

Federal Tag Standards for Extensible Markup Language

GS018T1

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Mark R. Crawford
Donald F. Egan
Angela Jackson

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LOGISTICS MANAGEMENT INSTITUTE
2000 CORPORATE RIDGE
MCLEAN, VIRGINIA 22102-7805

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Chapter 1

Introduction

BACKGROUND

Like the World Wide Web, the Extensible Markup Language (XML) has literally exploded into our society. XML is a simple but sophisticated means for marking up documents to exchange data between business partners, display and capture data on the web, store and retrieve data in databases, and use data in applications. In its original form, XML was a World Wide Web Consortium (W3C) technical report holding recommended status.¹ In its current, more complex state, XML consists of equal parts of the family of XML-related W3C technical reports, the developing XML business standards, and the XML-based applications and products that are based on the technical recommendations and business standards. In its real world application, XML contains attributes of electronic data exchange (EDI), Hypertext Markup Language (HTML), object-oriented modeling, and more.

Industry trade periodicals, vendor marketing materials, and trade show presentations routinely proclaim XML as the silver bullet to resolve all interoperability problems plaguing the information technology community. Many public and private organizations are rapidly and widely implementing XML-based solutions. In the private sector, the pace of implementation often is being driven by the desire to gain market share—by either selling XML tools or applying XML to improve performance in specific business areas. As an information technology society, we are repeating the chaotic experience of the 1970s: using competing approaches to develop larger computer applications, improve telecommunications, and use EDI. However, this time, the environment is much larger and more complex. One corporate executive was quoted in *ComputerWorld* as saying that many companies would be reluctant to “abandon 15 years of EDI development to move to a system reliant upon XML, especially since there are no widely used standards for the data tagging language and more than 100 variants of it.”²

The answer is not to slow XML development, but to establish standards more rapidly than we did with EDI. Several industry organizations have recognized this problem and are working on creating standards. Some of these groups, which are mostly consortia of private companies, are Commerce One and its XML Common Business Library (xCBL), the Electronic Business XML (ebXML) Initiative, the Organization for the Advancement of Structured Information Standards (OASIS),

¹ The core XML specification is located at: <http://www.w3.org/TR/REC-xml>.

² *ComputerWorld* B2B E-Commerce Newsletter. Taken from the Internet: http://computerworld.com/cwi/story/0,119,NAV47_STO57892_NLTpm00.html.

and RosettaNet. However, these diverse groups, while generally following similar approaches and nominally working together, are not closely coordinating their respective vocabularies and mostly represent specific industry interests.

Like industry, many federal, state, local, and other public entities have become aware of the potential of XML and are rapidly (and mostly independently) planning and implementing XML applications. Before this development proceeds too far, the federal government can develop federal standards for XML components that will simplify and streamline cross-agency implementation.

PURPOSE AND SUMMARY

The General Services Administration (GSA) tasked the Logistics Management Institute (LMI) to review different XML tag dictionary initiatives to determine if the federal government can adopt a single standard for establishing XML tags.

To establish an initial focus to this effort, GSA nominated the XML tags of a set of widely used federal forms as a pool of data elements to study. These forms included several grant forms and a set of XML tags that had already been built for an electronic federal grant application. GSA also asked us to include tags developed by RosettaNet for ordering products.

In addition to establishing an approach, we were tasked to develop preliminary strategies for standardizing XML and data elements beyond simply assigning tags.

Issues that have arisen from this analysis are

- ◆ the actual naming of data elements or fields,
- ◆ general or specific names for data elements or fields,
- ◆ rules for structuring the data elements or fields, and
- ◆ the establishing of limits to the length of a data element or field name.

The data set of elements that resulted from even this relatively small sample size was very large—more than 8,000. To bring the number down to a more manageable limit, we focused on several widely used data elements, such as name, organization, and dates. This group of data elements was not only the most common but also often the most complex.

In reviewing the data set, we found that, although all the industry groups were following similar paths, they diverged in detail. Most of these efforts also are in their initial stages. Currently, RosettaNet is the most fully developed. The ebXML endeavor, although important because it is the only initiative with the formal backing of a neutral, internationally recognized standards body, probably has

made the least progress toward a completed dictionary. However, ebXML has established a coherent set of design rules derived from International Organization for Standardization (ISO) standards for data dictionaries.

One other issue quickly became evident: the federal forms GSA provided indicate that the government has immediate areas of interests (e.g., personnel management and grants) currently ignored by industry efforts. For these reasons, we believe that the federal government should—in conjunction with the soon-to-be-finalized ebXML core-component technical specifications—establish a set of rules and specific tags that will meet its needs, and that these closely align to what is present in industry. We also believe that establishing a set of XML tags is only an initial step. Many new requirements will emerge and many of them will be unique to the government. An ongoing mechanism is necessary to meet these new requirements. Further, tags are only the tip of the component-standards iceberg. Document-type definitions (DTDs) and Schemas are the means for defining an XML business transaction (roughly equivalent to an EDI transaction set); the government also will need to participate in creating them as well.³

ORGANIZATION OF THE REPORT

We have organized the remainder of this report as follows:

- ◆ Chapter 2, *Tag Analysis*—Reviews the sources of existing XML tag dictionaries and key federal forms and describes our methods of organizing and analyzing that data.
- ◆ Chapter 3, *Guidelines and Recommendations*—Presents our recommendations for establishing guidelines for federal XML tag use.
- ◆ Appendix A, *Combined Dictionaries*—Contains a spreadsheet of a subset of the data that we reviewed. For selected data elements, it identifies the tag or data element name used by each of our data sources.
- ◆ Appendix B, *Abbreviations*.

³ Schema's come in two types—those that conform to the W3C Schema specification and those that are based on other specifications. To ensure clarity and maintain the proper reference, Schema with a capital 'S' will refer to the W3C Schema specification and schema with a small 's' will refer to those that are based on other specifications.

Chapter 2

Tag Analysis

SCOPE

The initial and primary goal of our study was to determine how applicable existing industry approaches to XML tag dictionaries were for jump-starting federal efforts. To provide a framework for the review, GSA nominated 21 federal optional forms (OFs) and standard forms (SFs), including those for personnel, procurement, and grants. The specific forms are listed in Table 2-1. In addition to these forms, GSA asked us to specifically include RossetaNet item-order transactions (which they call Partner Interface Profiles [PIPs]) and LMI and GSA efforts to establish XML tags for an electronic grant application. Although the forms served as a starting point for the analysis, we were not concerned with the forms themselves but simply used them as a source of widely used data elements. After establishing this set of widely used federal data elements, we compared them against existing industry XML dictionaries to determine how well they matched. For this part of the effort we were concerned only with finding appropriate XML tags. We did not consider other attributes of the elements (e.g., length or format).

Table 2-1. Federal Forms

Form number	Title
OF 306	Declaration for Federal Employment
OF 307	Contract Award
OF 308	Solicitation and Offer—Negotiated Acquisition
OF 612	Optional Application for Federal Employment
SF 26	Award/Contract
SF 30	Amendment of Solicitation/Modification of Contract
SF 33	Solicitation, Offer and Award
SF 85	Questionnaire for Non-Sensitive Positions
SF 85P	Questionnaire for Public Trust Positions
SF 86	Questionnaire for National Security Positions
SF 86A	Continuation Sheet for Questionnaires
SF 129	Solicitation Mailing List Application
SF 171	Application for Federal Employment
SF 254	Architect—Engineer and Related Services Questionnaire
SF 255	Architect—Engineer and Related Services Questionnaire for Specific Project

Table 2-1. Federal Forms (Continued)

Form number	Title
SF 294	Subcontracting Report for Individual Contracts
SF 295	Summary Subcontract Report
SF 424	Application for Federal Assistance
SF 424A	Budget Information—Non-Construction Programs
SF 424B	Assurances—Non-Construction Programs
SF 424C	Budget Information—Construction Programs
SF 424D	Assurances—Construction Programs

COMMERCIAL SOURCES OF TAGS

We evaluated the federal data elements against the following industry sources of XML tags:

- ◆ Commerce One's xCBL™
- ◆ ebXML
- ◆ OASIS
- ◆ RosettaNet™

The following subsections briefly describe each of these efforts and the origins of their respective dictionaries and tag sets.

Commerce One

Commerce One's xCBL is a dictionary of a comprehensive set of XML formats that enable buyers, sellers, and service providers to quickly integrate existing technologies and standards with XML to accelerate entry into the marketplace.

Commerce One's xCBL version 3.0 contains a full set of documents and documentation for industry. xCBL is built from a set of document components or "building blocks" that are reused by businesses to support automation of multiple-company supply chains, collaboration, direct and indirect procurement, planning, auctions, invoicing, and payment in an international multiple-currency environment. The genesis of xCBL versions 2.0 and 3.0 was an analysis of EDI standards for a number of large industries, including automotive, aerospace, finance, transport, energy, and retail.¹ Commerce One's xCBL supports direct goods scenarios and Enterprise Resource Planning (ERP) integrations. It also supports various

¹"Commerce One, Along with Industry Leaders, Establishes Next-generation Standards to Power Open E-marketplaces," Commerce One press release, Hong Kong, November 29, 2000, <http://www.commerceone.com/news/us/xcb130.html>.

standards, such as RosettaNet and Open Buying on the Internet (OBI), along with many varieties of industry-standard X12 and United Nations Center for Trade Facilitation and Electronic Business (UN/CEFACT) EDI. Commerce One's xCBL is offered in schema for object-oriented XML (SOX) format, Microsoft's XML-Data Reduced (XDR) schema language format, and XML DTD format to support all types of applications.²

ebXML

Electronic business XML is a joint initiative of the United Nations Center for Trade Facilitation and Electronic Business (UN/CEFACT) and OASIS.

ebXML enables a global electronic marketplace where enterprises of any size and in any geographical location can meet and conduct business with each other through the exchange of XML-based messages.³

The ebXML effort should be considered a work in progress. Phase I finished in May 2001. Phase II is commencing, with full ramp-up expected in September 2001.

Federal Grants Work

LMI has worked with a number of agencies that award federal grants. A few years ago, we developed an American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12-approved EDI transaction set (194) to carry an electronic grant application. More recently, we developed XML tags and a DTD for this set of data. We input the data into this analysis but did not generally use the data because it represents our own work in a very narrow area, and we developed the data some time ago.

OASIS

OASIS is an international non-profit organization, working in conjunction with industry partners to develop open international standards to help define a variety of markup language standards. Composed of more than 150 companies, OASIS hopes to promote electronic business by using open and interoperable standards.

The mission of OASIS is to promote and encourage the use of structured information standards, such as XML, with the goal to develop vertical industry applications, conformance tests, and interoperability specifications that make those core standards useable. OASIS does not compete with standards bodies, but rather builds upon and supplements their work.⁴

² <http://www.xcbl.org>.

³ <http://www.ebXML.org>.

⁴ <http://www.oasis-open.org>.

One such body, The Data Consortium Namespace (DCN) is an open-membership group of more than 50 companies and associations whose goal is an open-source standard namespace for the commercial real estate industry. To that end, DCN has created a preliminary annotated DTD that defines just 13 elements: account, actor, document, entry, event, item, location, property, right, role, service, system, and transaction.⁵

OASIS technical work generally falls into one of the following categories:⁶

- ◆ *Vertical industry applications*: Development of applications of XML or Standardized General Markup Language (SGML), such as Schemas/ DTDs, namespaces, style sheets, that may be used in specific vertical industries.
- ◆ *Interoperability*: Development of specifications and standards that define how other standards will work together, or how earlier, non-XML standards can work in an XML world.
- ◆ *Conformance testing*: Development of test scenarios and cases that can determine what it means to conform to specific standards (e.g., What does it mean to “be XML?”)

Although OASIS has a number of vertical-industry XML initiatives underway, to the best of our understanding OASIS is not planning to develop a single unified dictionary. OASIS prefers to provide an umbrella structure for individual industry and trading partner working groups to operate. To date, these groups have not proceeded too far.

The one OASIS dictionary that we found on the Internet—from the OASIS Northwest group—is SGML rather than XML-based, and is very dated (1996). This pre-dates most XML efforts, but it is a general framework for determining how this group is developing tag structures. Because the dictionary is SGML-based, there may have been syntax rules used in its development that do not fall within the subset of XML syntax rules.

RosettaNet

RosettaNet is a self-funded, non-profit consortium of more than 400 companies that began as an effort to create XML standards for the information technology (IT) supply chain. It has since grown from a U.S.-based effort to one of international participation and has expanded beyond the IT supply chain to include electronic components and semiconductor manufacturing as well.

⁵ <http://xml.coverpages.org/dataConsortium.html>.

⁶ <http://www.oasis-open.org/committees/index.shtml>.

RosettaNet has three dictionaries:

- ◆ Business Dictionary
- ◆ EC Technical Dictionary
- ◆ IT Technical Dictionary.

The RosettaNet business and technical dictionaries are a repository of tags that describe the properties or characteristics of business and technical processes between trading partners. These tags can be implemented using RosettaNet PIPs, which are unique dialogues specific to a business process. The PIPs “define business processes between supply-chain companies” and provide “the models and documents for the implementation of [RosettaNet] standards.” Table 2-2 identifies the PIPs available at the time of our review.

The RosettaNet Implementation Framework (RNIF), a group of common exchange protocols, forms the basis for each RosettaNet PIP. For this study, we used only data from the business properties dictionary.

Table 2-2. Partner Interface Profiles

Number	Title
Cluster 0:	RosettaNet Support
Cluster 1:	Partner, Product and Service Review
Segment 1A:	Partner Review
Segment 1B:	Product and Service Review
Cluster 2:	Product Information
Segment 2A:	Preparation for Distribution
Segment 2B:	Product Change Notification
Cluster 3:	Order Management
Segment 3A:	Quote and Order Entry
PIP 3A1:	Request Quote
PIP 3A2:	Request Price and Availability
PIP 3A3:	Transfer Shopping Cart
PIP 3A4:	Manage Purchase Order
PIP 3A5:	Query Order Status
PIP 3A6:	Distribute Order Status
PIP 3A7:	Notify of Purchase Order Acceptance
Segment 3B:	Transportation and Distribution
PIP 3B1:	Distribute Transportation Projection
PIP 3B2:	Notify of Advance Shipment
PIP 3B3:	Distribute Shipment Status
PIP 3B4:	Query Shipment Status

Table 2-2. Partner Interface Profiles (Continued)

Number	Title
PIP 3B5:	Request Shipment Change
PIP 3B6:	Notify of Shipments Tendered
Segment 3C:	Returns and Finance
PIP 3C2:	Request Financing Approval
PIP 3C3:	Notify of Invoice
PIP 3C4:	Notify of Invoice Reject
PIP 3C5:	Notify of Billing Statement
PIP 3C6:	Notify of Remittance Advice
Segment 3D:	Product Configuration
PIP 3D8:	Distribute Work in Process
PIP 3D9:	Query Work in Process
Cluster 4:	Inventory Management
Segment 4A:	Collaborative Forecasting
Segment 4B:	Inventory Allocation
Segment 4C:	Inventory Reporting
Segment 4D:	Inventory Replenishment
Segment 4E:	Sales Reporting
Segment 4F:	Price Protection
Cluster 5:	Marketing Information Management
Segment 5A:	Lead Opportunity Management
Segment 5B:	Marketing Campaign Management
Segment 5C:	Design Win Management (EC)
Segment 5D:	Ship from Stock and Debit (EC)
Cluster 6:	Service and Support
Cluster 7:	Manufacturing

METHOD

LMI input all of the tags from these groups into an electronic spreadsheet. This limited set of data resulted in more than 8,400 separate name entities.⁷ Each row is a specific XML tag from one of the sources. The subsequent columns identified which of the six sources (i.e., federal form, RosettaNet PIP, etc.) the tag came from. The cells contain the document that generated the tag.⁸

⁷ For each row of the spreadsheet, each data element field on a federal form was considered a “tag” although they clearly are not. All other rows consist of an actual XML tag from one of the dictionaries.

⁸ For federal forms, the cell contains the form numbers. For RosettaNet, the PIP numbers. For LMI grants, a general area of the application data. For ebXML, Commerce One (xCBL), and OASIS, the cell simply identifies them as the source because no specific documents exist.

An immediate review of the data clearly indicated that the sample size was too large to review in the scope of this project even from such a small source. The second fact that became immediately obvious was the wide diversity of terms that encompassed similar concepts, such as names and dates.

To address these two issues, we created a separate subset of the list that included only a core set of data elements we believe would be widely used in an application. These elements include

- ◆ name,
- ◆ address,
- ◆ contact,
- ◆ telephone,
- ◆ date,
- ◆ time,
- ◆ quantity, and
- ◆ amount.

We then added a column citing one of the above terms and applied a filter to “bring together” any tag with the term contained. The resultant spreadsheet from which we conducted most of our analysis is shown in Appendix A. The spreadsheet is only a subset of the complete set of terms drawn from the sources.

In comparing the industry dictionaries, both to the federal data elements and among one another, we attempted to answer several questions, including the following:

- ◆ How many matches are there between the dictionary tag names and the federal data element names?
- ◆ What is the tag structure (e.g., words run together with initial caps)?
- ◆ What is the extent of the design rules that were used to develop the tag names that can also be used to extend beyond the current set?
- ◆ How do the different dictionaries address some very common but complex data element structures, such as name and address?

OBSERVATIONS AND CONCLUSIONS

To What Extent Did the Tags from the Industry Dictionaries Match the Federal Data Elements?

