

## Foreign Account Tax Compliance Act

Metadata

#### Schema v1.0 11 1 10100110010010100101 01110 01 110001000111010 001011010101011101001010 011 10010110101101001 11010101011101001 01010010110101 01001 101001011010110 001 10 00101 n 1: 10: **User Guide** Publication 5188 (1-2015) Catalog Number 67384J Department of the Treasury Internal Revenue Service IRS.gov

#### FATCA | XML Metadata Schema

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#### FATCA | XML Metadata Schema



#### 1.1 | About FATCA

The Foreign Account Tax Compliance Act (FATCA) was enacted as part of the Hiring Incentives to Restore Employment (HIRE) Act in March 2010. FATCA was created to improve transparency and address tax noncompliance by US taxpayers. Generally, FATCA requires foreign financial institutions (FFIs) and passive nonfinancial foreign entities (NFFEs) to report to the IRS certain information about financial accounts held by U.S. taxpayers, or by foreign entities in which U.S. taxpayers hold a substantial ownership interest. In addition, an FFI commits to the reporting requirement by registering and signing an agreement with the IRS. In most cases, FFIs that do not register with the IRS will be subject to 30 percent withholding on all US source payments.

Financial institutions (FIs) that register under FATCA using the FATCA Online Registration System are issued a Global Intermediary Identification Number (GIIN) and appear on the FFI List published by the IRS. The FFI List is used to determine whether an FI is registered with FATCA and therefore whether payments to the FI must be withheld upon . The FFI List Search and Download tool allows users to search entities by GIIN, financial institution name, or country. For more information on FATCA, visit Foreign Account Tax Compliance Act (FATCA) Home Page.

#### 1.2 | Purpose

This guide is intended to serve as a tool for financial institutions (FIs) and Host Country Tax Authorities (HCTAs) who transmit data through the International Data Exchange Service (IDES). It explains how to prepare and validate the IDES metadata file used in FATCA reporting. The document assumes that the reader is familiar with the FATCA regulations and is experienced with extensible markup language (XML) and schema technology.

Document	Description
FATCA XML Schema v1.1 User Guide (Publication 5124)	Explains the schema and elements of Form 8966
FATCA IDES User Guide (Publication 5190) – Draft	Provides instructions on how to use the International Data Exchange Service to transmit FATCA reporting data
FATCA Online Registration User Guide (Publication 5118)	Provides instructions for the online system to complete an electronic Form 8957, FATCA Registration
FFI List Search and Download Tool User Guide (Publication 5147)	Provides instructions on how to use the FFI List Search and Download Tool to search for an approved GIIN

Table 1 - FATCA Related Documents List provides a list of related FATCA publications.

#### 1.3 | IDES Enrollment Process Overview

The IDES web application is a secure managed file transfer service that is available to both FIs and HCTAs to facilitate FATCA reporting. IDES is accessible to enrolled users over the Internet via Hypertext Transfer Protocol Secure (HTTPS) or Secure File Transfer Protocol (SFTP). The system only accepts encrypted electronic submissions, and will allow for the transmission of FATCA reporting in the approved Intergovernmental FATCA XML Schema v1.1 (FATCA XML). IDES provides for an end-to-end controlled file transfer with enhanced monitoring and security features. For more information on FATCA regulations, Form 8966 and instructions,

FATCA XML, and other related topics, visit the FATCA IDES Home Page.

IDES PROCESS OVERVIEW					
Obtain Digital Certificate	2 Create Account	3 Validate Approved GIIN & Digital Certificate Validate	4 Receive Enrollment Approval Receive Email	5 Prepare & Upload Files	6 Send Package to IRS
Certificate Authority	Tool and Create User Profile	Authorization	Instructions or SFTP Link to IDES	Encrypt FATCA Data	Confirmation
Steps		D	escription		
1	Obtain a digita	al certificate			
2-4	Create and va	lidate IDES ac	count		
5	<ul> <li>Prepare &amp; Upload FATCA XML file:</li> <li>Prepare, validate and digitally sign FATCA XML file</li> <li>Compress FATCA XML file with zip utility</li> <li>Encrypt FATCA XML file with AES-256 Key</li> <li>Encrypt AES Key with public key of each recipient</li> <li>Create sender metadata file</li> <li>Create the data packet (transmission archive)</li> </ul>				
6	Access IDES though web browser or SFTP client <ul> <li>Transmit the data packet to IDES</li> <li>Receive transmissionalerts and notifications</li> </ul>				

Figure 1: IDES Process Overview

#### 1.4 | Sender Metadata File

Metadata is a collection of data about the content and characteristics contained in the FATCA reporting files. It is used to ensure the data packets are correctly processed. IDES metadata files should never be encrypted. An authorized user should create and validate a metadata file using the FATCA Metadata XML Schema v1.0.

