**Diagrams, Entities, Attributes**

**Table of Contents**

**'Table of Contents' needs to be generated! For instance, if this is Microsoft Word then you need to select this text, bring up the context menu - right mouse click, and choose 'Update Field'.**

| Main Subject Area/Display1 |
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| **Name** | CbcrProp |
| **Definition** | Additional properties for the CBCR message. These properties may be country specifiic |

| **Attribute(s) of "CbcrProp" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieDocId |  |
| name |  |
| value |  |

|  |  |
| --- | --- |
| **Name** | CbcrTable1 |
| **Definition** | Represent a record in Country by country report, Table 1 |

| **Attribute(s) of "CbcrTable1" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieDocId |  |
| taxJurisdiction |  |
| revenueUnrelatedParty |  |
| revenueRelatedParty |  |
| revenueTotal |  |
| plBeforeIncomeTax |  |
| incomeTaxPaid |  |
| incomeTaxAccrued |  |
| statedCapital |  |
| accumulatedEarnings |  |
| numberOfEmployees |  |
| tangibleAssetsNonCash |  |

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| --- | --- |
| **Name** | CbcrTable2 |
| **Definition** | Represent a record in Country by country report, Table 2 |

| **Attribute(s) of "CbcrTable2" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieDocId |  |
| taxJurisdiction |  |
| entityCode |  |
| taxJurisOfIncorporation |  |
| mainBusRAndD |  |
| mainBusHoldingIp |  |
| mainBusPurchasing |  |
| mainBusSaleMktDistr |  |
| mainBusAdminMgmtSupportSvc |  |
| mainBusProvSvcToUnrelatedParties |  |
| mainBusInternalGroupFinance |  |
| mainBusRegulatedFinSvc |  |
| mainBusInsurance |  |
| mainBusHoldingEquityInstruments |  |
| mainBusDormant |  |
| mainBusOther |  |
| mainBusOtherNotes | This is not among the standard form spec. But if Other is checked, detailes are supposed specified in Additional Information. Since such info is specific to each entity, the field is also put here |

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| **Name** | CbcrTable3 |
| **Definition** | Represent a record in Country by country report, Table 3 |

| **Attribute(s) of "CbcrTable3" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieDocId |  |
| countryCode | The jurisdiction that this additional information is related to. |
| summaryRef | Indicates which specific fields that this particular additional info is related to.  CBC601 - Revenue - Unrelated  CBC602 - Revenue - Related  CBC603 - Revenue - Total  CBC604 - Profit or Loss  CBC605 - Tax Paid  CBC606 - Tax Accrued  CBC607 - Capital  CBC608 - Earnings  CBC609 - Number of Employees  CBC610 - Assets  Default if CBC601. There is no code for all fields, so taking a short cut to form part of primary key. |
| mneGroupName |  |
| fiscalYearConcerned |  |
| additionalInfo |  |

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| **Name** | taxEntity |
| **Definition** | The entity info relevant to the tax doc. |

| **Attribute(s) of "taxEntity" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieDocId |  |
| entityCode | Often the same as Tax ID Number |
| name | Full leval code for the entity.  If it is a permanent establisment, it should be followed by "(P.E.)" |
| description |  |
| taxIdNum | Tax ID number, often assigned by tax authority.  If no TIN, the enter "NOTIN" |
| incorpCountryCode | Where the entity is incorporated. ISO Alpha-2 country code. |
| otherEntityInfo | Any CBC infor that are related to the entity.  For the info that is not specific to an entity but for the group as a whole, use Additional Info |
| resCountryCode | Tax jurisdiction of the entity. ISO Alpha-2. |
| idNum | Other id number (than TIN) for the entity, such as regisntration number. |
| isPermExtabliment | Indicates whether the entity is a permanent establishment.  Default 0, i.e., No |
| addrLegalType | The legal address type for the entity.  OECD301 - residentialOrBusiness  OECD302 - residential  OECD303 - business  OECD303 - registeredOffice  OECD305 - unspecified  Default to OECD305 |
| addrCountryCode | ISO Alpha-2 country code |
| addrFreeText | An address can be in free text format or fix format (where each field is separated and stored individually). This field stores the whole address as a long text |
| addrStreet |  |
| addrBuildingIdentifier |  |
| addrSuiteIdentifier |  |
| addrFloorIdentifier |  |
| addrPOB |  |
| addrPostCode |  |
| addrCity |  |
| addrCountrySubentity |  |