We made several immediate observations. First, even with our reduced set, the number of apparent entries was large (see Table 2-3). For example, 489 distinct date data elements (or tags) exist. The entry for “address” is misleadingly small. Most of the actual address components were identified by other names, such as city, state, and zip.

Table 2-3. Number of Entries by Category

Category	Number of entries
Name	357
Date	489
Time	160
Address	41
Agency	12
Contact	206
Telephone	56
Amount	172
Quantity	186

Our second immediate observation was that exceedingly few matches of tags across the groups were “exact.”⁹ However, in many cases there were matches in concept but not in exact wording. For example, there are both “Delivery.Scheduled.Date” and “ScheduledDeliveryDate.” RosettaNet does not use either of these, but has “RequestedDeliveryDate,” which may or may not have the same meaning.

Less obvious in the subset spreadsheet in Appendix A—but very obvious when we reviewed the master spreadsheet—is the very large number of data elements drawn from the federal forms that do not have a corresponding entry in any of the industry dictionaries. Not surprising, federal elements distinct to personnel management and grants did not appear in industry dictionaries oriented toward commerce and technology. Most of the matches—or partial matches—occurred in the procurement sections and the “common terms.”

⁹ Bear in mind, one of the tag groups is the federal form data element name.

What Is the Extent of the Industry Dictionaries?

The following summarizes our analysis of the industry dictionaries:

- ◆ RosettaNet clearly possesses the largest dictionary. Further, they have taken an important step to incorporate the data elements into discrete business transactions (PIPs).
- ◆ ebXML has a comparatively small dictionary. They just began seriously developing business areas in February 2001.
- ◆ The Commerce One xCBL version 3.0 tag set is second in size only to the RosettaNet dictionaries. The xCBL version 3.0 specification is a wide-ranging set of messages for interoperability across a broad range of direct goods and procurement scenarios, for use as a central language for managing different syntaxes, and for sending a simple set of messages for e-commerce.
- ◆ OASIS is an open, democratic process that gives all interested parties, regardless of their standing in a specific industry, an equal voice in creating XML applications. OASIS, as a co-sponsor of ebXML, has held XML vocabulary work in abeyance. The only published OASIS markup language dictionary is based on SGML, is dated, and does not represent the emerging OASIS XML-based technical committees now forming.

What Is the Tag Structure?

On this subject, there is substantial agreement. Commerce One, OASIS, ebXML and RosettaNet all use initial capitals (sometimes called camelcase) with the words run together for data elements. ebXML differentiates between element names and attribute names by applying UpperCamelCase for elements and lowerCamelCase for attributes. ebXML tag structure will be based on the ebXML core component data dictionary names.

Is There a Published Set of Design Rules?

Having a set of underlying rules for tag names (and other XML components) is important for the government because it will move quickly into areas where the existing dictionaries have not yet penetrated. EbXML has proceeded further in establishing rules for tag names than the other groups. In contrast to ebXML, the other groups have prioritized development of their dictionaries. Well-defined rule

sets may exist, but we were unable to find them at the sponsors' Web sites. The following summarizes the different approaches to tag design rules of the various bodies:

- ◆ ebXML—the majority of ebXML's initial efforts have focused on developing the underlying rules for developing components rather than developing the tag dictionaries themselves. Much of their work on data element names and subsequent tags derives from an existing ISO standard for data element dictionaries—ISO IS 11179. We address some of the most important of these rules later.
- ◆ RosettaNet—in reviewing RosettaNet documentation, we found this indication that the design rules have yet to be developed (emphasis added):

Many of the elements in the Service Header of business action and signal messages make use of fields extracted from PIP specifications. It is assumed that in the near future PIPs will be published in machine sensible XML formats so that the construction...can be automated. *As a prerequisite, the grammar and schema to which all XML-based PIP specification MUST conform will have to be specified.*¹⁰

- ◆ xCBL 3.0—the tag design rules are unclear. In an e-mail exchange with a lead designer of xCBL, we were informed there were no formal naming conventions or design rules.¹¹ We can only surmise, given the origins of Commerce One's efforts, the tag names largely came from a combination of ANSI ASC X12 and UN EDI for Administration, Commerce, and Transport (UN/EDIFACT) EDI element dictionaries with little or no harmonization effort applied.
- ◆ OASIS—no universal set of design rules. Individual OASIS technical committees are allowed to develop their own ad hoc design rules without regard to consistency across competing or complementary efforts under the OASIS banner.

In the following section, we discuss one of the many cases of why a set of design rules is needed.

How are the Keywords of a Data Element Defined and Ordered?

This section deals with the issue of what words and in what order the words are used to create a tag. We will use a few examples to illustrate the possible diversity

¹⁰ RosettaNet Implementation Framework Core Specification, Version: Release 2.00.00, January 3, 2001. Section A.1 p.1.

¹¹ E-mail exchange between Jack Gager of Commerce One and Mark Crawford of LMI on 10 April 2001.

of tags. The concept of scheduled delivery date could use any of the following very reasonable choices:

- ◆ ScheduledDeliveryDate
- ◆ DeliveryScheduledDate
- ◆ DateDeliveryScheduled (not used)
- ◆ DeliveryScheduledForDate (not used).

Which of these is best? RosettaNet uses “ScheduledDeliveryDate.” Commerce One does not have this specific choice but most similar entries conform to this pattern, although Commerce One’s dictionary contains both “EarliestDeliveryDate” and “DeliveryDateEarliest.” OASIS also does not have this element but uses “ScheduledShipDate.” We assume that “ScheduledDeliveryDate” was chosen because it is the most English-like of the choices.

ebXML chose “DeliveryScheduledDate” because their design rules are derived from ISO 11179-5. The ISO standard defines multiple components that may be used to construct data element names. The ebXML technical document dealing with data element names selects three specific ISO 11179-5 components for ebXML core component data element dictionary names:

- ◆ An object class (words that define primary concept of the element)
- ◆ A property (words that modify the object class)
- ◆ A representation type. Representation types define the format of the data element into broad types. They should be selected from an approved list. Draft ebXML types are: amount, code, boolean, date, time, date and time, identifier, name, quantity, number, rate, text, measure.

An example of this construction is: *Tree Height Measure*. *Tree* is the object class, *Height* is the property, and *Measure* is the representation type. Application of this rule to our example results in *DeliveryScheduledDate* although it is not the most English-like choice.

All of the dictionaries follow the above rule to the extent that they mostly end the tag with the representation type. A review of the “Amount and Quantity” section of the spreadsheet shows that the dictionaries follow this rule; however, sometimes a group deviates from the rule toward everyday language. For example, both Commerce One and RosettaNet deviate from their own pattern and use *TotalAmountDue* instead of *TotalDueAmount*.

Although the word choices are different in layout, they all obviously mean the same thing. However, what do “expected,” “estimated,” “requested,” “promised,”

and “scheduled” mean in terms of delivery date? Is “arrival” the same as “delivery?” All of these terms can be found under dates in the spreadsheet in Appendix A.

Examples of Additional Rules in ISO 11179 and ebXML

ISO 11179, *Information Technology Specification and Standardization of Data Elements, Part 5—Naming and Identification Principles for Data Elements*, establishes rules for naming elements for data dictionaries. Its principles can readily be applied for XML tags as well, and the ebXML documents^{12, 13} also reference the ISO standard. It should be noted, ISO 11179 fully supports transformation between dictionary entry names and XML tags and essentially recommends the tags replicate the components used for the dictionary entry name. For this paper, we have identified a simplified set of the ebXML core component naming rules.

- ◆ *Semantic rules*—the tag’s name should consist of up to three components: object class (the primary element), property term (modifying the element), and representation type. For example: *Tree Height Measure*. *Tree* is the object class, *Height* is the property term, and *Measure* is the representation type. Similarly in *Estimated Delivery Date*. *Deliver* is the object class, *Estimated* is the property term, and *Date* is the representation type.
 - Representation types should be selected from an approved list. The following are the allowable ebXML types: amount, code, date, date and time, identifier, indicator, measure, name, percent, quantity, rate, text, time.
 - Order of the components should be governed by the rule of reversal. This can be tested by placing the word “for” or “of” (or “for the” or “of the”) between each of the terms, and reading *right to left*, which should result in a statement that makes sense.
- ◆ *Syntactic rules*—
 - There must be at least one object class.
 - There will be at most one property term.
 - There will be only one representation type.
 - The components (object class, property term, representation type) will be separated by dots and a following space character.

¹² ebXML Technical Report, *Naming Convention for Core Components*, Version 1.04, 10 May 2001.

¹³ ebXML Technical Specification, *ebXML Technical Architecture Specification*, Version 1.0.4, 16 February 2001.

- ◆ *Lexical rules*—
 - *Oxford English Dictionary* spellings must be used.
 - Entries should generally be singular, not plural.
 - Object and property classes may be composed of multiple words with an ISO 11179-approved space character between components of a set.
 - Redundant words should be eliminated. For example, “Employee Last Name Name.” The word “name” is both the second part of the property and the representation type. This would be simplified to “Employee Last Name.”

How do the Dictionaries Deal with Some Common but Complex Data Elements?

As the government proceeds through its business processes, many complex data elements and concepts will emerge. In this review, we focus on a few examples. One of the most pressing for federal use is how to identify individual names. Federal paper forms typically have a single name block. However, this is misleading because when data are entered into application systems, they often are broken down into name components. Many application systems do contain only a single field for a name. Some of these systems place last name first, and some—first name first. We believe that clearly for many, if not most, applications the federal government must be able to completely parse an individual’s name. The overwhelming number of names can be covered by the following components:

- ◆ Name prefix (Mr., Ms., Mrs., Capt., Dr., etc.)
- ◆ First name
- ◆ Middle name
- ◆ Last name
- ◆ Name suffix (Jr., III, etc.).

Although we indicated we would not generally refer to LMI’s grants work, here we must. In the original EDI implementation of the grant application, LMI used the relatively new X12 NM1 segment, the 194 transaction set for grants. We used that segment specifically because the older N1 segment contained only a single name component while the NM1 supports the construct described above.^{14,15} The federal agencies—particularly those issuing research grants believed their customer base required this level of identification.

¹⁴ N1 is an ASC X12 identifier for the ‘Name’ segment.

¹⁵ NM1 is an ASC X12 identifier for the ‘Individual or Organizational Name’ segment.

A review of the spreadsheet shows that ebXML, Commerce One, and OASIS all provide for name components—although they used different tag names. RosettaNet, at least in the specific PIPs we reviewed, does not. Examples of their use are ContactName, ResponsiblePartyName, and ReceivedByName.

For those with name components, Commerce One uses LastName and OASIS uses FamilyName. ebXML uses PersonLastName. Only ebXML uses a prefix and a suffix. ebXML also has available an alternative PersonFullName.

Turning to organization names, RosettaNet uses the generic BusinessName in several PIPs and ManufacturerName in two. ebXML has no element clearly associated with a generic organization name, except PartyName. All of the dictionaries use specific instances, such as CarrierName (ebXML), CardholderName (Commerce One), and CompetitorName (RosettaNet).

Among the other most common but complex terms are address and contacts, which can be related to either individuals or organizations. Typical address and contact components include the following:

- ◆ Street address (often multiple)
- ◆ City (often county)
- ◆ State
- ◆ Country
- ◆ Zip/postal code
- ◆ Telephone
 - primary
 - facsimile
 - mobile
- ◆ E-mail
- ◆ Universal resource locator.

Such addresses are found in almost every type of business transaction and often multiple times in any given one. For example, a government-buying document may contain addresses for buying organization, procurement organization, ship-to organization, and selling organization. Two approaches are likely for assigning tags to these items. One approach is to make distinct tags for each function and element. In our buying example, there would have to be a BuyingPartyStreetName, BuyingPartyCity...BuyingPartyURL. There would also have to be a

SellingPartyStreetName, SellingPartyCity...SellingPartyURL. This would be repeated for all types of individuals and organizations in all types of documents—a prodigious list. The other approach would be to create a generic address-component data-element name and then assign a metadata code to define the address function (buyer, seller, etc.).

In the sample set, ebXML has both specific entries and capabilities for a generic approach, perhaps indicating that their direction in this matter is not yet clear. The RosettaNet entries are only at a very high level (e.g., PhysicalAddress and ContactInformation), with few of the individual components.

Beyond this address and contact data, many data elements, including dates, quantities, and amounts, also have a multitude of specific uses.

EDI standards use qualifier codes to create and define many generic data elements. For example, in the X12 standards there is a single “date” data element (#374). Data element (#373) provides a qualifier with a large number of codes (e.g., date shipped or date of check), which define the meaning of that date in a specific exchange. None of the XML dictionaries propose this approach.

CONCLUSIONS

From our review, we draw the following conclusions:

- ◆ No single existing data dictionary approximates even initial federal data elements. Although RosettaNet does contain a robust set of procurement terms, it does not deal with key government business areas, such as personnel management and grants. A review of the collection of dictionaries shows there already is a tremendous proliferation of tag names and variations on similar elements (the delivery date example).
- ◆ EbXML, using the ISO Standard 11179, has the most developed set of design rules for both dictionary entry names and their conversion to XML tags and attributes.
- ◆ It appears that RosettaNet has yet to publish its grammar rules and many existing RosettaNet and Commerce One tags would be inconsistent if the ISO 11179 rules were applied to them.
- ◆ The dictionaries did have several things in common:
 - Tag format (CamelCase)
 - Not using qualifiers to the extent EDI does, and

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- General but inconsistent use of the object, property, and representation components, with representation generally being the last element. The first component of a tag was used with much less consistency.

Although we do not believe any of the existing dictionaries are sufficiently comprehensive to be the one source for the federal government, we believe the government can chart a course that will be consistent with the bulk of industry work. This course addresses most of the questions raised in this chapter. We describe the course in the next chapter.

Chapter 3

Guidelines and Recommendations

Although several hundred commercial consortia are developing XML tags and dictionaries independently, only a few represent neutral standards-based efforts. Of those, ebXML appears to hold the most promise for establishing syntax-neutral dictionaries that will support not only XML vocabularies, but other syntax specific vocabularies as well. All of these groups are in the early stages of their efforts and will evolve in perhaps unforeseen ways. In this chapter, we make recommendations for the federal government to draw from all the consortia's efforts. The federal government can use these efforts to establish a process for federal tags, which will not follow any single approach, but perhaps help in drawing them closer to one another.

THE FEDERAL GOVERNMENT SHOULD ADOPT A DEFINED SET OF RULES FOR DEVELOPING XML TAGS

Federal agencies and other public entities are going to require many XML tags, and they will need them soon. Because the existing dictionaries do not focus on many of the government's business processes, the government will need to develop new dictionaries (in concert with industry and the public). The dictionaries could best be developed if an underlying set of rules existed that could be applied to direct this work. ISO 11179 offers a sound basis for these rules. Although intended for data dictionaries, many of the standard's principles can be applied to data element names in databases and for XML. Indeed, one of the advantages of XML is that its tags are much more useful for databases than EDI segment and element tags. EbXML is extending the ISO 11179 work, and their suite of technical specifications and technical reports provides a sound approach to this problem. We have already identified many of the ebXML rules, including the key object-class, property, and representation-type structure.

The following are additional suggestions that are not contained in the ebXML model:

- ◆ Tags should be limited to 4–6 words and a total of 30 letters. The words are limited simply to prevent verbosity. The latter limit is a data element limit for Oracle database names. Although referencing proprietary products is not entirely appropriate, Oracle is a dominant supplier of federal systems. Also equating XML tags and the database data element names certainly is not necessary, but it would be a further streamlining effort.

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- ◆ The ISO 11179 standard allows abbreviations and acronyms. However, because the general intent is to make XML tags readable, abbreviations should be discouraged. Acronyms are a major part of the federal vocabulary and should be accepted. For example, GSA is acceptable but Est-DelDate is not.

TAG FORMATS

Technically, tag formats are a part of the design rules, but because they are such a visible item, we have listed them separately. RosettaNet, Commerce One, and the early OASIS examples all string words together with initial capital letters—CamelCase. *ReceivingOrganization* is an example. The ebXML technical documents show the same approach for tags, but they also include a period followed by a character space between the words that comprise the dictionary entry name. ISO 11179 supports character separators between the components of both dictionary entry and tag names. The main rationale for placing the period or other character between words is it reduces possible confusion about word breaks (e.g., *ReceivingGSAOrganization* may be more ambiguous to computer processing than *Receiving.GSA.Organization*). Using the separator character and initial caps makes for human readability and the ability for computer programs to convert to another format if necessary. LMI favors XML tags being constructed using the three ISO 11179 dictionary entry name components used by the ebXML core components.¹ This will provide a level of consistency to tag development and serve to minimize tag proliferation. LMI somewhat favors using a separator character without a character space (it is often done in databases as well, with the underscore or dash being the usual character), but consistency with industry may be worthwhile on this point.

RECOMMENDATIONS FOR COMMON-COMPLEX DATA ELEMENTS

For a select set of “common-complex data elements,” we recommend establishing generic data elements and developing a set of metadata role or function codes. These would primarily be name, address, and contact data as we discussed earlier. This approach somewhat reduces the proliferation of tags. Further, it supports typical database design where all names and addresses often are defined in a single table.

However, for most elements, we suggest following the industry lead and not creating a large number of generic data elements and qualifier codes as was done in EDI. Hence, dates, amounts, and quantities (to name only a few) would be specific individual tags (e.g., *InvoiceQuantity* and *InventoryQuantity*).