An unencrypted metadata file must be included in the data packet (.ZIP). A metadata file can also be generated using a sender metadata template on the IDES Enrollment Site. For more information on FATCA XML and data file preparation, refer to the FATCA IDES User Guide.

File Format	Naming Convention	Description
XML File	[SenderGIIN]_Metadata.xml	The sender GIIN is an IRS-approved GIIN or HCTA GIIN. Each HCTA will be assigned a HCTA GIIN with the format: 000000.00000.TA. <iso>. The country identifier is the ISO 3166- 1 standard numeric country code. The constant two-character code 'TA' identifies the entity type as the Tax Authority.</iso>

Table 2 - Sender Metadata Files

#### 1.5 | Comments

We appreciate your feedback on the quality and usefulness of this publication. Please send comments, with a reference to chapter, section, and page number(s) to: lbi.fatca.ides@irs.gov.

#### 1.6 | General Principles

The elements in the metadata schema are described by the definition, attribute, and constraints in Table 3.

Items	Description		
Element	Elements not described in the guide are not supported in the schema.		
Attribute(s)	The name(s) of the attribute(s). If blank, then there are no associated attributes		
Size/Pattern	<ul> <li>The minimum and/or maximum character size of the element value.</li> <li>If size is not defined, assume a limitation default of 200 characters.</li> </ul>		
<ul> <li>The number of times an element occurs in an XML file.</li> <li>If cardinality is not defined, then one and only one instance should be in</li> <li>minOccurs=1 and maxOccurs=1</li> <li>Where a data element is not used, then the associated attribute(s) are n used.</li> </ul>			
Namespace/Prefix	<ul> <li>A collection of elements and attribute names identified by a Uniform Resource Identifier (URI) reference in an XML file.</li> <li>Namespace differentiates between different sources and identifiers with the same name.</li> </ul>		
Datatype	<ul> <li>The datatype or classification of a data element value, such as numeric, string, Boolean, or time.</li> <li>XML supports custom datatypes and inheritance.</li> </ul>		
Encoding	The UTF-8 encoding standard must be used in all XML reports.		

Items	Description
Requirement(s):	The requirement field for each data element and its attribute indicates whether the element must be included in the XML file.
Validation	The data element is required for schema validation and must be included.
Mandatory	The data element is not used for schema validation but is required.
Optional	<ul> <li>The data element is not required but may be provided if available.</li> <li>The use of optional field may be subject to an intergovernmental agreement, consult your applicable tax authority.</li> </ul>
Description	The definitions for the message set or element.

Table 3: Element Description

#### 1.6.1 | Character Restrictions

All FATCA XML documents (Form 8966 data, metadata, etc.), prohibit certain characters contained in the elements and will cause a file rejection and error notification. XML files will be rejected if it contains any of the special characters without encoding for security threat prevention and XML parser syntax errors.

#### XML Character Restrictions

If a file contains prohibited characters, it will be rejected and you will receive a failed schema error notification (XML not well-formed) with additional instructions. The characters are not allowed by XML syntax rules and must be replaced by entity references, if applicable, as listed below:

Characters	Character Description	Entity Reference	
&	Ampersand	&	
<	Less than	<	

#### **SQL** Injection Validation

If a file contains prohibited characters, it will be rejected and you will receive a failed threat detection error notification with additional instructions. The characters must be replaced by entity references, if applicable, as listed below.

Characters	Character Description	Entity Reference
"	Apostrophe	'
	Double dash	None
#	Hash	None

#### **Optional Entity Reference Usage**

If a file contains prohibited characters, it will not cause a file rejection or error notification. The characters are not illegal but should be replaced by entity references to conform to XML schema best practices.

