Foreign Input Identifiers and Generating TID Values

4/12/22

CAT NMS Plan Requirements

▸ For purposes of SEC Rule 613, 'Customer-ID' means, 'with respect to a customer, a code that uniquely identifies such customer for purposes of providing data to the central repository.'

  --Appendix C of the CAT NMS Plan

▸ The Plan Processor must maintain information of sufficient detail to uniquely and consistently identify each Customer across all CAT Reporters, and associated accounts from each CAT Reporter.

  --Appendix C of the CAT NMS Plan

Input Identifiers

- Input Identifiers is a generic term for the types of identifiers used to identify unique Customer Records. These identifiers include:
  - Social Security Number (SSN)
  - Individual Taxpayer Identification Number (ITIN)
  - Employer Identification Number (EIN)
  - Foreign Identifiers (FOREIGN)
- If an SSN, ITIN, or EIN is available for the Customer, it must always be used as the Input Identifier.
- Input Identifiers are always translated to Transformed Identifier (TID) values.
-- Section 2.2.5 of the Full CAIS Technical Specifications

Transformed Identifier (TID)

The Transformed Identifier (TID) is a hashed version of the Input Identifier, submitted by the CAT Reporter to CAT in place of the Input Identifier, in accordance with the exemptive relief granted by the SEC on March 17, 2020.

--Section 2.2.6 of the Full CAIS Technical Specifications

Section 3.4 (Translation of Input Identifiers to TID Values) states:

➢ Input Identifiers must be applied to a SHA-256 hashing algorithm. The 32 bytes output from the SHA-256 hashing algorithm must be then represented as a 64 byte hexadecimal value.

➢ This resulting output is the TID value that must be reported to CAT CAIS.

➢ It is the responsibility of the CAT Reporter to translate the Input Identifier to a TID.

CAT Customer ID

‣ The Customer ID, also known as CAT Customer ID or CCID, is a globally unique identifier generated for each unique TID value generated from a well-formatted and valid Input Identifier, in a way that is not reversible to the TID or textual Input Identifier value.

-- Section 2.2.7 of the Full CAIS Technical Specifications

Current Formatting Requirements for US–assigned Input Identifiers

US-assigned Input Identifiers follow a consistent formatting methodology.

- Input Identifiers used to generate TID values must be input in valid format (Including hyphens).
  - 999-99-9999 for SSN or ITIN.
  - 99-9999999 for EIN.
- For SSN & ITIN, range validations are also applied.
  - No values having an Area Number (first three digits) of 000 nor 666.
  - No values having a Group Number (middle two digits) of 00.
  - No values having a Serial Number (last four digits) of 0000.
  - No values all of the same digit such as 000-00-0000 111-11-1111, 333-33-3333, 666-66-6666, 999-99-9999, nor 123-45-6789.
- EIN range validations were removed in Industry Test as of 3/28/22.
- Only TIDs resulting from properly-formatted SSN, ITIN, or EIN will be accepted into CAIS.

Foreign Input Identifiers

▶ The following hierarchy must be followed if more than one identifier type is available for a foreign CAT Customer:

1. NATIONALID – National Registration or Tax Identifier, if the CAT Reporter knows the identifier was issued by a national-level government body or agency, or when the CAT Reporter cannot distinguish if the issuer is a national-level government body or agency.

2. LEI – Legal Entity Identifier.

3. PASSPORT – Country of Issuance and Passport Number.

4. PERMANENT – Permanent Resident Identifier.

5. DRIVERLICENSE – Driver's License identifier.

6. OTHGOVT – Other Government-Issued Identifier, if the CAT Reporter knows the identifier was issued by a non-national level government body or agency, such as a regional agency. Must not be used if one of the other allowable values apply.

--Section 2.2.5 of the Full CAIS Technical Specifications

Foreign Input Identifier & Validations

➤ Format validation will not occur for 'FOREIGN' Input Identifiers

- ◦ Hundreds of different issuing authorities for the same types of documentation with variations in formatting requirements, differences in between Natural Persons and Legal Entities, etc.

- ◦ Introduction of 'DRIVERLICENSE' and 'OTHGOVT' *foreignTIDType* values allows for the use of the same documentation-type from different issuing-authorities within the same *countryCode* (e.g., Driver Licenses issued by separate non-national level governmental agencies).

Additional Background on Foreign Input Identifiers

➢ While the Industry Member's books and records may contain an image of the identification (e.g., scanned version of identification, photocopy), the method in which the Industry Member transcribed/input the Foreign Input Identifier (e.g., Driver License Number) into firm systems may vary from the way in which the identification appears in its original form.

  ◦ e.g., A Driver License for D6101-50707-51120 manually inputted into general customer and account record as D61015070751120.

➢ Different processes in transcribing/inputting and systematizing this information between Industry Members and even variation between employees at the same firm inputting the data into systems.

Methodology for Hashing Foreign Input Identifiers

➤ Prior to applying the SHA-256 hashing algorithm to the Foreign Input Identifier value, Industry Members must

- Remove spaces (leading, trailing, and kerning), hyphens, other punctuation (e.g., colons, semi-colons) so that only the numeric or alphanumeric values are used as the Input Identifier value.

- Do not affix additional values that do not appear on the documentation (e.g., the *countryCode*) to the Input Identifier value, as the *foreignTIDType* and *foreignTIDCountryCd* are separately reported in the TIDs File.

- Following the above methodology will adhere to Plan requirements for uniquely and consistently identifying each Customer across all CAT Reporters with respect to Foreign Input Identifiers.

Examples of Hashing Foreign Input Identifiers into TID Values

➤ **Identification Number (As it appears on ID) :**   D6101-50707-51120
  - Value used for CAIS Input Identifier (with no hyphens) :   D61015070751120
  - Hash of D61015070751120 :
    1eb652fa07abe5ab142704b0f61d78e8e47f2a880cbd2cd0ab5da17ecd63bf44

➤ **Identification Number (As it appears on ID) :**   13411-320
  - Value used for CAIS Input Identifier (with no hyphens) :   13411320
  - Hash of 13411320 :
    fb28e43e638f7afb5b15ab2f78cb2248ca2f43a84ecfe3d4c423a19e91e669e9

➤ **Identification Number (As it appears on ID) :**   123:456
  - Value used for CAIS Input Identifier (with colon removed) :   123456
  - Hash of 123456:
    8d969eef6ecad3c29a3a629280e686cf0c3f5d5a86aff3ca12020c923adc6c92

➤ **Identification Number (As it appears on ID) :**   A 987 – 654 – 321 3
  - Value used for CAIS Input Identifier (with no hyphens or kerning) :   A9876543213
  - Hash of A9876543213 :
    2d279f1503250c6d5640f36245d94d83adfa47c8ae6852f3943188b39b92ee1b

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