¹ ebXML Technical Report, Naming Convention for Core Components, Version 1.04, 10 May 2001.

NEXT STEPS

Aligning with a Standards Process

The ebXML suite of technical specifications and related joint UN/EDIFACT and ANSI ASC X12 core component development work represent the only neutral, horizontal-based, accredited XML business standards development effort. The federal government would be well suited to align any tag development effort with both the ebXML core component specifications and actual work underway within the joint core component development effort. It would be possible for the government to quickly develop tags and related core components that could subsequently be submitted to the standards body for inclusion in their efforts.

Establishing Specific Tag Names within Selected Federal Business Areas

We have identified a set of recommended rules that define how the government should develop XML tags. We believe they align well with both ISO 11179 use in data dictionaries and database naming conventions, as well as the still-evolving ebXML standards and commercial dictionaries. However, because of the diversity of these dictionaries, the tags cannot be consistent with all of them.

Once the government has reviewed, revised, and approved the general rules, the rules can *quickly be applied to any set of terms*. We recommend focusing on a single business area and then expanding the effort from there. In our discussions with the government about data elements, three business areas have been consistently emphasized as important:

- ◆ *Grants* (both research and other). This is a large business area for the government and mostly unique to the government, although it has diverse trading partners. Grants also are a currently dynamic area of cross-agency activity and efforts to move to electronic processing.
- ◆ *Personnel forms*. This is a very large business area for the government, with cross-agency application. Although personnel forms also are critical to private industry, this business area does not receive heavy emphasis because few commercial opportunities or inter-company personnel efforts exist. Personnel is another area in which interagency efforts are increasing.
- ◆ *Procurement and material management*. This business area has wide appeal for several reasons:
 - It is already highly automated, and much of it is already used for electronic exchanges (EDI and proprietary formats).

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- It is used in government, in private industry, and between the two. It is literally the engine that drives the economy.
 - It is a high volume area and its effective management is critical to any organization dependent on material for operating.

We believe that any of these business areas would be an excellent starting point for the government, and when one is complete, the government could move on to the next.

BEYOND TAGS

Establishing a consistent set of federal XML tags is an important first goal. However, the need will quickly arise for moving beyond that point. It will also be necessary to establish

- ◆ an ongoing mechanism for establishing additional names; and
- ◆ similar mechanisms for other XML components, particularly DTDs and Schema, which are the basis for managing complete business transactions.

Establishing a Federal Process for XML

By whatever means the initial set of XML tags are developed, a process is needed for all interested federal agencies to participate and for the public and industry to comment. There also needs to be a long-term mechanism for proposing, reviewing, approving, and disseminating new tags.²

Establishing a Federal XML Registry and Repository

One of the characteristics that distinguishes XML development from EDI is the availability of both technical tools and concepts to support XML that did not exist 35 years ago with the advent of EDI. One such capability is a Web-enabled registry/repository³ to maintain XML components. An XML registry will provide a single, easily accessed source to display federal XML business standards. Also, an XML registry can be used to assist with developing standards for classifying components as they proceed through the approval process.

The repository component can be even more powerful. In a traditional EDI environment, implementation conventions (IC) document the data exchange standards

² A good model for this process is the one used in developing federal EDI standards. In that model, Federal Information Processing Standard 161-2 established a process for managing federal EDI standards. Under the auspices of GSA and the National Institute of Standards and Technology, a federal-wide organization for managing EDI has been operating for several years.

³ A simplistic distinction between the two is that a registry is a storage mechanism for people to read and use. The repository is a storage mechanism for computer access to the XML components. LMI has produced a draft paper discussing the registry and repository issue for EPA.

between any two trading partners. Each trading partner uses the IC to program (map) their translation software to convert the data between EDI format and that of their application system. XML generators and parsers are the corresponding software types for XML. However, this software is capable of accessing a DTD (the XML equivalent of an IC) through a URL on the fly. Hence, a single repository can support federal-wide (including non-federal trading partners) management of federal XML business exchanges. This approach will dramatically reduce the time and cost to implement changes, control versions, and disseminate changes.

The ultimate extension of the registry would be to establish a federal data element dictionary, possibly followed by establishing federal data element standards. This last step is far more complex and difficult to accomplish than the previous goals. It is comparatively easy to establish a federal-wide mandate that a data element *Project Title* shall be identified as *Project.Title.Description*. Gaining consensus about a minimum length of 5 characters and a maximum length of 150 characters for data elements, and that the elements cannot contain special characters will be difficult. In the long run, consensus would be extremely beneficial, but enforcing data elements standards would immensely affect the cost of the installed base of application systems.

CONCLUSION

Data administration has proven to be a much desired but elusive goal for many organizations. Although its benefits are valuable and yield savings, in the near term, the cost and effort necessary for making data administration work make it hard to achieve. The advent of the World Wide Web, XML, and other related technologies are just the beginnings of a revolution in the way our society will collect, manage, and distribute data in the future. The wide-scale conversion to XML which has already begun, offers the federal government an opportunity to establish at least basic levels of data standardization and consistency that will simplify operations both in the government and those of external trading partners (public and private).

This paper identifies basic ground rules for establishing standard federal XML tags. Review and acceptance of a set of standard rules must be the first step. From there, applying the rules to specific business areas, transactions, and data elements can quickly and consistently follow.

Establishing the initial set of federal tags quickly is important before individual and diverse agency implementations proceed so far that recalling them will be impossible. However, federal management for establishing and maintaining new federal XML business standards and documentation must be ongoing.

Appendix A

Combined Dictionaries

Appendix A is a matrix of tag names and the standards efforts to which they belong.

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Name						
accountName		3A4				
AccountName1						xCBL
AccountName2						xCBL
AccountsPayables.Contact.Person.Name					ebXML	
AcknowledgementRecipient.Location.City.Name					ebXML	
AcknowledgementRecipient.Location.CountrySubEntity.Name					ebXML	
AcknowledgementRecipient.Location.Street.Name					ebXML	
AcknowledgementRecipient.Name					ebXML	
Action.Name					ebXML	
Action.Status.Name					ebXML	
ActionDirective.Name					ebXML	
ActionMethod.Name					ebXML	
Approval.PartyRole.Name Synonym(s):					ebXML	
Approval.Person/OrganizationRole.Name					ebXML	
Approval.Status.Name					ebXML	
ApprovalUsage.Name					ebXML	
assemblyName		5C2				
AttributeName						xCBL
AuctionAttributeName						xCBL
AuctionCategoryName						xCBL
AuctionCreateName						xCBL
AuctionItemName						xCBL
BankAccount.AccountHolder.Name					ebXML	
BankBranch.Location.Name					ebXML	
BankBranch.Name					ebXML	
BusinessFunction.Name					ebXML	
businessName		3A1, 3A3-5, 3C3, 4B2, 5C2, 5D1-2				
CardHolderName						xCBL
Carrier.Location.City.Name					ebXML	
Carrier.Location.CitySubEntity.Name					ebXML	
Carrier.Location.Country.Name					ebXML	
Carrier.Location.CountrySubEntity.Name					ebXML	
Carrier.Location.LocationInStreet.Name					ebXML	
Carrier.Location.Street.Name					ebXML	
Carrier.Name					ebXML	
Carrier.OrganisationAssigned.Name					ebXML	
CategoryName						xCBL
CertificateType.Name Broader term: DocumentType.Name					ebXML	
CharacteristicAttributeName						xCBL
CharacteristicName						xCBL
City.Name					ebXML	
cityName		1A1-2, 3A1-7, 3B1-6, 3C3, 5C2, 5C4-5				
CitySubEntity.Name					ebXML	
competitorName		5C2				
Consignee.Location.City.Name					ebXML	
Consignee.Location.CitySubEntity.Name					ebXML	
Consignee.Location.Country.Name					ebXML	
Consignee.Location.CountrySubEntity.Name					ebXML	
Consignee.Location.LocationInStreet.Name					ebXML	
Consignee.Location.Street.Name					ebXML	
Consignee.Name					ebXML	
Consignor.Information.Contact.Person.Name					ebXML	
Consignor.Location.City.Name					ebXML	
Consignor.Location.CitySubEntity.Name					ebXML	
Consignor.Location.Country.Name					ebXML	
Consignor.Location.CountrySubEntity.Name					ebXML	
Consignor.Location.LocationInStreet.Name					ebXML	
Consignor.Location.Street.Name					ebXML	
Consignor.Name					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
contactName		0A1, 1A1-2, 1B1, 2A1-7, 3A1-7, 3B1-6, 3C2-6, 3D8-9, 4A4, 4C1, 5C1-5, 5D1-2				
ContactName						xCBL
ContactParty.Location.City.Name					ebXML	
ContactParty.Location.Street.Name					ebXML	
ContactParty.Name					ebXML	
ContactParty.Transportation.Contact.Person.Name					ebXML	
Contract.Name					ebXML	
ContractType.Name					ebXML	
Country.Name					ebXML	
CountrySubEntity.Name					ebXML	
Customer.AccountsDepartment.Contact.Person.Name					ebXML	
Customer.DeliverySchedule.Contact.Person.Name					ebXML	
Customer.FinancialInstitution.Location.City.Name					ebXML	
Customer.FinancialInstitution.Location.Street.Name					ebXML	
Customer.FinancialInstitution.Name					ebXML	
Customer.Information.Contact.Person.Name					ebXML	
Customer.Location.City.Name					ebXML	
Customer.Location.CitySubEntity.Name					ebXML	
Customer.Location.Country.Name					ebXML	
Customer.Location.CountrySubEntity.Name					ebXML	
Customer.Location.LocationInStreet.Name Synonym(s):					ebXML	
Customer.Location.Building.Name						
Customer.Location.POBox.Name					ebXML	
Customer.Location.Street.Name					ebXML	
Customer.Name Synonym(s): Buyer.Name					ebXML	
CustomsAdministration.Location.City.Name					ebXML	
CustomsAdministration.Location.CitySubEntity.Name					ebXML	
CustomsAdministration.Location.Country.Name					ebXML	
CustomsAdministration.Location.CountrySubEntity.Name					ebXML	
CustomsAdministration.Location.LocationInStreet.Name					ebXML	
CustomsAdministration.Location.Street.Name					ebXML	
CustomsBroker.Information.Contact.Person.Name					ebXML	
CustomsBroker.Location.City.Name					ebXML	
CustomsBroker.Location.CitySubEntity.Name					ebXML	
CustomsBroker.Location.Country.Name					ebXML	
CustomsBroker.Location.CountrySubEntity.Name					ebXML	
CustomsBroker.Location.LocationInStreet.Name					ebXML	
CustomsBroker.Location.Street.Name					ebXML	
CustomsBroker.Name					ebXML	
DangerousGoods.Technical.Name					ebXML	
DeliveryLocation.Name					ebXML	
DeliveryLocation.RelatedLocation.Name					ebXML	
DeliveryLocation.RelatedLocation.SubRelatedLocation.Name					ebXML	
DeliveryParty.Location.City.Name					ebXML	
DeliveryParty.Location.CitySubEntity.Name					ebXML	
DeliveryParty.Location.Country.Name					ebXML	
DeliveryParty.Location.CountrySubentity.Name					ebXML	
DeliveryParty.Location.LocationInStreet.Name					ebXML	
DeliveryParty.Location.Street.Name					ebXML	
DeliveryParty.Name					ebXML	
DeliveryTerm.Name Synonym(s): DeliveryTerm.Name Context: Commerce					ebXML	
DeliveryTerm.OrganisationAssigned.Name					ebXML	
DispatchParty.Information.Contact.Person.Name					ebXML	
DispatchParty.Location.City.Name					ebXML	
DispatchParty.Location.Street.Name					ebXML	
DispatchParty.Name					ebXML	
Document.Contact.Person.Name					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Document.Name					ebXML	
DocumentRecipient.Information.Contact.Person.Name					ebXML	
DocumentRecipient.Location.City.Name					ebXML	
DocumentRecipient.Location.Street.Name					ebXML	
DocumentRecipient.Name					ebXML	
DocumentType.Name Narrower term(s): ElectronicDocumentType.NameCertificateType.Name					ebXML	
DutyType.Category.Name					ebXML	
DutyType.Name					ebXML	
ElectronicDocumentType.Function.Name					ebXML	
ElectronicDocumentType.Name Broader term: DocumentType.Name					ebXML	
ElectronicDocumentType.Requested.AcknowledgementType. Name					ebXML	
ElectronicDocumentType.Status.Name					ebXML	
Equipment.SealingParty.Name					ebXML	
EquipmentType.Name					ebXML	
FamilyName				O: Identifier Keywords		
FamilyName Synonym(s): Surname; LastName					ebXML	
Fee Type.Category.Name					ebXML	
Fee Type.Name					ebXML	
FIBranchName						xCBL
FileName						xCBL
FinancialInstitution.Location.City.Name					ebXML	
FinancialInstitution.Location.CitySubEntity.Name					ebXML	
FinancialInstitution.Location.Country.Name					ebXML	
FinancialInstitution.Location.CountrySubEntity.Name					ebXML	
FinancialInstitution.Location.LocationInStreet.Name					ebXML	
FinancialInstitution.Location.Street.Name					ebXML	
FinancialInstitutionName						xCBL
first_name			Application, Award, Organizational Profile, Professional Profile			
FirstName						xCBL
FirstName Synonym(s): GivenName; ChristianName					ebXML	
FreightForwarder.Information.Contact.Person.Name					ebXML	
FreightForwarder.Location.City.Name					ebXML	
FreightForwarder.Location.CitySubEntity.Name					ebXML	
FreightForwarder.Location.Country.Name					ebXML	
FreightForwarder.Location.CountrySubEntity.Name					ebXML	
FreightForwarder.Location.LocationInStreet.Name					ebXML	
FreightForwarder.Location.Street.Name					ebXML	
FreightForwarder.Name					ebXML	
FreightForwarder.Transportation.Contact.Person.Name					ebXML	
FullName	SF85, 85P, 86				ebXML	xCBL
GivenName				O: Identifier Keywords		
GlobalComponentNameCode		2A1, 2A5				
GlobalSpecificationNameCode		2A1, 2A5				
GoodsCustodian.Location.City.Name					ebXML	
GoodsCustodian.Location.Street.Name					ebXML	
GoodsCustodian.Name					ebXML	
GoodsCustodian.Transportation.Contact.Person.Name					ebXML	
Importer.Information.Contact.Person.Name					ebXML	
Importer.Location.City.Name					ebXML	
Importer.Location.Street.Name					ebXML	
Importer.Name					ebXML	
InformationResource.Contact.Location.City.Name					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
InformationResource.Contact.Location.Country.Name					ebXML	
InformationResource.Contact.Location.CountrySubEntity.Name					ebXML	
InformationResource.Contact.Location.Street.Name					ebXML	
InformationResource.Contact.Organisation.Name					ebXML	
InformationResource.Contact.Person.Name					ebXML	
InformationResource.CrossReference.Name					ebXML	
InformationResource.LocationVocabulary.Name					ebXML	
InformationResource.LocationVocabulary.Thesaurus.Name					ebXML	
InformationResource.Name					ebXML	
InformationResource.Originator.Name					ebXML	
InformationResource.Product.Distributor.Location.City.Name					ebXML	
InformationResource.Product.Distributor.Location.Country.Name					ebXML	
InformationResource.Product.Distributor.Location.CountrySubEntity.Name					ebXML	
InformationResource.Product.Distributor.Location.Street.Name					ebXML	
InformationResource.Product.Distributor.Organisation.Name					ebXML	
InformationResource.Product.Distributor.Person.Name					ebXML	
InformationResource.Product.Name					ebXML	
InformationResource.Publication.Location.Name					ebXML	
InformationResource.Subject.ControlledTerm.Name					ebXML	
InformationResource.Subject.ControlledVocabulary.Thesaurus.Name					ebXML	
InformationResource.Subject.UncontrolledTerm.Name					ebXML	
IntermediateConsignee.Location.City.Name					ebXML	
IntermediateConsignee.Location.Street.Name					ebXML	
IntermediateConsignee.Name					ebXML	
Invoice.Payee.BankAccount.AccountHolder.Name					ebXML	
Invoicee.Location.City.Name					ebXML	
Invoicee.Location.CitySubEntity.Name					ebXML	
Invoicee.Location.Country.Name					ebXML	
Invoicee.Location.CountrySubEntity.Name					ebXML	
Invoicee.Location.LocationInStreet.Name					ebXML	
Invoicee.Location.Street.Name					ebXML	
Invoicee.Name					ebXML	
Invoicee.Location.City.Name					ebXML	
Invoicee.Location.Street.Name					ebXML	
Invoicee.Name					ebXML	
KeyFigureName						xCBL
Label Synonym(s): Placard - Context: EDIFACT(Placard seems to be a mis-use of the term in EDIFACT and should be replaced by Label.); Nameplate; Dataplate.					ebXML	
Language.Name					ebXML	
last_name			Application, Award, Organizational Profile, Professional Profile			
LastName						xCBL
LegalName	SF424					
ListOfNameAddress						xCBL
Location.City.Name					ebXML	
Location.CitySubEntity.Name					ebXML	
Location.Country.Name					ebXML	
Location.CountrySubEntity.Name					ebXML	
Location.LocationInStreet.Name					ebXML	
Location.Name					ebXML	
Location.Person.Name					ebXML	
Location.RelatedLocation.Name					ebXML	
Location.Street.Name					ebXML	
LocationAttributeName						xCBL
LocationInStreet.Name					ebXML	
Manufacturer.Location.City.Name					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Manufacturer.Location.CitySubEntity.Name					ebXML	
Manufacturer.Location.Country.Name					ebXML	
Manufacturer.Location.CountrySubEntity.Name					ebXML	
Manufacturer.Location.LocationInStreet.Name					ebXML	
Manufacturer.Location.Street.Name					ebXML	
manufacturerName		2A1, 2A5				
MaterialsManagement.Contact.Person.Name					ebXML	
MeasuredObject.Name					ebXML	
Measurement.MeasuringDevice.Name					ebXML	
MeasurementAccuracy.Name					ebXML	
MeasurementProperty.Method.Name Synonym(s): Analyte.Method.Name Context: US/EPA					ebXML	
MeasurementProperty.Name					ebXML	
MeasurementUnit.Name					ebXML	
middle_name			Application, Award, Organizational Profile, Professional Profile			
MiddleName					ebXML	xCBL
MVBVariableName						xCBL
Name	OF306, 308, 612, SF33, 85, 85P, 86, 129, 171, 295					xCBL
Name - GB					ebXML	
Name1						xCBL
Name2						xCBL
Name3						xCBL
NameAddress						xCBL
NameAndAddressOfContractor	OF307, SF26, 30					
NameAndAddressOfOfferor	OF308, SF33					
NameAndTitle	SF30, 85, 85P, 86, 129, 254, 255					
NameAndTitleOfContractingOfficer	SF30					
NameAndTitleOfPersonAuthorizedToSignOffer	SF33					
NameAndTitleOSigner	SF26					
NameFormat					ebXML	
NameOfContractingOfficer	OF307, SF33					
NameOfContractor	SF26					
NameOfSigner	OF307, 308					
NamePrefix					ebXML	
NameSuffix					ebXML	
NameType					ebXML	
NameValuePair						xCBL
Non-discreteMeasurement.Name					ebXML	
NotificationParty.Information.Contact.Person.Name					ebXML	
NotificationParty.Location.City.Name					ebXML	
NotificationParty.Location.Street.Name					ebXML	
NotificationParty.Name					ebXML	
OrderedBy.Location.City.Name					ebXML	
OrderedBy.Location.Street.Name					ebXML	
OrderedBy.Name					ebXML	
OrderPlacement.Confirmation.Person.Name					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
OtherName				O: Identifier Keywords		
PackageType.Name					ebXML	
PackagingLevel.Name					ebXML	
PackagingTerm.Name					ebXML	
Party.BusinessFunction.Contact.Name					ebXML	
Party.Name					ebXML	
Party.Required.DocumentType.Name					ebXML	
PartyRole.Location.City.Name					ebXML	
PartyRole.Location.CitySubEntity.Name					ebXML	
PartyRole.Location.Country.Name					ebXML	
PartyRole.Location.CountrySubEntity.Name					ebXML	
PartyRole.Location.LocationInStreet.Name					ebXML	
PartyRole.Location.Street.Name					ebXML	
PartyRole.Name					ebXML	
Payee.Location.City.Name					ebXML	
Payee.Location.CitySubEntity.Name					ebXML	
Payee.Location.Country.Name					ebXML	
Payee.Location.CountrySubEntity.Name					ebXML	
Payee.Location.LocationInStreet.Name					ebXML	
Payee.Location.Street.Name					ebXML	
Payment.GuaranteeType.Name					ebXML	
PaymentChannel.Name					ebXML	
PaymentMethod.Name					ebXML	
PaymentTerm.TimeUnit.Name					ebXML	
PaymentTerm.Type.Name					ebXML	
Person.Family.Name Synonym(s): Person.Last.Name; Person.Surname					ebXML	
Person.FamilyName Synonym(s): Person.Surname; Person.LastName					ebXML	
Person.First.Name Synonym(s): Person.Christian.Name; Person.Given.Name					ebXML	
Person.FirstName Synonym(s): Person.GivenName; Person.ChristianName					ebXML	
Person.Full.Name					ebXML	
Person.Gender.Name Synonym(s): Person.Sex.Name					ebXML	
Person.Middle.Name					ebXML	
Person.MiddleName					ebXML	
Person.NameType.Code					ebXML	
Product.DeliverySchedule.Contact.Person.Name					ebXML	
Product.Name					ebXML	
Product.ProductType.Name					ebXML	
ProductAttributeName						xCBL
productName		2A1-3				
ProductName						xCBL
programName		2A4				
projectName		5C2				
properShippingName		3B6				
PurchaseOrder.Contact.Person.Name					ebXML	
Purchasing.Contact.Person.Name					ebXML	
receivedByName		3B3-4				
ReferenceType.Name					ebXML	
regionName		1A1-2, 3A1-7, 3B1-6, 3C3, 5C2, 5C4-5				
RegisteredName						xCBL
responsiblePartyName		3B6				
RuleName						xCBL
Schedule.Contact.Person.Name					ebXML	
SchemaName						xCBL
Status.Name					ebXML	
Street.Name					ebXML	
Supplier.AccountsDepartment.Contact.Person.Name					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Supplier.Contact.Person.Name					ebXML	
Supplier.DangerousGoods.Contact.Person.Name					ebXML	
Supplier.DeliverySchedule.Contact.Person.Name					ebXML	
Supplier.Location.City.Name					ebXML	
Supplier.Location.CitySubEntity.Name					ebXML	
Supplier.Location.Country.Name					ebXML	
Supplier.Location.LocationInStreet.Name					ebXML	
Supplier.Location.Street.Name					ebXML	
Supplier.Name Synonym(s): Vendor.Name; Seller.Name					ebXML	
TaxType.Category.Name					ebXML	
TaxType.Name					ebXML	
TaxType/DutyType/FeeType.Name					ebXML	
technicalName		3B6				
TerminalOperator.Information.Contact.Person.Name					ebXML	
TerminalOperator.Location.City.Name					ebXML	
TerminalOperator.Location.Street.Name					ebXML	
TerminalOperator.Name					ebXML	
Text.Language.Name					ebXML	
TradingPartnerDisplayName						xCBL
TransportMeans.Name					ebXML	
TransportMode.Name					ebXML	
UltimateCustomer.Location.City.Name					ebXML	
UltimateCustomer.Location.Street.Name					ebXML	
UltimateCustomer.Name					ebXML	
UltimateReceiver.Contact.Person.Name					ebXML	
UltimateReceiver.Information.Contact.Person.Name					ebXML	
UltimateReceiver.Location.City.Name					ebXML	
UltimateReceiver.Location.CitySubEntity.Name					ebXML	
UltimateReceiver.Location.Country.Name					ebXML	
UltimateReceiver.Location.CountrySubEntity.Name					ebXML	
UltimateReceiver.Location.LocationInStreet.Name					ebXML	
UltimateReceiver.Location.Street.Name					ebXML	
UltimateReceiver.Name					ebXML	
UserRoleName						xCBL
workInProgressStageName		3D8-9				
workInProgressStepName		3D8-9				