Characters	Character Description	Entity Reference
"	Quotation mark	"
>	Greater than	>

#### 1.7 | How to Use Guide

The FATCA Metadata XML Schema v1.0 supports FATCA reporting and expands each data element to describe business rules. The schema definition files take precedence over any information presented within the guide. The FATCA XML schema definition files or .xsd files may be downloaded from the **IDES** site on IRS.gov.

The schema was tested using XMLSpy and the diagrams shown illustrate the message structure and hierarchy relationship of elements. The schema and sample files can be viewed with an XML tool, such as XML Notepad. The table below describes the XMLSpy legend to interpret the diagrams. If you are using a different XML tool, the icons and images may vary.

Schema Icon	Description
- <sup>=</sup> Msgld	Box with full-line is a <b>required</b> report element
InitgPty 🗎	Box with dotted line is an <b>optional</b> report element
	The child elements must appear in the sequence mentioned
	Only one of the possible child elements may be present

Figure 2: Schema Legend

#### FATCA | XML Metadata Schema

# 2 FATCAIDESSenderFileMetadata



Figure 3: FATCA IDES Metadata Overview

The file name for the FATCA XML metadata file is [SenderGIIN]\_Metadata.xml. See Section 1.4 Sender Metadata File for more information. The values are summarized in Table 3.

Ref	Elements	Datatype	Cardinality	Requirement	Description
2.0	FATCAIDESSender FileMetadata	N/A	1	Mandatory	
2.1	FATCAEntitySenderId	String	1	Mandatory	Identifies GIIN of sender submitting data
2.2	FATCAEntityReceiverId	String	1	Mandatory	Identifies GIIN of recipient receiving data
2.3	FATCAEntCommunication TypeCd	String	1	Mandatory	Indicates the type of transmission: FATCA Report or Notification
2.4	SenderFileId	String	1	Mandatory	References file name created by sender
2.5	FileCreateTs	Timestamp With Milliseconds Type	1	Mandatory	References timestamp for the transmission payload
2.6	TaxYear	gYear	1	Mandatory	Indicates the tax year for FATCA reporting
2.7	FileRevisionInd	Boolean	1	Mandatory	Indicates if the FATCA report is a revised transmission
2.8	OriginalIDES TransmissionId	String	01	Optional	References for the original IDES Transmission ID
2.9	SenderContactEmail AddressTxt	String	01	Optional	Sender email address

Table 4: IDES Metadata Schema Overview provides a summary for each element

### 2.1 | FATCAEntitySenderId

FATCAEntitySenderId
N/A
19-character GIIN format
N/A
String
Mandatory
<ul> <li>Element contains the sender FATCA Global Intermediary Identifying Number (GIIN). The GIIN is a 19-character alphanumeric identifier entered with appropriate punctuation (period or decimal).</li> <li>If the sender is a Reporting FFI or Sponsoring Entity, use the approved GIIN. Example: 98Q96B.00000.LE.ISO</li> <li>If the sender is an HCTA, use the pre-defined HCTA GIIN format Example: 000000.00000.TA.ISO. See Section 1.4 Sender Metadata for more information about the HCTA GIIN format.</li> <li>If the sender is an agent or other service provider, other than a Sponsoring Entity, element contains the FI GIIN that maintains the reported financial account or makes the reported payment (reporting (reporting FFI/FI).</li> <li>Do not enter the GIIN of the agent or other service provider.</li> </ul>

### 2.2 | FATCAEntityReceiverId

Element	FATCAEntityReceiverId
Attribute(s)	N/A
Size/Pattern/ Prefix	19- character GIIN format
Namespace	N/A
Datatype	String
Requirement	Mandatory
Description:	<ul> <li>Element contains the recipient entity ID in GIIN format with punctuation (period or decimal).</li> <li>If the direct recipient is a tax authority or HCTA, use the HCTA GIIN. Example: 000000.00000.TA.ISO</li> <li>If the direct recipient is the U.S. tax authority, use HCTA GIIN for the US. Example:</li> </ul>
	000000.00000.TA.840

### 2.3 | FATCAEntCommunicationTypeCd

Element	FATCAEntCommunicationTypeCd
Attribute(s)	N/A
Size/Pattern	RPT or NTF
Namespace/ Prefix	N/A
Datatype	FATCAEntCommunicationTypeCdType
Requirement	Mandatory
Description:	<ul> <li>Element specifies the type of message transmitted. The only allowable entries are the entity communication type codes.</li> <li>Enumeration values:</li> <li>RPT - FATCA_REPORT</li> <li>NTF - FATCA_NOTIFICATION</li> </ul>