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| **Name** | TieApp |
| **Definition** | Identifies a running instance of a TIE App server.  Each instancce is registered to CTS server, so that not any arbitrary app can call CTS.  It is envisioned that, for one tax authority, there is at most one running logical) instance to all users of that country to use. Failover servers may be provided for high availability purposes.  For a running instance, there would normally only be one record, since there is one TIE DB for the server. However, for the intial POC effort, another server may be running as the counterparty of the commnunication, and so there can be two records. |

| **Attribute(s) of "TieApp" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieAppId |  |
| name |  |
| code |  |
| description |  |
| ctsId | The id that was assined to the TIE app for a country's running instance.  This is used to authenticate the server instance to CTS |
| ctsPwd | The passward used to authenticate to CTS server.  This assuems CTS will use password to authenticate the server. CTS may choose to issue digital centificate to each registered server, in which case the pwassword would not be necessary. |
| taxAuthorityCode | Identifies the tax authroity of that a server is running for. |
| countryCode | Identifies the country of the tax authority. Using ISO Alpha-3 country codes. |
| isRunning | Indicates whether the server is running, 1 for yes, 0 for no. |

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| **Name** | TieDoc |
| **Definition** | Represents a tax document that is to be exchanged through the TIE APP. |

| **Attribute(s) of "TieDoc" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieDocId |  |
| name |  |
| code |  |
| description |  |
| tieDocTypeId |  |
| tieMsgId |  |
| reportingEntityCode | The identifying number, or IN, for the holding entity filing the doc. Reporint entity.  E.g. this could be domenstic TIN or IN |
| currencyCode | The currency for the whole CBC report.  ISO currency code.  Default is USD |
| resCountryCode | The code for the country that this doc is prepared for. |
| sourceDoc | THe source document where all info about this doc is from, e.g., by importing the source doc.  This is the content of the imported file, so that the integrity of the stored data fields are maintained. |
| accountingStandard | The accounting standard that the data of this report was based on. For example, US GAAP |

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| **Name** | TieDocType |
| **Definition** | Represents the type of the message.  For the initial target, only CBCR message is supported |

| **Attribute(s) of "TieDocType" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieDocTypeId |  |
| name |  |
| code |  |
| description |  |

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| **Name** | TieMsg |
| **Definition** | Represents a type tax message to be exchanged through the TIE App.  There care be several types of tax messages, e.g, one for CBCR, one for CRS.  The common data fields are in this table. Any type-specific message data will be in separate specific tables.  For the initial effort, we set that one message can attach one tax doc |

| **Attribute(s) of "TieMsg" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieMsgId |  |
| subject |  |
| code |  |
| description |  |
| notes | The user entered notes about the message when sending.  This is separate from the description, which is to describe the tax message itself. This field is meant to contain any texts attechned to the message being sent, much like the body of an email. |
| senderId | Identify the sender of the this message. This could be a user from external, e.g., from another country. |
| ownerId | Identifies the sender of the message. |
| tieMsgStateId |  |
| sendingEntityIdNum | The identifying number, or IN, for the sending entity filing the doc. Used in the case when company sending to government.  E.g. this could be domenstic TIN or IN |
| transmittingCountry | Identifies the jurisdiction of competent authority transmitting the message.  Using country code, ISO Alpha-2 |
| receivingCountries | Identifies the jurisdictions of competent authority receiving the message.  Using country code, ISO Alpha-2 |
| messageType | Identifies the type o fmessage  per OECD XML spec:  "CbC" for CbCR |
| lauguage | For CbC msg, the language of the Additional Info element.  ISO 639 - Part 1 (ISO 639-1:2002) |
| warning | For CbC, free text field allowing specific cautionary instgructions. |
| contact | Free text on message sender's contact information. |
| messageRefId | Unique ID, created by the sender, for the message being sent.  For CbC, the ID is of the form:  CC-Year-IdBySendingJurisdiction  Where,  CC - country code of the jurisdiction  Year - the year that the CbC info is related to  IdBySendingJurisdiction - message code of this record. |
| messageTypeIndic | Type of the message, whether the data is new or correction.  Possible values are:  For CbC:  CBC401 - The message is new information  CBC402 - The message oontains corrections for previously sent information. |
| corrMessageRefIds | Not used for CbC reporting |
| reportingPeriod | The 12 month reporting period that this message is related to. This field contains the last day of the period in the form YYYY-MM-DD..  IIf the period is not 12 months, it should be indicated in the warning field of this message. |
| timestamp | The time when the message is compiled.  YYYY-MM-DDTHH:MM:SS  For example, 2018-02-15T14:37:40 |
| rawMsg | The message that is being sent or received in raw string format. This is often the XML string that contains all the info being sent out. |