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Date						
accountOpenDate		1A1-2				
ActionType.Date					ebXML	
ActualArrivalDate						xCBL
ActualDepartureDate						xCBL
ActualShipToDateTime						xCBL
AdjustmentDate						xCBL
advertisingReimbursementDate		2A6				
Allowance.AccountingPeriod.PeriodRange.Date					ebXML	
Allowance.AccountingPeriod.Start.Date					ebXML	
Allowance.Contract.Date					ebXML	
Allowance.Contract.PeriodRange.Date					ebXML	
Allowance.Delivery.Date					ebXML	
Allowance.Delivery.PeriodRange.Date					ebXML	
Allowance.Effective.Date					ebXML	
Allowance.Event.Date					ebXML	
Allowance.Event.PeriodRange.Date					ebXML	
Allowance.Invoice.Date					ebXML	
Allowance.Invoice.PeriodRange.Date					ebXML	
Allowance.OrderReceipt.Date					ebXML	
Allowance.OrderReceipt.PeriodRange.Date					ebXML	
Allowance.Period.End.Date					ebXML	
Allowance.Period.Start.Date					ebXML	
Allowance.PurchaseOrder.Date					ebXML	
Allowance.PurchaseOrder.PeriodRange.Date					ebXML	
Allowance.Validity.PeriodRange.Date					ebXML	
AnniversaryDate				O: Time Names		
announceDate		2A6				
Approval.DateAndTime					ebXML	
ASNDates						xCBL
ASNIssueDate						xCBL
AsofDate				O: Time Names		
assemblyProductionDate		5C2				
assemblyPrototypeDate		5C2				
AuctionCreateIssueDate						xCBL
AuctionCreateResponseIssueDate						xCBL
AuctionItemDates						xCBL
AuctionResultDates						xCBL
AuctionResultIssueDate						xCBL
AuctionResultResponseIssueDate						xCBL
AuctionValidityDates						xCBL
AvailabilityCheckRequestIssueDate						xCBL
AvailabilityCheckResultIssueDate						xCBL
AvailabilityIssueDate						xCBL
AvailabilityResponseIssueDate						xCBL
AwardDate	SF33					
beginDate		1A1-2, 2A6, 3A1, 3B5-6, 3C5, 3D8-9, 4A4, 5C1-2, 5C4-5, 5D1-2				
beginDateTime		2A4, 3A1, 3B3, 3B5				
BlanketOrder.Issue.Date					ebXML	
Booking.Date Synonym(s): Reservation.Date					ebXML	
Bookkeeping.Date					ebXML	
BuyerIDReferenceDate						xCBL
Calculation.Actual.Date					ebXML	
Calculation.Due.Date					ebXML	
CancelByDate						xCBL
CardExpirationDate						xCBL
ChangeOrderIssueDate						xCBL

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Charge.AccountingPeriod.PeriodRange.Date					ebXML	
Charge.AccountingPeriod.Start.Date					ebXML	
Charge.Contract.Date					ebXML	
Charge.Contract.PeriodRange.Date					ebXML	
Charge.Delivery.Date					ebXML	
Charge.Delivery.PeriodRange.Date					ebXML	
Charge.Event.Date					ebXML	
Charge.Event.PeriodRange.Date					ebXML	
Charge.EventType.Period.End.Date					ebXML	
Charge.EventType.Period.Start.Date					ebXML	
Charge.Invoice.Date					ebXML	
Charge.Invoice.PeriodRange.Date					ebXML	
Charge.OrderReceipt.Date					ebXML	
Charge.OrderReceipt.PeriodRange.Date					ebXML	
Charge.Period.End.Date					ebXML	
Charge.Period.Start.Date					ebXML	
Charge.PurchaseOrder.Date					ebXML	
Charge.PurchaseOrder.PeriodRange.Date					ebXML	
CollectionDateOfCargo						xCBL
CommitmentDate				O: Time Names		
ConsignmentStatusReport.Issue.DateAndTime					ebXML	
Contract.Issue.Date					ebXML	
creationDate		3A1				
CreationDate				O: Time Names		
creditCardExpiryDate		3B6				
CreditNote.Issue.Date					ebXML	
Currency.CurrencyExchangeRate.Date					ebXML	
Customer.GoodsReceipt.Date					ebXML	
Customer.GoodsReceipt.DateAndTime					ebXML	
CustomerReference.Date					ebXML	
CustomsDeclaration.Actual.DateAndTime					ebXML	
CustomsDeclaration.Estimated.DateAndTime					ebXML	
Date	OF306, 307, 308, SF33, 85, 85P, 86, 129, 171, 295					xCBL
DateAndTimeFormat					ebXML	
DateAndTimeFormat.Code					ebXML	
DateCoded						xCBL
Dated	SF30					
DateFormat					ebXML	xCBL
DateFormat.Code					ebXML	
DateFormatCoded						xCBL
DateFormatCodedOther						xCBL
DateIssued	OF307, 308, SF33					
DateOfRateOfExchange						xCBL
DatePeriod		1A1-2, 2A4, 2A6-7, 3A1, 3B5-6, 3C5-6, 3D8-9, 4A4, 5C1-2, 5C4-5, 5D1-2				
DateQualifier						xCBL
DateQualifierCoded						xCBL
DateQualifierCodedOther						xCBL

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
DateSigned	OF306, 612, SF26, 30, 85, 85P, 86, 129, 171, 254, 255, 424					
DateStamp		1A1-2, 2A1, 2A3-4, 2A6-7, 3A1, 3A4-7, 3B1-6, 3C3, 3C5-6, 3D8-9, 4A4, 5C1-2, 5C4-5, 5D1-2		O: Identifier Keywords		
DateTimePeriod		3A1, 3B3, 3B5				
DateTimeStamp		0A1, 1A1-2, 1B1, 2A1-7, 3A1-7, 3B1-6, 3C2-6, 3D8-9, 4A4, 4B2, 4C1, 5C1-5, 5D1-2				
DecisionDate						xCBL
Delivery.Actual.Date					ebXML	
Delivery.Actual.DateAndTime					ebXML	
Delivery.Confirmed.Date					ebXML	
Delivery.Confirmed.DateAndTime					ebXML	
Delivery.CumulativeQuantity.Start.Date					ebXML	
Delivery.CustomerAdvised.Earliest.Date					ebXML	
Delivery.CustomerAdvised.Earliest.DateAndTime					ebXML	
Delivery.CustomerRelease.Date					ebXML	
Delivery.CustomerRelease.DateAndTime					ebXML	
Delivery.Date					ebXML	
Delivery.Earliest.Date					ebXML	
Delivery.Earliest.DateAndTime					ebXML	
Delivery.Estimated.Date					ebXML	
Delivery.Estimated.DateAndTime					ebXML	
Delivery.Expected.Date					ebXML	
Delivery.Expected.DateAndTime					ebXML	
Delivery.Latest.Date					ebXML	
Delivery.Latest.DateAndTime					ebXML	
Delivery.Period.End.Date Synonym(s): Delivery.End.Date Context: Commerce					ebXML	
Delivery.Period.Start.Date Synonym(s): Delivery.Start.Date					ebXML	
Delivery.Promised.Date Synonym(s): Delivery.Scheduled.Date					ebXML	
Delivery.Promised.DateAndTime Synonym(s): Delivery.Scheduled.DateAndTime					ebXML	
Delivery.Promised.Earliest.Date					ebXML	
Delivery.Promised.Earliest.DateAndTime					ebXML	
Delivery.Promised.Latest.Date					ebXML	
Delivery.Promised.Latest.DateAndTime					ebXML	
Delivery.Requested.Date					ebXML	
Delivery.Requested.DateAndTime					ebXML	
Delivery.Scheduled.Date					ebXML	
Delivery.Scheduled.DateAndTime					ebXML	
deliveryDate		3A1, 3B1				
DeliveryDate						xCBL
DeliveryDateEarliest						xCBL
DeliveryDateLatest						xCBL
deliveryDateTime		3B5				
DeliveryLocation.Delivery.Earliest.Date					ebXML	
DeliveryLocation.Delivery.Latest.Date					ebXML	
DeliveryLocation.Delivery.Promised.Date					ebXML	
DeliveryLocation.Delivery.Requested.Date					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
DeliveryLocation.SplitDelivery.GoodsNonDelivery.PurchaseOrder.Cancellation.Date					ebXML	
DeliveryNote.Delivery.Estimated.Date Synonym(s): DispatchNote.GoodsArrival.Estimated.Date					ebXML	
DeliveryNote.Delivery.Estimated.DateAndTime Synonym(s): DispatchNote.GoodsArrival.Estimated.DateAndTime					ebXML	
DeliveryNote.Issue.Date					ebXML	
DeliveryNote:GoodsDispatch.Date Synonym(s): DispatchNote:GoodsDispatch.Date					ebXML	
DeliveryNote:GoodsDispatch.DateAndTime Synonym(s): DispatchNote:Reference.GoodsDispatch.DateAndTime					ebXML	
DeliveryNotice.Issue.Date					ebXML	
DeliveryNotice.Issue.DateAndTime					ebXML	
DeliveryQuantity.Delivery.Earliest.Date					ebXML	
DeliveryQuantity.Delivery.Latest.Date					ebXML	
DeliveryQuantity.Delivery.Requested.Date					ebXML	
DeliveryQuantity.Discharge.Date					ebXML	
DeliveryQuantity.Dispatch.Earliest.Date					ebXML	
DeliveryQuantity.Dispatch.Latest.Date					ebXML	
DeliveryQuantity.Dispatch.Required.Date					ebXML	
DeliverySchedule.Delivery.Date					ebXML	
DeliverySchedule.Delivery.DateAndTime					ebXML	
DeliverySchedule.Delivery.SplitQuantity.Date					ebXML	
DeliverySchedule.Delivery.SplitQuantity.DateAndTime					ebXML	
DeliverySchedule.Issue.Date					ebXML	
DeliverySchedule.Validity.PeriodRange.Date					ebXML	
DeliverySchedule:Reference.BlanketOrder.Date					ebXML	
DeliverySchedule:Reference.Contract.Date					ebXML	
DeliverySchedule:Reference.DeliverySchedule.Previous.Date					ebXML	
designEngagementDate		5C2, 5C4-5				
discontinuationDate		2A6				
DiscountDateTimeRefCoded						xCBL
DiscountDateTimeRefCodedOther						xCBL
DiscountDueDate						xCBL
DispatchAdvice:Delivery.Estimated.Date Synonym(s): DispatchAdvice:GoodsArrival.Estimated.Date					ebXML	
DispatchAdvice:Delivery.Estimated.DateAndTime Synonym(s): DispatchAdvice:GoodsArrival.Estimated.DateAndTime					ebXML	
DispatchAdvice:GoodsDispatch.DateAndTime					ebXML	
DispatchAdvice:Reference.GoodsDispatch.Date					ebXML	
DispatchNote.Issue.Date					ebXML	
distributorAvailabilityDate		2A6				
DocumentaryCredit.Expiry.Date					ebXML	
DocumentaryCredit.Issue.Date					ebXML	
DocumentType.Validity.Period.Date					ebXML	
DocumentType.Validity.Period.Start.Date					ebXML	
DocumentType.Validity.Start.Date					ebXML	
DocumentType:Reference.Document.Date					ebXML	
DueDate				O: Time Names		
DueDates				O: Entry Topic Names		
Duty.Calculation.Date					ebXML	
Duty.DutyType.Calculation.Date					ebXML	
Duty.DutyType.Payment.Date					ebXML	
Duty.DutyType.Payment.Due.Date					ebXML	
Duty.Payment.Date					ebXML	
Duty.Payment.Due.Date					ebXML	
EarliestDeliveryDate						xCBL
EffectiveDate	OF307, SF26, 30					