### 2.4 | SenderFileId

Element	SenderFileId
Attribute(s)	N/A
Size	Maximum length of 200 characters
Namespace/ Prefix	N/A
Datatype	String
Requirement	Mandatory
Description:	<ul> <li>Element is a free text field to capture the file name or ID created by the sender. The element helps both the sender and receiver to track and monitor a specific message.</li> <li>This element cannot be left blank.</li> </ul>

#### 2.5 | FileCreateTs

Element	FileCreateTs
Attribute(s)	N/A
Size/Pattern	YYYY-MM-DDTHH:MM:SS.msTZD
Namespace/ Prefix	N/A
Datatype	TimestampWithMillisecondsType
Requirement	Mandatory
Description:	<ul> <li>Element identifies the timestamp for the transmission payload created by the sender application.</li> <li>TZD represents the time zone. If Coordinated Universal Time (UTC), Z should be used. Recommend UTC.</li> <li>If local time, then the correct time zone should be included, such as -05:00</li> </ul>
Example:	2014-11-30T00:00:00Z 2014-11-30T00:00:00.123Z
	2014-11-30T00:00:00.1234-05:00

#### 2.6 | TaxYear

Element	TaxYear
Attribute(s)	N/A
Size/Pattern	YYYY
Namespace/ Prefix	N/A
Datatype	gYear
Requirement	Mandatory
Description:	Element identifies the FATCA report tax year of the message YYYY format.
Example	Reporting information for the accounts or payments made in the tax year 2014, enter "2014."

### 2.7 | FileRevisionInd

Element	FileRevisionInd
Attribute(s)	N/A
Size/Pattern	true or false
Namespace/ Prefix	N/A
Datatype	Boolean
Requirement	Mandatory
Description:	Element is a Boolean field to indicate if the file is a revised message. The only allowable values are "true" or "false."

### 2.8 | OriginalIDESTransmissionId

Element	OriginalIDESTransmissionId
Attribute(s)	N/A
Size/Pattern	32 characters-length unique ID
Namespace/ Prefix	N/A
Datatype	String
Requirement	Optional
Description:	Element is a free text field to reference the unique original IDES transmission ID. The identifier helps both the sender and receiver to track and monitor messages. This field should be populated when the transmission archive is revised to correct data previously transmitted.

#### 2.9 | SenderContactEmailAddressTxt

Element	SenderContactEmailAddressTxt
Attribute(s)	N/A
Size/Pattern	Maximum length 200 characters
Namespace/ Prefix	N/A
Datatype	String
Requirement	Optional
Description:	Element is a free text field to identify the sender email address.

3	Appendix A: FATCA XML Metadata Sample
1	xml version="1.0" encoding="UTF-8"?
2	Sample XML file generated by XMLSpy v2014 rel. 2 (http://www.altova.com)
3	<pre>KFATCAIDESSenderFileMetadata xmlns="urn:fatca:idessenderfilemetadata" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" &gt;</pre>
4	<pre><fatcrentitysenderid>00000.00000.TA.124</fatcrentitysenderid></pre>
5	<pre><fatcrentityreceiverid>000000.00000.TA.840</fatcrentityreceiverid></pre>
6	<pre><fatcrentcommunicationtypecd>NTF</fatcrentcommunicationtypecd></pre>
7	<pre><senderfileid>000000.00000.TA.124_Payload.xml</senderfileid></pre>
8	<pre><filecreatets>2014-11-30T00:00:00Z</filecreatets></pre>
9	<taxyear>2014</taxyear>
10	<pre><filerevisionind>true</filerevisionind></pre>
11	<pre><originalidestransmissionid>c19d4f557daf461fbb6d601b74c821a2</originalidestransmissionid></pre>
12	<pre><sendercontactemailaddresstxt></sendercontactemailaddresstxt></pre>
13	
14	

#### Figure 4: IDES Metadata Sample

#### Figure 4 Sample Details:

- Revised file where the original transmission ID was included
- HCTA Sender: Canada
- HCTA Receiver: U.S.
- Tax reporting year: 2014
- Report: FATCA Report