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| **Name** | TieMsgReceiver |
| **Definition** |  |

| **Attribute(s) of "TieMsgReceiver" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieMsgId | The message to be sent to receiver |
| senderCode | CTS user code for the sender |
| receiverCode | CTS user code for the receiver |
| tieMsgTrackingStatusId |  |
| trackingNote |  |
| receivingCountry | Identifies the jurisdiction of competent authority receiving the message.  Using country code, ISO Alpha-2 |

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| **Name** | TieMsgState |
| **Definition** | Indicates the life cycle of the life that the message is in:  Created - The message is created in the system to be sent.  Sent - The message is being sent to all recipient  DeliveredToAll - The message has delivered to all recipient  Deleted - The message is marked as deleted.  Archived - The message is ready to be archived. Once archived, it cannot be deleted.  Error: The message encountered some error on route to receiver  Received - The message has arrived at inbox  Viewed - The message has been viewed  Archived - The message is ready to be archived |

| **Attribute(s) of "TieMsgState" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieMsgStateId |  |
| name |  |
| code |  |
| description |  |
| countryCodeA2 | The country that this server instance is for. ISO Alpha-2 country code. |

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| **Name** | TieMsgTrackingStateus |
| **Definition** | Tracking a specific delivery of TIE message from a sender to a receiver.  ReadyToDeliver - The message is ready to be delivered  InRoute - The message is going through the CTS on its route to the receiver  Delivered- The message has been delivered to the receiviing app.  Returned - The message is returned by CTS without delivery  This is only outbound messages |

| **Attribute(s) of "TieMsgTrackingStateus" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieMsgTrackingStatusId |  |
| name |  |
| code |  |
| description |  |

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| **Name** | TieOpLog |
| **Definition** | Each records an event that a user did not something using the TIE App system:  When - time stamp, and its year, month, date, hour, minute, second  Who - use id, user CTS id,  Did what - Actions take by the user: Server start, stop  User login, logout  Record CRUD  Msg create, send, receive, view, delete  To which Msg - Msg Id, fieldNames, beforeImg, afterImg,  Doc Id |

| **Attribute(s) of "TieOpLog" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| timeStamp |  |
| timeYear |  |
| timeMonth |  |
| timeDay |  |
| timeHour |  |
| timeMinute |  |
| timeSecond |  |
| userId |  |
| userCode |  |
| userName |  |
| userCtsId |  |
| actionTypeId |  |
| actionName |  |
| actionCode |  |
| actionNotes | Recods addition information about the action. E.g., the SQL statement when accessing database. |
| msgId |  |
| msgSubject |  |
| msgCode |  |
| docId |  |
| docName |  |
| docCode |  |
| fieldNames | The list of names affected by this event, if applicable |
| fieldsBefore | The value of fields affected before the event |
| fieldsAfter | The value of fields affected after the event |

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| --- | --- |
| **Name** | TieOpLogActionType |
| **Definition** | Represents a type of action on the TIE App.  SystemStart  SystemStop  UserLogIn  UserLogOut  RecordCreate  RecordDelete  RecordUpdate  RecordRead  MsgCreate  MsgSend  MsgReceive  MsgRead  MsgDelete |

| **Attribute(s) of "TieOpLogActionType" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieOpLogActionTypeId |  |
| name |  |
| code |  |
| description |  |

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| **Name** | TieUser |
| **Definition** | Represents a user of this TieApp instance.  This user may also be a CTS user, who may be authroitzed to perform centain CTS functionalities, such as to send and receive tax information. |

| **Attribute(s) of "TieUser" Entity** | |
| --- | --- |
| **Name** | **Definition** |
| tieUserId |  |
| name |  |
| code | user name for log in |
| password | The password for the user to log into TIE app, not CTS. |
| description |  |
| email |  |
| ctsUserId | The CTS user id for the same user.  This field will be null for those who are not a CTS user. They can only perform local TIE App functionalities, and not CTS functionalities. |
| ctsUserPwd | The password that the user to log into CTS |
| ctsUserCertificate | The digital certificate for the user. The certificate is recognized by CTS server. |
| tieAppId | Identifies which TIE App server that this user belongs to.  Effectively, all user of one country would be located in the same TIE DB. |
| isExternal | Indicates that the user is external to the app. For example, the user may be someone sending a tax message into this app.  Special logic for external user:  1. code is the same as ctsUserId |