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
effectiveDate		2A1, 2A3, 2A6, 3A1, 3C6				
effectiveDatePeriod		3B5-6				
effectiveRegistrationDate		5C1-2, 5C4-5				
ElectronicDocumentType.Issue.Date					ebXML	
ElectronicDocumentType.Issue.DateAndTime					ebXML	
end_date (555: endDate)			Application			
EndDate				O: Time Names		xCBL
endDate (553: end_date)		1A1-2, 2A4, 2A7, 3A1, 3B5-6, 3C5, 3D8-9, 4A4, 5C1-2, 5C4-5, 5D1-2				
endDateTime		3A1, 3B3, 3B5				
endUserAvailabilityDate		2A6				
Enquiry.Date					ebXML	
EstimatedArrivalDate						xCBL
estimatedAvailabilityDate		3A1				
EstimatedDepartureDate						xCBL
eventDate		3D8-9				
EventType.Date					ebXML	
EventType.DateAndTime					ebXML	
ExpectedShipToDateTime						xCBL
ExpirationDate				O: Time Names		
expiryDate (1238: offer_expiration_date)		3A4, 3B2, 3B6				
Fee.Calculation.Date					ebXML	
Fee.FeeType.Calculation.Date					ebXML	
Fee.FeeType.Payment.Date					ebXML	
Fee.FeeType.Payment.Due.Date					ebXML	
Fee.Payment.Date					ebXML	
Fee.Payment.Due.Date					ebXML	
forecastGenerationDate		4A4				
Goods.SupplyLocation.PickUp.Date					ebXML	
GoodsDischarge.Date					ebXML	
GoodsDischarge.DateAndTime					ebXML	
GoodsDispatch.Date Synonym(s): Dispatch.Date; Despatch.Date Context: alternative spelling					ebXML	
GoodsDispatch.DateAndTime Synonym(s): Dispatch.DateAndTime; Despatch.DateAndTime Context: alternative spelling					ebXML	
GoodsDispatch.Earliest.Date					ebXML	
GoodsDispatch.Earliest.DateAndTime					ebXML	
GoodsDispatch.Latest.Date					ebXML	
GoodsDispatch.Latest.DateAndTime					ebXML	
GoodsDispatch.Required.Date					ebXML	
GoodsDispatch.Required.DateAndTime					ebXML	
GoodsNonDelivery.PurchaseOrder.Renegotiation.Date					ebXML	
GoodsReceipt.Date Synonym(s): GoodsArrival.Date					ebXML	
GoodsReceipt.DateAndTime					ebXML	
guaranteeAvailabilityDate		2A6				
HourAndDateSpecifiedForReceiptOfOffersIsExtended	SF30					
HourAndDateSpecifiedForReceiptOfOffersIsNotExtended	SF30					
IDAssignedDate						xCBL
ImportLicence.Expiry.Date					ebXML	
ImportLicence.Issue.Date					ebXML	
InformationResource.LocatorRecord.LastModified.Date					ebXML	
InformationResource.LocatorRecord.ScheduledReview.Date					ebXML	
InformationResource.Period.End.Date					ebXML	
InformationResource.Period.Start.Date					ebXML	
InformationResource.PeriodRange.Date					ebXML	
InformationResource.Product.Period.End.Date					ebXML	
InformationResource.Product.Period.Start.Date					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
InformationResource.Product.PeriodRange.Date					ebXML	
InformationResource.Publication.Date					ebXML	
inventoryReportDateTime		4C1				
Invoice.Currency.CurrencyExchangeRate.Date					ebXML	
Invoice.Issue.Date					ebXML	
Invoice.Issue.DateAndTime					ebXML	
Invoice:Reference.Invoice.Previous.Date					ebXML	
Invoice:Reference.PurchaseOrder.Date					ebXML	
invoiceDate		3B6				
InvoiceDates						xCBL
InvoiceDueDate						xCBL
InvoiceIssueDate						xCBL
lastShipDate		5C1				
LatestDeliveryDate						xCBL
LegalReportingImportDate						xCBL
LegalReportingPaymentDate						xCBL
LineItemDates						xCBL
ListOfDateCoded						xCBL
ListOfOtherDeliveryDate						xCBL
ListOfOtherInvoiceDates						xCBL
ListOfPaymentDates						xCBL
Location.SplitDelivery.Date					ebXML	
manufactureDate		2A7, 3B2, 3B6				
manufacturingLotDate		3D8-9				
MaturityDate				O: Time Names		
NetDateTimeRefCoded						xCBL
NetDateTimeRefCodedOther						xCBL
NetDueDate						xCBL
OccupancyDate				O: Time Names		
OccurrenceDate				O: Time Names		
offer_expiration_date (605: expiration_date_current_period) (606: expiryDate)			Application			
OfferDate	SF33					
OffersMustAcknowledgeReceiptOfAmendmentPriorToHourAndDateSpecifiedInTheSolicitationOrAsAmmendedBy	SF30					
OrderChange.Date					ebXML	
OrderChange.Issue.Date					ebXML	
OrderDate						xCBL
OrderDates						xCBL
orderingAvailabilityDate		2A6-7				
OrderIssueDate						xCBL
OrderRequestDates						xCBL
OrderRequestIssueDate						xCBL
OrderResponse.Issue.Date					ebXML	
OrderResponse:Reference.PurchaseOrder.Date					ebXML	
OrderResponseIssueDate						xCBL
OrderStatusDate						xCBL
OrderStatusIssueDate						xCBL
originalScheduledShipDate		3D8-9				
Party.TaxExempt.Licence.Issue.Date					ebXML	
PartyRole.GoodsReceipt.Date					ebXML	
PartyRole.GoodsReceipt.DateAndTime					ebXML	
PayBeforeDate						xCBL
Payment.Actual.Date					ebXML	
Payment.Currency.CurrencyExchangeRate.Date					ebXML	
Payment.Deferred.Date					ebXML	
Payment.Due.Date					ebXML	
PaymentDate						xCBL
PaymentDates						xCBL
paymentDueDate		3C5				

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
PaymentDueDate						xCBL
paymentReceivedDate		3C5				
PaymentRequestAcknIssueDate						xCBL
PaymentRequestIssueDate						xCBL
PaymentSettlementDate						xCBL
PaymentTerm.Discount.Payment.Due.Date					ebXML	
PaymentTerm.InvoiceIssueDate.Code					ebXML	
PaymentTerm.Reference.Date					ebXML	
PaymentTerm.ReferenceDate.TimeUnit.Code					ebXML	
PaymentTerm.ReferenceDateType.Code					ebXML	
PaymentTerm.ReferenceDateType.TimeUnit.Quantity					ebXML	
PickUp.Date Synonym(s): Collection.Date					ebXML	
PickUp.DateAndTime					ebXML	
Pickup.Earliest.Date					ebXML	
Pickup.Earliest.DateAndTime					ebXML	
Pickup.Latest.Date					ebXML	
Pickup.Latest.DateAndTime					ebXML	
Price.Basis.Date					ebXML	
Price.Effective.Date					ebXML	
Price.PeriodRange.Date					ebXML	
PriceChange.Start.Date Synonym(s): PriceAdjustment.Start.Date					ebXML	
PriceCheckRequestIssueDate						xCBL
PriceCheckResultIssueDate						xCBL
PriceList.Issue.Date					ebXML	
PriceList.Validity.Period.Date					ebXML	
PriceList.Validity.Period.Start.Date					ebXML	
Product.Assigned.ProductType.Date					ebXML	
Product.Availability.Date					ebXML	
Product.Availability.DateAndTime					ebXML	
Product.Delivery.Release.Date					ebXML	
Product.EngineeringRevision.Date					ebXML	
Product.Production.Date					ebXML	
Product.Production.DateAndTime					ebXML	
Product.Production.End.Date					ebXML	
Product.Reference.DeliverySchedule.Previous.Date					ebXML	
Product.Reference.DeliverySchedule.Previous.DateAndTime					ebXML	
Product.Sales.Release.Date					ebXML	
ProductDataMessage.Issue.Date					ebXML	
ProductEnquiry.Issue.Date Synonym(s): Product.Inquiry.Identifier Context: US spelling					ebXML	
PromiseDate						xCBL
proprietaryDocumentDate		3C6				
PurchaseOrder.Currency.CurrencyExchangeRate.Date					ebXML	
PurchaseOrder.Date					ebXML	
PurchaseOrder.GoodsNonDelivery.Cancellation.Date					ebXML	
PurchaseOrder.Issue.Date					ebXML	
PurchaseOrder.Issue.DateAndTime					ebXML	
PurchaseOrder.Reference.Date					ebXML	
PurchaseOrder.SupplierReference.Date					ebXML	
PurchaseOrder:LineItem.Reference.PurchaseOrder.Issue.Date					ebXML	
PurchaseOrder:Reference.ImportLicence.Issue.Date					ebXML	
PurchaseOrder:Reference.PurchaseOrder.Issue.Date					ebXML	
PurchaseOrder:Reference.PurchaseOrder.Issue.DateAndTime					ebXML	
purchaseOrderDate		3A4-6				
PurchaseOrderDate						xCBL
Quote.Issue.Date					ebXML	
Quote.Validity.End.Date					ebXML	
QuoteDate						xCBL
QuoteIssueDate						xCBL
RadioactiveMaterial.HandlingPermit.Authorisation.Date					ebXML	
RadioactiveMaterial.HandlingPermit.Expiry.Date					ebXML	
RawMaterial.Price.Effective.Date					ebXML	
RawMaterial.Price.Fixed.Date					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
ReadyForDispatchAdvice.Issue.Date					ebXML	
ReceiptDateTime						xCBL
ReceivingReport.Issue.Date					ebXML	
ReceivingReport.Issue.DateAndTime					ebXML	
RecurrenceDate				O: Time Names		
RefDate						xCBL
Reference.Bordereau.Date					ebXML	
Reference.CertificateOfOrigin.Date					ebXML	
Reference.Date					ebXML	
Reference.DeliveryNote.Date					ebXML	
Reference.DispatchAdvice.Date					ebXML	
Reference.PurchaseOrder.Date					ebXML	
Reference.Shipment.Date					ebXML	
ReferenceDate					ebXML	
ReferenceDateType					ebXML	
ReferenceDocument.Issue.Date					ebXML	
ReferenceDocument.Issue.DateAndTime					ebXML	
ReferenceDocument.Validity.End.Date Synonym(s): ReferenceDocument.Expiry.Date					ebXML	
ReferenceDocument.Validity.End.DateAndTime Synonym(s): ReferenceDocument.Expiry.DateAndTime					ebXML	
ReferenceDocument.Validity.Start.Date					ebXML	
ReferenceDocument.Validity.Start.DateAndTime					ebXML	
registrationStatusDate		5C2, 5C4-5				
registrationSubmissionDate		5C2, 5C4-5				
RemittanceAdviceIssueDate						xCBL
RemittanceAdvice.Issue.Date					ebXML	
RenewalDate				O: Time Names		
renewalRequiredDate		5C2, 5C4-5				
RequestedDeliverByDate						xCBL
requestedDeliveryDate		3A1				
requestedDeliveryDateTime						
RequestedPaymentDate						xCBL
requestedQuoteResponseDate		3A1				
RequestedShipByDate						xCBL
requestedShipDate		3A4-6				
RequestedShipDate				O: Time Names		
RequestForQuote.Date					ebXML	
RequestForQuote.Issue.Date					ebXML	
RequestForQuote.Quote.Receipt.Latest.Date					ebXML	
requestingDocumentDateTime		1A2, 1B1, 2A4-5, 3A1-5, 3C2, 3C4, 5C2-3, 5C5, 5D1				
RequestQuoteDate						xCBL
RequestQuoteIssueDate						xCBL
RequestQuoteValidityDate						xCBL
resellerAvailabilityDate		2A6				
ScheduleDates						xCBL
scheduledDeliveryDate						
ScheduleDeliveryDateAfter						xCBL
ScheduleDeliveryDateBefore						xCBL
scheduledShipDate		3A4-7, 3D8-9				
ScheduledShipDate				O: Time Names		
ScheduleIssueDate						xCBL
ScheduleIssuedDate						xCBL
schedulePaymentsDueDate		3C5				
ScheduleResponseIssueDate						xCBL
SettlementDate				O: Time Names		

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
shipDate		3A5-6, 3B1, 3C3, 3D8-9				
ShipDate				O: Time Names		xCBL
ShipmentReceiptReportDateTime		4B2				
shipmentStatusDateTime		3B3-4				
ShippedDate						xCBL
ShippedToDate						xCBL
ShippingInvoice.Date					ebXML	
ShippingInvoice.Issue.DateAndTime					ebXML	
ShippingNote.Issue.DateAndTime					ebXML	
ShippingOrder.Issue.Date					ebXML	
shippingReleaseDate		2A6				
signature_date DateSigned+B818			Application			
SplitQuantity.Arrival.Date					ebXML	
SplitQuantity.Arrival.DateAndTime					ebXML	
SplitQuantity.Delivery.Confirmed.Date					ebXML	
SplitQuantity.Delivery.Confirmed.DateAndTime					ebXML	
SplitQuantity.Delivery.Earliest.Date					ebXML	
SplitQuantity.Delivery.Earliest.DateAndTime					ebXML	
SplitQuantity.Delivery.Expected.Date					ebXML	
SplitQuantity.Delivery.Expected.DateAndTime					ebXML	
SplitQuantity.Delivery.Expected.DateAndTime					ebXML	
SplitQuantity.Delivery.Latest.Date					ebXML	
SplitQuantity.Delivery.Latest.DateAndTime					ebXML	
SplitQuantity.Delivery.Requested.Date					ebXML	
SplitQuantity.Delivery.Requested.DateAndTime					ebXML	
SplitQuantity.Discharge.Date					ebXML	
SplitQuantity.Discharge.DateAndTime					ebXML	
SplitQuantity.Dispatch.Earliest.Date					ebXML	
SplitQuantity.Dispatch.Earliest.DateAndTime					ebXML	
SplitQuantity.Dispatch.Latest.Date					ebXML	
SplitQuantity.Dispatch.Latest.DateAndTime					ebXML	
SplitQuantity.Dispatch.Requested.Date					ebXML	
SplitQuantity.Dispatch.Requested.DateAndTime					ebXML	
StartDate				O: Time Names		xCBL
Status.Date					ebXML	
Status.DateAndTime					ebXML	
submission_date (433: DateSubmitted)			Application			
Supplier.ExportDeclaration.Date					ebXML	
SupplierIDReferenceDate						xCBL
Tax.Calculation.Date					ebXML	
Tax.Calculation.Due.Date					ebXML	
Tax.Payment.Actual.Date					ebXML	
Tax.Payment.Due.Date					ebXML	
Tax.TaxType.Calculation.Date					ebXML	
Tax.TaxType.Calculation.Due.Date					ebXML	
Tax.TaxType.Payment.Actual.Date					ebXML	
Tax.TaxType.Payment.Due.Date					ebXML	
Tax.VAT.Calculation.Date					ebXML	
Tax.VAT.Calculation.Due.Date					ebXML	
Tax.VAT.Payment.Date					ebXML	
Tax.VAT.Payment.Due.Date					ebXML	
TaxPointDate						xCBL
thisDocumentGenerationDateTime		0A1, 1A1-2, 1B1, 2A1-7, 3A1-7, 3B1-6, 3C2-6, 3D8-9, 4A4, 4B2, 4C1, 5C1-5, 5D1-2				
TimeSeriesIssueDate						xCBL
TimeSeriesResponseIssueDate						xCBL

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
TransportMeans.Arrival.Actual.Date					ebXML	
TransportMeans.Arrival.Actual.DateAndTime					ebXML	
TransportMeans.Arrival.Estimated.Date					ebXML	
TransportMeans.Arrival.Estimated.DateAndTime					ebXML	
UltimateReceiver.GoodsReceipt.Date					ebXML	
UltimateReceiver.GoodsReceipt.DateAndTime					ebXML	
ValidityDates						xCBL
yearToDateInterestCharges		3C5				

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Time						
ActualShipToDateTime						xCBL
Approval.DateAndTime					ebXML	
beginDateTime		2A4, 3A1, 3B3, 3B5				
ChangedTimeSeriesHeader						xCBL
ConsignmentStatusReport.Issue.DateAndTime					ebXML	
Customer.GoodsReceipt.DateAndTime					ebXML	
CustomsDeclaration.Actual.DateAndTime					ebXML	
CustomsDeclaration.Estimated.DateAndTime					ebXML	
DateAndTimeFormat					ebXML	
DateAndTimeFormat.Code					ebXML	
DateTimePeriod		3A1, 3B3, 3B5				
DateTimeStamp		0A1, 1A1-2, 1B1, 2A1-7, 3A1-7, 3B1-6, 3C2-6, 3D8-9, 4A4, 4B2, 4C1, 5C1-5, 5D1-2				
Delivery.Actual.DateAndTime					ebXML	
Delivery.Confirmed.DateAndTime					ebXML	
Delivery.CustomerAdvised.Earliest.DateAndTime					ebXML	
Delivery.CustomerRelease.DateAndTime					ebXML	
Delivery.Earliest.DateAndTime					ebXML	
Delivery.Estimated.DateAndTime					ebXML	
Delivery.Expected.DateAndTime					ebXML	
Delivery.Latest.DateAndTime					ebXML	
Delivery.Promised.DateAndTime Synonym(s):					ebXML	
Delivery.Scheduled.DateAndTime					ebXML	
Delivery.Promised.Earliest.DateAndTime					ebXML	
Delivery.Promised.Latest.DateAndTime					ebXML	
Delivery.Requested.DateAndTime					ebXML	
Delivery.Scheduled.DateAndTime					ebXML	
deliveryDateTime		3B5				
DeliveryNote.Delivery.Estimated.DateAndTime Synonym(s):					ebXML	
DispatchNote.GoodsArrival.Estimated.DateAndTime						
DeliveryNote:GoodsDispatch.DateAndTime Synonym(s):					ebXML	
DispatchNote:Reference.GoodsDispatch.DateAndTime						
DeliveryNotice.Issue.DateAndTime					ebXML	
DeliverySchedule.Delivery.DateAndTime					ebXML	
DeliverySchedule.Delivery.SplitQuantity.DateAndTime					ebXML	
DiscountDateTimeRefCoded						xCBL
DiscountDateTimeRefCodedOther						xCBL
DispatchAdvice:Delivery.Estimated.DateAndTime Synonym(s):					ebXML	
DispatchAdvice:GoodsArrival.Estimated.DateAndTime						
DispatchAdvice:GoodsDispatch.DateAndTime					ebXML	
DownTime				O: Time Names		
ElectronicDocumentType.Issue.DateAndTime					ebXML	
endDateTime		3A1, 3B3, 3B5				
EventType.DateAndTime					ebXML	
ExpectedShipToDateTime						xCBL
FirstTimeHomebuyer				O: Actor Role Names		
forecastGenerationDateTime		4A4				
GoodsDischarge.DateAndTime					ebXML	
GoodsDispatch.DateAndTime Synonym(s):						
Dispatch.DateAndTime; Despatch.DateAndTime Context: alternative spelling					ebXML	
GoodsDispatch.Earliest.DateAndTime					ebXML	
GoodsDispatch.Latest.DateAndTime					ebXML	
GoodsDispatch.Required.DateAndTime					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
GoodsReceipt.DateAndTime					ebXML	
HandcarriedOfferstoXXUntilXXLocalTimeXX	SF33					
inventoryReportDateTime		4C1				
Invoice.Issue.DateAndTime					ebXML	
JustInTimeOrder					ebXML	
JustInTimeOrder.Identifier					ebXML	
JustInTimeOrder.Requested.AcknowledgementType.Code					ebXML	
JustInTimeOrder.Status.Code					ebXML	
LeadTime						xCBL
LeadTimeUOM						xCBL
ListOfChangedTimeSeriesKeyFigureData						xCBL
ListOfTimeSeriesKeyFigureData						xCBL
ListOfTimezone						xCBL
NetDateTimeRefCoded						xCBL
NetDateTimeRefCodedOther						xCBL
PartyRole.GoodsReceipt.DateAndTime					ebXML	
PaymentTerm.ReferenceDate.TimeUnit.Code					ebXML	
PaymentTerm.ReferenceDateType.TimeUnit.Quantity					ebXML	
PaymentTerm.TimeUnit.Name					ebXML	
PaymentTerm.TimeUnit.Quantity Synonym(s):					ebXML	
PaymentTerm.TimeUnit.Number					ebXML	
PersonTimezone						xCBL
PickUp.DateAndTime					ebXML	
Pickup.Earliest.DateAndTime					ebXML	
Pickup.Latest.DateAndTime					ebXML	
Product.Availability.DateAndTime					ebXML	
Product.Production.DateAndTime					ebXML	
Product.Reference.DeliverySchedule.Previous.DateAndTime					ebXML	
PurchaseOrder.Issue.DateAndTime					ebXML	
PurchaseOrder:Reference.PurchaseOrder.Issue.DateAndTime					ebXML	
ReceiptDateTime						xCBL
ReceivingReport.Issue.DateAndTime					ebXML	
ReferenceDocument.Issue.DateAndTime					ebXML	
ReferenceDocument.Validity.End.DateAndTime Synonym(s):					ebXML	
ReferenceDocument.Expiry.DateAndTime					ebXML	
ReferenceDocument.Validity.Start.DateAndTime					ebXML	
requestingDocumentDateTime		1A2, 1B1, 2A4-5, 3A1-5, 3C2, 3C4, 5C2-3, 5C5, 5D1				
Second(Time)					ebXML	
sentMessageDateTime						
ShipmentReceiptReportDateTime		4B2				
shipmentStatusDateTime		3B3-4				
ShippingInvoice.Issue.DateAndTime					ebXML	
ShippingNote.Issue.DateAndTime					ebXML	
SplitQuantity.Arrival.DateAndTime					ebXML	
SplitQuantity.Delivery.Confirmed.DateAndTime					ebXML	
SplitQuantity.Delivery.Earliest.DateAndTime					ebXML	
SplitQuantity.Delivery.Expected.DateAndTime					ebXML	
SplitQuantity.Delivery.Latest.DateAndTime					ebXML	
SplitQuantity.Delivery.Requested.DateAndTime					ebXML	
SplitQuantity.Delivery.WaitingTime.TimeUnit.Quantity					ebXML	
SplitQuantity.Discharge.DateAndTime					ebXML	
SplitQuantity.Dispatch.Earliest.DateAndTime					ebXML	
SplitQuantity.Dispatch.Latest.DateAndTime					ebXML	
SplitQuantity.Dispatch.Requested.DateAndTime					ebXML	
Status.DateAndTime					ebXML	
thisDocumentGenerationDateTime		0A1, 1A1-2, 1B1, 2A1-7, 3A1-7, 3B1-6, 3C2-6, 3D8-9, 4A4, 4B2, 4C1, 5C1-5, 5D1-2				

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
TimeDuration					ebXML	
TimeDuration.Quantity					ebXML	
TimeFormat					ebXML	xCBL
TimeFormat.Code					ebXML	
TimeSeries						xCBL
TimeSeriesBucket						xCBL
TimeSeriesData						xCBL
TimeSeriesDataNote						xCBL
TimeSeriesDetail						xCBL
TimeSeriesDetailResponseCoded						xCBL
TimeSeriesDetailResponseCodedOther						xCBL
TimeSeriesHeader						xCBL
TimeSeriesHeaderResponseCoded						xCBL
TimeSeriesHeaderResponseCodedOther						xCBL
TimeSeriesID						xCBL
TimeSeriesIssueDate						xCBL
TimeSeriesKeyFigureData						xCBL
TimeSeriesKeyFigurePurposeCoded						xCBL
TimeSeriesKeyFigurePurposeCodedOther						xCBL
TimeSeriesKeyFigureResponseCoded						xCBL
TimeSeriesKeyFigureResponseCodedOther						xCBL
TimeSeriesParty						xCBL
TimeSeriesPlanningData						xCBL
TimeSeriesPlanningStep						xCBL
TimeSeriesPurposeCoded						xCBL
TimeSeriesPurposeCodedOther						xCBL
TimeSeriesReference						xCBL
TimeSeriesRequest						xCBL
TimeSeriesRequestDetail						xCBL
TimeSeriesRequestHeader						xCBL
TimeSeriesRequestSummary						xCBL
TimeSeriesResponse						xCBL
TimeSeriesResponseDetail						xCBL
TimeSeriesResponseHeader						xCBL
TimeSeriesResponseID						xCBL
TimeSeriesResponseIssueDate						xCBL
TimeSeriesResponseParty						xCBL
TimeSeriesResponseSummary						xCBL
TimeSeriesSelection						xCBL
TimeSeriesSummary						xCBL
TimeSeriesSystemType						xCBL
TimeSeriesTimePeriod						xCBL
TimeSeriesValue						xCBL
TimeStamp				O: Identifier Keywords		
TimeUnit					ebXML	
TimeUnit.Code					ebXML	
TimeZone					ebXML	xCBL
TimezoneCoded						xCBL
TimezoneCodedOther						xCBL
TotalTimeSeriesData						xCBL
TradingPartnerTimezone						xCBL
TransitTime						xCBL
TransitTimeQualifierCoded						xCBL
TransitTimeQualifierCodedOther						xCBL
TransportMeans.Arrival.Actual.DateAndTime					ebXML	
TransportMeans.Arrival.Estimated.DateAndTime					ebXML	
UltimateReceiver.GoodsReceipt.DateAndTime					ebXML	
WaitingTime					ebXML	
WaitingTime.TimeUnit.Quantity					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Address						
Address					ebXML	
AddressOfferTo	OF308, SF33					
AddressType						xCBL
AddressTypeCoded						xCBL
AddressTypeCodedOther						xCBL
billToAddressIdentifier		1A1-2, 2A6				
CheckIfRemittanceAddressIsDifferentFromAddressOfferTo	SF33					
CommunicationAddress Narrower term(s): ElectronicAddress and PostalAddress					ebXML	
DeliveryLocation.Address					ebXML	
ElectronicAddress					ebXML	
ElectronicAddressType Broader term: CommunicationChannelType					ebXML	
ElectronicAddressType.Identifier Broader term: CommunicationChannelType.Identifier					ebXML	
EmailAddress		0A1, 1A1-2, 1B1, 2A1-7, 3A1-7, 3B1-6, 3C2-6, 3D8-9, 4A4, 4B2, 4C1, 5C1-5, 5D1-2				
E-mailAddress	OF308					
ExternalAddressID						xCBL
InformationResource.CrossReference.Address					ebXML	
InformationResource.CrossReference.Address.DataType.Code					ebXML	
InformationResource.CrossReference.Address.Identifier					ebXML	
InformationResource.Product.Reference.Address					ebXML	
InformationResource.Product.Reference.Address.DataType.Code					ebXML	
InformationResource.Product.Reference.Address.Identifier					ebXML	
ListOfNameAddress						xCBL
ListOfOrganizationAddress						xCBL
ListOfPersonAddress						xCBL
NameAddress						xCBL
NameAndAddressOfContractor	OF307, SF26, 30					
NameAndAddressOfOfferor	OF308, SF33					
OrganizationAddress						xCBL
OrganizationAddresses						xCBL
OrganizationAddressID						xCBL
PersonAddress						xCBL
PhysicalAddress		1A1-2, 3A1-7, 3B1-6, 3C3, 3D8- 9, 4A4, 4B2, 4C1, 5C2, 5C4- 5, 5D1-2		O: Identifier Keywords		
PostalAddress					ebXML	
PrimaryOrganizationAddress						xCBL
SealedOffersInOriginalAndXXCopiesToAddressOfferTo	SF33					
shipToAddressIdentifier		1A1-2				
StructuredAddress					ebXML	
subscriptionAddress		1B1				
SystemAddress						xCBL
UnstructuredAddress					ebXML	
warehouseAddress		3A2				

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Organization						
Action.AffectedOrganization.Identifier					ebXML	
AffectedOrganization					ebXML	
Approval.PartyRole.Name Synonym(s): Approval.Person/OrganizationRole.Name					ebXML	
ListOfOrganizationAddress						xCBL
ListOfTradingPartnerOrganization						xCBL
ListOfTradingPartnerOrganizationDeletion						xCBL
OrganizationAddress						xCBL
OrganizationAddresses						xCBL
OrganizationAddressID						xCBL
OrganizationCurrency						xCBL
OrganizationID				O: Identifier Keywords		
OrganizationLanguage						xCBL
PrimaryOrganizationAddress						xCBL
TradingPartnerOrganization						xCBL
TradingPartnerOrganizationDelete						xCBL
TradingPartnerOrganizationHeader						xCBL
TradingPartnerOrganizationInformation						xCBL
TradingPartnerOrganizationPurpose						xCBL
TradingPartnerOrganizationPurposeCoded						xCBL
TradingPartnerOrganizationPurposeCodedOther						xCBL
TradingPartnerOrganizationReference						xCBL

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Agency						
Agency					ebXML	xCBL
AgencyAgreement				O: Actor Document Names		
AgencyCoded						xCBL
AgencyCodedOther						xCBL
AgencyDescription						xCBL
AgencyDisclosure				O: Disclosure Names		
AgencyProgramme					ebXML	
Codeset.ResponsibleParty.Code Synonym(s); Codelist.ResponsibleAgency.Identifier; CodelistResponsibleAgency.Qualifier					ebXML	
InformationResource.AgencyProgramme.Text					ebXML	
ListOfAgency						xCBL
ResponsibleAgency Synonym(s): Association Context: UN/EDIFACT in UNH segment. An organisation responsible for assigning codes for messages Broader term: ResponsibleParty					ebXML	
ResponsibleParty Narrower term(s): ResponsibleAgency					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Contact						
AccountsDepartment.Contact.ElectronicMail.Identifier					ebXML	
AccountsDepartment.Contact.Fax.Identifier					ebXML	
AccountsDepartment.Contact.Telephone.Identifier					ebXML	
AccountsDepartment.Contact.Telex.Identifier					ebXML	
AccountsDepartment.Contact.X400.Identifier					ebXML	
accountsPayableContact		1A1-2				
AccountsPayableDepartment.Contact.ElectronicMail.Identifier					ebXML	
AccountsPayableDepartment.Contact.Fax.Identifier					ebXML	
AccountsPayableDepartment.Contact.Telephone.Identifier					ebXML	
AccountsPayableDepartment.Contact.Telex.Identifier					ebXML	
AccountsPayableDepartment.Contact.X400.Identifier					ebXML	
AccountsPayables.Contact.Department.Identifier					ebXML	
AccountsPayables.Contact.Person.Name					ebXML	
accountsReceivableContact		1A1-2				
AccountsReceivableDepartment.Contact.ElectronicMail.Identifier					ebXML	
AccountsReceivableDepartment.Contact.Fax.Identifier					ebXML	
AccountsReceivableDepartment.Contact.Telephone.Identifier					ebXML	
AccountsReceivableDepartment.Contact.Telex.Identifier					ebXML	
AccountsReceivableDepartment.Contact.X400.Identifier					ebXML	
Consignor.Information.Contact.Department.Identifier					ebXML	
Consignor.Information.Contact.Fax.Identifier					ebXML	
Consignor.Information.Contact.Person.Name					ebXML	
Consignor.Information.Contact.Telephone.Identifier					ebXML	
Contact					ebXML	xCBL
Contact.ElectronicMail.Identifier					ebXML	
Contact.Fax.Identifier					ebXML	
Contact.Telephone.Identifier					ebXML	
Contact.Telex.Identifier					ebXML	
ContactDescription						xCBL
ContactFunction					ebXML	xCBL
ContactFunctionCoded						xCBL
ContactFunctionCodedOther						xCBL
ContactID						xCBL
ContactInformation		0A1, 1A1-2, 1B1, 2A1, 2A4-7, 3A1-7, 3B1-6, 3C2-6, 3D8-9, 4A4, 4B2, 4C1, 5C1-5, 5D1-2				
ContactName						xCBL
ContactNumber						xCBL
ContactNumberTypeCoded						xCBL
ContactNumberTypeCodedOther						xCBL
ContactNumberValue						xCBL
ContactOrganisation					ebXML	
ContactParty					ebXML	
ContactParty.CustomerAssigned.Identifier					ebXML	
ContactParty.Identifier					ebXML	
ContactParty.Location.City.Name					ebXML	
ContactParty.Location.Country.Code					ebXML	
ContactParty.Location.CountrySubEntity.Code					ebXML	
ContactParty.Location.POBox.Identifier					ebXML	
ContactParty.Location.Postcode.Identifier					ebXML	
ContactParty.Location.Street.Name					ebXML	
ContactParty.Name					ebXML	
ContactParty.SiemensAssigned.Identifier					ebXML	
ContactParty.Transport.Contact.Fax.Identifier					ebXML	
ContactParty.Transport.Contact.Telephone.Identifier					ebXML	
ContactParty.Transportation.Contact.Department.Identifier					ebXML	
ContactParty.Transportation.Contact.Person.Name					ebXML	
ContactPerson					ebXML	
ContactRelationType						xCBL

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
ContactRelationTypeCoded						xCBL
ContactRelationTypeCodedOther						xCBL
Customer.AccountsDepartment.Contact.Department.Identifier					ebXML	
Customer.AccountsDepartment.Contact.Person.Name					ebXML	
Customer.DeliverySchedule.Contact.Department.Identifier					ebXML	
Customer.DeliverySchedule.Contact.Fax.Identifier					ebXML	
Customer.DeliverySchedule.Contact.Person.Name					ebXML	
Customer.DeliverySchedule.Contact.Telephone.Number					ebXML	
Customer.DeliverySchedule.Contact.TelephoneExtension.Identifier					ebXML	
Customer.DeliverySchedule.Contact.Teletext.Number					ebXML	
Customer.DeliverySchedule.Contact.Telex.Identifier					ebXML	
Customer.Information.Contact.Department.Identifier					ebXML	
Customer.Information.Contact.Fax.Identifier					ebXML	
Customer.Information.Contact.Person.Name					ebXML	
Customer.Information.Contact.Telephone.Identifier					ebXML	
Customer.MaterialsManagement.Contact.Fax.Identifier					ebXML	
Customer.MaterialsManagement.Contact.Telephone.Identifier					ebXML	
Customer.Purchasing.Contact.Fax.Identifier					ebXML	
Customer.Purchasing.Contact.Identifier					ebXML	
Customer.Purchasing.Contact.Telephone.Identifier Synonym(s): Buyer.Purchasing.Contact.Telephone.Identifier					ebXML	
CustomsBroker.Information.Contact.Department.Identifier					ebXML	
CustomsBroker.Information.Contact.Fax.Identifier					ebXML	
CustomsBroker.Information.Contact.Person.Name					ebXML	
CustomsBroker.Information.Contact.Telephone.Identifier					ebXML	
CustomsDeclarationContact		3B6				
DeliveryParty.Contact.ElectronicMail.Identifier Synonym(s): GoodsReceipt.Contact.Internet.Identifier					ebXML	
DeliveryParty.Contact.Fax.Identifier Synonym(s): GoodsReceipt.Contact.Fax.Identifier					ebXML	
DeliveryParty.Contact.Telephone.Identifier					ebXML	
DeliveryParty.Contact.Telex.Identifier Synonym(s): GoodsReceipt.Contact.Telex.Identifier					ebXML	
DeliveryParty.Contact.X400.Identifier Synonym(s): GoodsReceipt.Contact.X400.Identifier					ebXML	
DispatchParty.Information.Contact.Department.Identifier					ebXML	
DispatchParty.Information.Contact.Fax.Identifier					ebXML	
DispatchParty.Information.Contact.Person.Name					ebXML	
DispatchParty.Information.Contact.Telephone.Identifier					ebXML	
Document.Contact.Department.Identifier					ebXML	
Document.Contact.Person.Name					ebXML	
Document.Contact.Telephone.Identifier					ebXML	
DocumentRecipient.Information.Contact.Department.Identifier					ebXML	
DocumentRecipient.Information.Contact.Fax.Identifier					ebXML	
DocumentRecipient.Information.Contact.Person.Name					ebXML	
DocumentRecipient.Information.Contact.Telephone.Identifier					ebXML	
FreightForwarder.Information.Contact.Department.Identifier					ebXML	
FreightForwarder.Information.Contact.Fax.Identifier					ebXML	
FreightForwarder.Information.Contact.Person.Name					ebXML	
FreightForwarder.Information.Contact.Telephone.Identifier					ebXML	
FreightForwarder.Transportation.Contact.Department.Identifier					ebXML	
FreightForwarder.Transportation.Contact.Fax.Identifier					ebXML	
FreightForwarder.Transportation.Contact.Person.Name					ebXML	
FreightForwarder.Transportation.Contact.Telephone.Identifier					ebXML	
GlobalDeclarationContactTypeCode		3B6				
GoodsCustodian.Transportation.Contact.Department.Identifier					ebXML	
GoodsCustodian.Transportation.Contact.Fax.Number					ebXML	
GoodsCustodian.Transportation.Contact.Person.Name					ebXML	
GoodsCustodian.Transportation.Contact.Telephone.Number					ebXML	
HazardousContact						xCBL
Importer.Information.Contact.Department.Identifier					ebXML	
Importer.Information.Contact.Fax.Identifier					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Importer.Information.Contact.Person.Name					ebXML	
Importer.Information.Contact.Telephone.Identifier					ebXML	
Information.Contact.ElectronicMail.Identifier					ebXML	
Information.Contact.Fax.Identifier					ebXML	
Information.Contact.Telephone.Identifier					ebXML	
Information.Contact.Telex.Identifier					ebXML	
Information.Contact.X400.Identifier					ebXML	
InformationContact					ebXML	
InformationResource.Contact					ebXML	
InformationResource.Contact.ElectronicMail.Identifier					ebXML	
InformationResource.Contact.Fax.Identifier					ebXML	
InformationResource.Contact.HoursOfService.Text					ebXML	
InformationResource.Contact.Location.City.Name					ebXML	
InformationResource.Contact.Location.Country.Name					ebXML	
InformationResource.Contact.Location.CountrySubEntity.Name					ebXML	
InformationResource.Contact.Location.Postcode.Identifier					ebXML	
InformationResource.Contact.Location.Street.Name					ebXML	
InformationResource.Contact.Telephone.Identifier					ebXML	
InformationResource.ContactOrganisation.Name					ebXML	
InformationResource.ContactPerson.Name					ebXML	
lessorContact		1A1-2				
ListOfContact						xCBL
ListOfContactNumber						xCBL
ListOfContactRelationType						xCBL
MaterialsManagement.Contact.Department.Identifier					ebXML	
MaterialsManagement.Contact.Person.Name					ebXML	
NotificationParty.Information.Contact.Department.Identifier					ebXML	
NotificationParty.Information.Contact.Fax.Identifier					ebXML	
NotificationParty.Information.Contact.Person.Name					ebXML	
NotificationParty.Information.Contact.Telephone.Identifier					ebXML	
OfficialContact					ebXML	
OrderContact					ebXML	xCBL
OtherContacts						xCBL
Party.BusinessFunction.Contact.CommunicationChannelType.Identifier					ebXML	
Party.BusinessFunction.Contact.Identifier					ebXML	
Party.BusinessFunction.Contact.Name					ebXML	
Party.Purchasing.Contact.Identifier					ebXML	
PartyRole.BusinessFunction.Contact.CommunicationChannelType.Identifier					ebXML	
Product.DeliverySchedule.Contact.Person.Name					ebXML	
PurchaseOrder.Contact.Department.Identifier					ebXML	
PurchaseOrder.Contact.Person.Name					ebXML	
Purchasing.Contact.Department.Identifier					ebXML	
Purchasing.Contact.ElectronicMail.Identifier					ebXML	
Purchasing.Contact.Fax.Identifier					ebXML	
Purchasing.Contact.Person.Name					ebXML	
Purchasing.Contact.Telephone.Identifier					ebXML	
Purchasing.Contact.Telex.Identifier					ebXML	
Purchasing.Contact.X400.Identifier					ebXML	
PurchasingContact					ebXML	
PurchasingDepartment.PurchaseOrder.Issuer.Contact.Telephone.Identifier					ebXML	
ReceivingContact						xCBL
SalesInformation.Contact.ElectronicMail.Identifier					ebXML	
SalesInformation.Contact.Fax.Identifier					ebXML	
SalesInformation.Contact.Telephone.Identifier					ebXML	
SalesInformation.Contact.Telex.Identifier					ebXML	
SalesInformation.Contact.X400.Identifier					ebXML	
Schedule.Contact.Department.Identifier					ebXML	
Schedule.Contact.Person.Name					ebXML	
ShippingContact						xCBL
Supplier.AccountsDepartment.Contact.Department.Identifier					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Supplier.AccountsDepartment.Contact.Person.Name					ebXML	
Supplier.AccountsReceivableDepartment.ContactPerson.Electronic Mail.Identifier					ebXML	
Supplier.Contact.Department.Identifier					ebXML	
Supplier.Contact.Fax.Identifier					ebXML	
Supplier.Contact.Person.Name					ebXML	
Supplier.Contact.Telephone.Identifier					ebXML	
Supplier.Contact.TelephoneExtension.Identifier					ebXML	
Supplier.Contact.Teletext.Identifier					ebXML	
Supplier.Contact.Telex.Identifier					ebXML	
Supplier.DangerousGoods.Contact.Department.Identifier					ebXML	
Supplier.DangerousGoods.Contact.Fax.Identifier					ebXML	
Supplier.DangerousGoods.Contact.Person.Name					ebXML	
Supplier.DangerousGoods.Contact.Telephone.Identifier					ebXML	
Supplier.DeliverySchedule.Contact.Department.Identifier					ebXML	
Supplier.DeliverySchedule.Contact.Person.Name					ebXML	
Supplier.SalesDepartment.ContactPerson.Fax.Identifier					ebXML	
Supplier.SalesDepartment.ContactPerson.Telephone.Identifier					ebXML	
TerminalOperator.Information.Contact.Department.Identifier					ebXML	
TerminalOperator.Information.Contact.Fax.Identifier					ebXML	
TerminalOperator.Information.Contact.Person.Name					ebXML	
TerminalOperator.Information.Contact.Telephone.Identifier					ebXML	
UltimateReceiver.Contact.Department.Identifier					ebXML	
UltimateReceiver.Contact.Fax.Identifier					ebXML	
UltimateReceiver.Contact.Person.Name					ebXML	
UltimateReceiver.Contact.Telephone.Identifier					ebXML	
UltimateReceiver.Contact.TelephoneExtension.Identifier					ebXML	
UltimateReceiver.Contact.Teletext.Identifier					ebXML	
UltimateReceiver.Contact.Telex.Identifier					ebXML	
UltimateReceiver.Information.Contact.Department.Identifier					ebXML	
UltimateReceiver.Information.Contact.Fax.Identifier					ebXML	
UltimateReceiver.Information.Contact.Person.Name					ebXML	
UltimateReceiver.Information.Contact.Telephone.Identifier					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Telephone						
AccountsDepartment.Contact.Telephone.Identifier					ebXML	
AccountsPayableDepartment.Contact.Telephone.Identifier					ebXML	
AccountsReceivableDepartment.Contact.Telephone.Identifier					ebXML	
Consignor.Information.Contact.Telephone.Identifier					ebXML	
Contact.Telephone.Identifier					ebXML	
ContactParty.Transport.Contact.Telephone.Identifier					ebXML	
Customer.DeliverySchedule.Contact.Telephone.Number					ebXML	
Customer.DeliverySchedule.Contact.TelephoneExtension.Identifier					ebXML	
Customer.Information.Contact.Telephone.Identifier					ebXML	
Customer.MaterialsManagement.Contact.Telephone.Identifier					ebXML	
Customer.Purchasing.Contact.Telephone.Identifier Synonym(s): Buyer.Purchasing.Contact.Telephone.Identifier					ebXML	
CustomsBroker.Information.Contact.Telephone.Identifier					ebXML	
DeliveryParty.Contact.Telephone.Identifier					ebXML	
DispatchParty.Information.Contact.Telephone.Identifier					ebXML	
Document.Contact.Telephone.Identifier					ebXML	
DocumentRecipient.Information.Contact.Telephone.Identifier					ebXML	
emergencyTelephoneNumber		3B6				
FreightForwarder.Information.Contact.Telephone.Identifier					ebXML	
FreightForwarder.Transportation.Contact.Telephone.Identifier					ebXML	
GoodsCustodian.Transportation.Contact.Telephone.Number					ebXML	
Importer.Information.Contact.Telephone.Identifier					ebXML	
Information.Contact.Telephone.Identifier					ebXML	
InformationResource.Contact.Telephone.Identifier					ebXML	
InformationResource.Product.Distributor.Telephone.Identifier					ebXML	
NotificationParty.Information.Contact.Telephone.Identifier					ebXML	
Party.Person.Telephone.DirectLine.Identifier Synonym(s): Person.Internal.Telephone.Number					ebXML	
Party.Telephone.Switchboard.Identifier Synonym(s): TelephoneSwitchboard.Identifier					ebXML	
Purchasing.Contact.Telephone.Identifier					ebXML	
PurchasingDepartment.PurchaseOrder.Issuer.Contact.Telephone.Identifier					ebXML	
SalesInformation.Contact.Telephone.Identifier					ebXML	
Supplier.Contact.Telephone.Identifier					ebXML	
Supplier.Contact.TelephoneExtension.Identifier					ebXML	
Supplier.DangerousGoods.Contact.Telephone.Identifier					ebXML	
Supplier.SalesDepartment.ContactPerson.Telephone.Identifier					ebXML	
Switchboard Synonym(s): TelephoneSwitchboard					ebXML	
Telephone					ebXML	
Telephone.Area.Code Synonym(s): Telephone.GeographicArea.Code					ebXML	
Telephone.Country.Code					ebXML	
Telephone.Identifier Synonym(s): Telephone.Number					ebXML	
Telephone.National.Prefix.Identifier					ebXML	
TelephoneArea					ebXML	
TelephoneExchange					ebXML	
TelephoneExchange.Identifier					ebXML	
TelephoneExtension					ebXML	
TelephonelIdentifier Synonym(s): Telephonenumber					ebXML	
TelephonelIdentifier.Format.Code					ebXML	
TelephonelIdentifierType					ebXML	
TelephoneNumber	OF308, 612, SF33, 85, 85P, 86, 86A, 129, 171, 294, 295, 424			O: Identifier Keywords		
TelephoneOrder					ebXML	
TelephoneSubscriber Synonym(s): Subscriber Context: Telephone usage					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
TelephoneSubscriber.Telephone.Identifier Synonym(s): Subscriber.Telephone.Identifier					ebXML	
TelephoneSwitchboard Synonym(s): Switchboard					ebXML	
TerminalOperator.Information.Contact.Telephone.Identifier					ebXML	
UltimateReceiver.Contact.Telephone.Identifier					ebXML	
UltimateReceiver.Contact.TelephoneExtension.Identifier					ebXML	
UltimateReceiver.Information.Contact.Telephone.Identifier					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Amount						
ActualAmount						xCBL
adjustmentAmount		3C5				
AdjustmentAmount						xCBL
Allowance.Amount					ebXML	
Allowance.ValueBasis.Amount					ebXML	
AllowanceType.DutyType.Currency.Amount					ebXML	
AllowanceType.FeeType.Currency.Amount					ebXML	
AllowanceType.TaxType.Currency.Amount					ebXML	
AlterationImprovementAmount				O: Payment Names		
Aluminium.Price.Current.Amount					ebXML	
Amount	SF26, 33, 86, 129					xCBL
approvedAmount		3C2				
budgetAmount		2A4				
Calculation.Price.Amount					ebXML	
Charge.Amount					ebXML	
Charge.MutuallyDefined.Amount	Synonym(s):				ebXML	
Charge.MutuallyAgreed.Amount					ebXML	
Charge.ValueBasis.Amount					ebXML	
chargeAmount		3C5				
ChargeType.DutyType.Currency.Amount					ebXML	
ChargeType.FeeType.Currency.Amount					ebXML	
ChargeType.TaxType.Currency.Amount					ebXML	
Copper.Price.Current.Amount					ebXML	
CountableAmount		2A1, 2A4, 3B2-6, 3C5, 3D8-9				
CreditAmount						xCBL
currentPrincipalAmountDue		3C5				
CustomsValue.Amount					ebXML	
DebitAmount						xCBL
depositAmount		3C3				
discountAmount		3C6				
DiscountAmount						xCBL
DiscountBasis.Total.Amount					ebXML	
Document.LinItem.Total.Amount					ebXML	
Document.TargetCurrency.Total.Amount					ebXML	
Document.Total.Amount					ebXML	
DocumentType.Taxable.Total.Amount					ebXML	
DocumentType.TaxType.Tax.Amount					ebXML	
DocumentType.Total.Amount					ebXML	
Dutiable.Amount					ebXML	
DutyType.Category.CalculationBasis.Amount					ebXML	
DutyType.Category.Duty.Amount					ebXML	
DutyType.Duty.Amount					ebXML	
ExcessTransportation.Cost.Amount					ebXML	
ExpectedAmount						xCBL
FeeAmount						xCBL
feeAmountDue		3C5				
feeOnAmountDue		3C5				
FeeType.Category.CalculationBasis.Amount					ebXML	
FeeType.Category.Fee.Amount					ebXML	
FeeType.Fee.Amount					ebXML	
FinancialAmount		2A1-2, 2A4, 3A1- 7, 3B6, 3C2-6, 4A4, 5C1-3, 5D1-2				
ForInformation.Charge.Amount					ebXML	
FreeOnBoardValue.Amount					ebXML	
Freight.Charge.Amount					ebXML	
FreightCost.Amount					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
GlobalMonetaryAmountTypeCode		3C2-6				
GrossWeight.ControlTotal.Amount					ebXML	
Information.Price.Amount					ebXML	
Insurance.Amount					ebXML	
Insurance.Charge.Amount					ebXML	
InsuranceValue.Amount					ebXML	
interestAmountDue		3C5				
interestOnAmountDue		3C5				
Invoice.CustomsDutyType.Amount					ebXML	
Invoice.Expense.Total.Amount					ebXML	
Invoice.FeeType.Amount					ebXML	
Invoice.LineItem.Amount					ebXML	
Invoice.LineItem.CustomsDutyType.Amount					ebXML	
Invoice.LineItem.FeeType.Amount					ebXML	
Invoice.Payment.Due.Amount					ebXML	
Invoice.Tax.Total.Amount					ebXML	
Invoice.Total.Amount					ebXML	
Invoice.Total.Gross.Amount					ebXML	
Invoice.Total.Net.Amount					ebXML	
Invoice.Valuation.Amount					ebXML	
InvoicingDetailAmountDue						xCBL
InvoicingDetailAmountPaid						xCBL
LegalReportingInvoicedAmount						xCBL
LegalReportingPaymentAmount						xCBL
LineItem.Allowance.Amount					ebXML	
LineItem.AllowanceType.DutyType.Amount					ebXML	
LineItem.AllowanceType.FeeType.Amount					ebXML	
LineItem.AllowanceType.TaxType.Amount					ebXML	
LineItem.Amount Narrower term(s): LineItem.Net.Amount; LineItem.Gross.Amount					ebXML	
LineItem.Charge.Amount					ebXML	
LineItem.ChargeType.DutyType.Amount					ebXML	
LineItem.ChargeType.FeeType.Amount					ebXML	
LineItem.ChargeType.TaxType.Amount					ebXML	
LineItem.Net.Amount					ebXML	
LineItem.TargetCurrency.Net.Amount					ebXML	
LineItem.Total.Amount					ebXML	
Loading.Charge.Amount					ebXML	
LoadingAndHandling.Cost.Amount					ebXML	
LoadingCost.Amount					ebXML	
MaintenanceFee.Amount					ebXML	
MaintenanceFee.Due.Amount					ebXML	
MonetaryAmount		2A1-2, 2A4, D12523A1-7, 3B6, 3C2-3, 3C5- 6, 4A4, 5C1-3, 5D1-2				xCBL
NetWeight.ControlTotal.Amount					ebXML	
PackagingCost.Amount					ebXML	
paymentAmount		3C5-6				
PaymentAmount						xCBL
paymentAmountDue		3C5				
PaymentTerm.LatePayment.Interest.Amount					ebXML	
PaymentTerm.Payment.Due.Amount					ebXML	
PaymentTerm.Payment.TargetCurrency.Amount					ebXML	
PercentAmount		3C3, 3C5, 3D8- 9, 5C2				
PrepaidAmount						xCBL
prepaymentAmount		3C3				
Price.ActualVsList.Difference.Amount					ebXML	
PriceType.Price.Amount					ebXML	
PriceUnit.NetPrice.Amount					ebXML	
PriceUnit.PriceType.Price.Amount					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Product.Catalogue.UnitPrice.Amount Synonym(s): Product.ListPrice.Amount					ebXML	
Product.Contract.Price.Amount					ebXML	
Product.CustomsValue.Amount					ebXML	
Product.Discount.Price.Amount					ebXML	
Product.Distributor.Price.Amount					ebXML	
Product.Distributor.PromotionalPrice.ManufacturerAssigned.Price.Amount					ebXML	
Product.GrossUnitPrice.Price.Amount					ebXML	
Product.NetUnitPrice.Price.Amount					ebXML	
Product.PriceType.PartyRoleAssigned.Amount					ebXML	
Product.PriceType.UnitPrice.Amount					ebXML	
Product.Promotion.Price.Amount					ebXML	
Product.Quote.Price.Amount					ebXML	
Product.ResidualValue.Amount					ebXML	
Product.Retail.Price.Amount					ebXML	
Product.SalesUnitPrice.Amount Synonym(s): Product.TradedUnitPrice.Amount					ebXML	
Product.SuggestedRetailPrice.Amount					ebXML	
Product.SuggestedRetailPrice.ManufacturerAssigned.Price.Amount					ebXML	
Product.SuggestedRetailPrice.WholesalerAssigned.Price.Amount					ebXML	
Product.Wholesale.Price.Amount					ebXML	
PurchaseOrder.LineItem.Amount					ebXML	
Quote.Total.Amount					ebXML	
RemittanceAdvice.Total.Amount					ebXML	
requestedAmount		3C2				
Settlement.Amount					ebXML	
Settlement.Currency.Amount					ebXML	
SettlementAmount						xCBL
targetResaleAmount		5C2				
Tax.Amount					ebXML	
Tax.TargetCurrency.Amount					ebXML	
Tax.TaxType.Total.Amount					ebXML	
Tax.VAT.Amount					ebXML	
Tax.VAT.Tax.Amount					ebXML	
Taxable.Amount					ebXML	
TaxableAmount						xCBL
TaxableAmountInTaxAccountingCurrency						xCBL
TaxAmount		2A2, 3A1				xCBL
TaxAmountInTaxAccountingCurrency						xCBL
TaxType.Category.CalculationBasis.Amount					ebXML	
TaxType.Category.Tax.Amount					ebXML	
TaxType.Tax.Amount					ebXML	
totalAmount		3B6, 3C3				
TotalAmount						xCBL
totalAmountDue		3C5				
TotalAmountDue						xCBL
TotalAmountMinusDiscount						xCBL
TotalAmountOfContract	OF307, SF26					
TotalAmountPaid						xCBL
TotalAmountPayable						xCBL
totalLineItemAmount		3C3				
totalPaymentAmount		3C5				
totalPrincipalAmountDue		3C5				
TotalSettlementAmount						xCBL
TotalTaxAmount						xCBL
TransferPrice.TargetCurrency.Adjustment.Amount					ebXML	
TransferPrice.Tax.Amount					ebXML	
TransferPrice.TransferPriceType.Amount					ebXML	
unappliedCashAmount		3C5				
unappliedCreditAmount		3C5				

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
UndefinedTransportService.Charge.Amount					ebXML	
UnitPrice.Amount					ebXML	
VisibilityOfAmounts						xCBL

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Quantity						
acceptedQuantity		4B2				
AcknowledgementRecipient.Required.Acknowledgement.Copy.Quantity					ebXML	
Administration.Report.Quantity					ebXML	
Allowance.QuantityType.MeasurementUnit.Value					ebXML	
AuctionQuantity						xCBL
authorizedQuantity		5D1-2				
availableQuantity		4C1				
AvailableQuantity						xCBL
BackOrder.Quantity					ebXML	
backOrderedQuantity		3A5-6				
BasisQuantityRange						xCBL
Charge.QuantityType.MeasurementUnit.Value					ebXML	
ChargeableWeight.Quantity					ebXML	
Commitment.Validity.Period.Quantity					ebXML	
committedInventoryQuantity		4C1				
consignedInventoryQuantity		4C1				
Consignment.Volume.ControlTotal.Quantity					ebXML	
Consignor.Required.DocumentType.Copy.Quantity					ebXML	
Consignor.Required.DocumentType.Original.Quantity					ebXML	
consolidatedClearanceQuantity		3B6				
CumulativeQuantity					ebXML	
Customer.Required.DocumentType.Copy.Quantity					ebXML	
Customer.Required.DocumentType.Original.Quantity					ebXML	
CustomsBroker.Required.DocumentType.Copy.Quantity					ebXML	
CustomsBroker.Required.DocumentType.Original.Quantity					ebXML	
defectiveInventoryQuantity		4C1				
Delivery.CumulativeQuantity.Start.Date					ebXML	
Delivery.Quantity.Synonym(s): Received.Quantity.Context: from the viewpoint of the Customer.					ebXML	
DeliveryLocation.Delivery.Quantity					ebXML	
DeliveryLocation.Delivery.Split.Quantity					ebXML	
DeliveryQuantity					ebXML	
DeliveryQuantity.Delivery.Earliest.Date					ebXML	
DeliveryQuantity.Delivery.Latest.Date					ebXML	
DeliveryQuantity.Delivery.Requested.Date					ebXML	
DeliveryQuantity.Discharge.Date					ebXML	
DeliveryQuantity.Dispatch.Earliest.Date					ebXML	
DeliveryQuantity.Dispatch.Latest.Date					ebXML	
DeliveryQuantity.Dispatch.Required.Date					ebXML	
DeliverySchedule.Delivery.Quantity					ebXML	
DeliverySchedule.Delivery.SplitQuantity.Date					ebXML	
DeliverySchedule.Delivery.SplitQuantity.DateAndTime					ebXML	
DeliverySchedule.Frequency.Issue.Period.Quantity					ebXML	
dieQuantity		3D8-9				
DieQuantity		3D8-9				
DocumentRecipient.DeliveryNote.Copy.Quantity					ebXML	
DocumentRecipient.Document.Original.Quantity					ebXML	
DocumentRecipient.DocumentType.Copy.Quantity					ebXML	
DocumentRecipient.Required.DocumentType.Original.Quantity					ebXML	
DocumentType.Original.Quantity					ebXML	
DutyType.Category.CalculationBasis.Quantity					ebXML	
estimated1stYearAssemblyQuantity		5C2				
estimated2ndYearAssemblyQuantity		5C2				
estimated3rdYearAssemblyQuantity		5C2				
estimatedLifetimeQuantity		5C2				
FeeType.Category.CalculationBasis.Quantity					ebXML	
ForecastProductQuantity		4A4				
forecastQuantity		4A4				
GlobalForecastQuantityIdentifier		4A4				
GlobalLotQuantityClassificationCode		3D8-9				

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
grossDieQuantity		3D8-9				
Importer.Required.Document.Copy.Quantity					ebXML	
Importer.Required.Document.Original.Quantity					ebXML	
inTransitQuantity		4C1				
Inventory.Replenishment.Basis.Quantity					ebXML	
InventoryProductQuantity		4C1				
Invoice.LineItem.QuantityType.Quantity					ebXML	
Invoice.Quantity					ebXML	
Invoicee.Required.Document.Copy.Quantity					ebXML	
Invoicee.Required.DocumentType.Original.Quantity					ebXML	
ItemStatusQuantity						xCBL
LadingQuantity						xCBL
ListOfQuantity						xCBL
ListOfQuantityCoded						xCBL
Location.Person.Quantity					ebXML	
LotQuantity		3B2, 3B6, 3D8-9				
LotTypeQuantity		3D8-9				
MaxBackOrderQuantity						xCBL
MinimumOrderCharge Synonym(s): MinimumQuantitySurcharge					ebXML	
minimumOrderQuantity		2A1-2, 5C1-2				
MinimumOrderQuantity				O: Count Names		
MinimumQuantity						xCBL
MultipleQuantityPrice		2A1				
netDieQuantity		3D8-9				
nonSaleableInventoryQuantity		4C1				
NotificationParty.Required.DocumentType.Copy.Quantity					ebXML	
NotificationParty.Required.DocumentType.Original.Quantity					ebXML	
onOrderQuantity		4C1				
openBoxInventoryQuantity		4C1				
Ordered.Quantity					ebXML	
OrderedQuantity					ebXML	
OrderedQuantity.Tolerance.Percent					ebXML	
OrderQuantity				O: Count Names		
OriginalScheduledShipQuantity		3D8-9				
Package.ControlTotal.Quantity					ebXML	
Package.Quantity					ebXML	
palletQuantity		2A2				
PalletQuantity				O: Count Names		
Party.Required.DocumentType.Original.Quantity					ebXML	
PartyRole.Required.DocumentType.Copy.Quantity					ebXML	
PaymentTerm.ReferenceDateType.TimeUnit.Quantity					ebXML	
PaymentTerm.TimeUnit.Quantity Synonym(s): PaymentTerm.TimeUnit.Number					ebXML	
previousLotQuantity		3D8-9				
previousLotTypeQuantity		3D8-9				
Price.CalculationBasis.Maximum.Quantity					ebXML	
Price.CalculationBasis.Minimum.Quantity					ebXML	
Price.Order.Maximum.Quantity					ebXML	
Price.Order.Minimum.Quantity					ebXML	
Price.Product.Maximum.Quantity					ebXML	
Price.Product.Minimum.Quantity					ebXML	
PriceBasisQuantity						xCBL
PriceQuantityRange						xCBL
PriceUnit.Quantity					ebXML	
Product.Actual.Quantity					ebXML	
Product.DimensionType.Significance.Value Synonym(s): OneLength.Quantity: Context - Siemens					ebXML	
Product.IncludedProduct.Quantity					ebXML	
Product.Maximum.Order.Quantity					ebXML	
Product.Order.Minimum.Quantity					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
Product.PriceUnit.Quantity					ebXML	
Product.Quantity					ebXML	
ProductQuantity		2A1-2, 3A1-7, 3B2, 3B6, 3C3, 3D8-9, 4A4, 4B2, 4C1, 5C1-3, 5D1-2				
projectedFinalLotQuantity		3D8-9				
PurchaseOrder:LineItem.QuantityType.Quantity					ebXML	
Quantity	SF26	2A1, 2A5				xCBL
QuantityAllowanceOrCharge						xCBL
QuantityCoded						xCBL
QuantityDifference					ebXML	
QuantityDifference.Reason.Code					ebXML	
QuantityDifference.Reason.OrganisationAssigned.Code					ebXML	
QuantityDifference.Reason.Text					ebXML	
QuantityDifference.Value					ebXML	
QuantityDiscount					ebXML	
QuantityMonetaryValue						xCBL
QuantityQualifierCoded						xCBL
QuantityQualifierCodedOther						xCBL
QuantityRange						xCBL
QuantitySurcharge					ebXML	
QuantityType					ebXML	
QuantityType.MeasurementUnit.Value					ebXML	
QuantityType.QuantityDifference.Value					ebXML	
QuantityValue						xCBL
Quote.Delivery.Quantity					ebXML	
Received.Cumulative.Quantity Synonym(s): Delivered.Cumulative.Quantity Context: from the viewpoint of the Supplier.					ebXML	
receivedQuantity		4B2, 4C1				
reportableQuantity		3B6				
reservedInventoryQuantity		4C1				
scheduledShipQuantity		3A4-7, 3D8-9				
Shipment.Package.Quantity					ebXML	
shippedQuantity		3A5-6, 3B2, 3B6, 3D8-9, 5C3				
ShipToSubQuantity						xCBL
Split.Quantity					ebXML	
SplitQuantity					ebXML	
SplitQuantity.Arrival.Date					ebXML	
SplitQuantity.Arrival.DateAndTime					ebXML	
SplitQuantity.Delivery.Confirmed.Date					ebXML	
SplitQuantity.Delivery.Confirmed.DateAndTime					ebXML	
SplitQuantity.Delivery.Earliest.Date					ebXML	
SplitQuantity.Delivery.Earliest.DateAndTime					ebXML	
SplitQuantity.Delivery.Expected.Date					ebXML	
SplitQuantity.Delivery.Expected.Date					ebXML	
SplitQuantity.Delivery.Expected.DateAndTime					ebXML	
SplitQuantity.Delivery.Expected.DateAndTime					ebXML	
SplitQuantity.Delivery.Latest.Date					ebXML	
SplitQuantity.Delivery.Latest.DateAndTime					ebXML	
SplitQuantity.Delivery.Requested.Date					ebXML	
SplitQuantity.Delivery.Requested.DateAndTime					ebXML	
SplitQuantity.Delivery.WaitingTime.TimeUnit.Quantity					ebXML	
SplitQuantity.Discharge.Date					ebXML	
SplitQuantity.Discharge.DateAndTime					ebXML	
SplitQuantity.Dispatch.Earliest.Date					ebXML	
SplitQuantity.Dispatch.Earliest.DateAndTime					ebXML	
SplitQuantity.Dispatch.Latest.Date					ebXML	
SplitQuantity.Dispatch.Latest.DateAndTime					ebXML	
SplitQuantity.Dispatch.Requested.Date					ebXML	

Tag	FedForm	RosettaNet	Grants LMI	OASIS	ebXML	xCBL
SplitQuantity.Dispatch.Requested.DateAndTime					ebXML	
tarrifQuantity		3B6				
TaxType.Category.CalculationBasis.Quantity					ebXML	
TerminalOperator.Required.Document.Copy.Quantity					ebXML	
TerminalOperator.Required.Document.Original.Quantity					ebXML	
TimeDuration.Quantity					ebXML	
TotalQuantity						xCBL
UltimateReceiver.DocumentType.Copy.Quantity					ebXML	
UltimateReceiver.Required.DocumentType.Copy.Quantity					ebXML	
UltimateReceiver.Required.DocumentType.Original.Quantity					ebXML	
waferQuantity		3D8-9				
WaitingTime.TimeUnit.Quantity					ebXML	
warehouseQuantity		3A2				

Appendix B

Abbreviations

ANSI	American National Standards Institute
ASC	Accredited Standards Committee
CEFACT	United Nations Center for trade facilitation and electronic business
DCN	Data Consortium Namespace
DTD	document-type definition
ebXML	electronic business XML
EC	electronic commerce
EDI	electronic data exchange
EDIFACT	EDI for Administration, Commerce and Transport
FIPS	Federal Information Processing Standard
GSA	General Services Administration
HTML	Hypertext Markup Language
IC	implementation convention
ISO	International Organization for Standardization
IT	information technology
OASIS	Organization for the Advancement of Structured Information Standards
OBI	Open Buying on the Internet
OF	optional form
PIPS	Partner Interface Profiles
RNIF	RosettaNet Implementation Framework
SF	standard form
SGML	Standardized General Markup Language
SOX	Schema for Object-Oriented XML
UN/CEFACT	United Nations Center for Trade Facilitation
W3C	World Wide Web Consortium
xCBL	XML Common Business Library

XDR
XML

XML-Data Reduced
Extensible Markup Language

REPORT DOCUMENTATION PAGE

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14. ABSTRACT The General Services Administration tasked Logistics Management Institute to review different XML tag dictionary initiatives to determine if the federal government can adopt a single standard for establishing XML tags. To establish an initial focus to this effort, GSA nominated the XML tags of a set of widely used federal forms as a pool of data elements to study. These forms included several grant forms and a set of XML tags that had already been built for an electronic federal grant application. In addition, GSA asked us to include tags developed by RosettaNet for ordering products. In addition to establishing an approach, we were asked to develop preliminary strategies for standardizing XML and data elements beyond simply assigning tags. This report contains the results of our analysis and provides specific recommendations for the federal government related to XML tag development and alignment with XML standards efforts.					
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