

## DERIVATIVES SERVICE BUREAU (DSB) LTD

Credit : Swap : Municipal

UPI Product Definition

Version 3

Date	Status	Version	Revision Details
11 Aug 2022	Draft	1	Initial Version
02 Feb 2023	Draft	2	<ul style="list-style-type: none"> <li>Update example values in the Request and Record templates layout</li> <li>Insert Underlier Name attribute and Derivation rules</li> </ul>
29 Aug 2023	Draft	3	<ul style="list-style-type: none"> <li>Remove “Classified as Confidential” in the Footer section.</li> <li>Remove “RIC” as Alternate Underlier ID Source.</li> <li>Update Associated Documentation to include Best Practice Guidelines and FAQs.</li> <li>Update Best Practice Guidelines to include the link to Best Practice Guidelines and FAQs</li> </ul>

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# I. Introduction

This document is designed to act as a manual for users to interpret the Product Definitions in the DSB UPI Service.

This document provides the user with the detailed description of the UPI Product Definition content such as attribute enumerations, validation, normalization, and derivation where applicable.

## I.1 Associated Documentation

The reference documents below contain values and information maintained by the DSB for consistency and ease of access.

These documents are made available on the ANNA DSB website (Product Definitions page):

Title	Description	Location
<b>Enumerations Document</b>	Lists all fixed values used for a product	Enumerations section
<b>Product Definition Data Dictionary</b>	Defines attributes in the Request and Record templates; and from which they are referenced on	Other Documents section
<b>Product Definition Validations and Normalizations Document</b>	Specifies details on validation and normalization rules	
<b>UPI Underlier Input Method</b>	Defines the structure for the input of the underlier following the rules that allow users to identify the Asset Class, Underlying Structure, Underlying Type, and Underlying ID Source.	
<b>Best Practice Guidelines and FAQs</b>	Lists answers to queries raised by users and provides guidance on the use of the templates	
<b>GitHub Environment Section</b>	ANNA DSB Github Environment where the JSON templates for each product is found	

## 2. Product Taxonomy

### 2.1 CFI Taxonomy

Source: [ISO 10962](#) (CFI Code) – Third edition 2015-07-15

Attr #	Title	Values	Name	Description
	<b>Instrument (Category)</b>	<b>S</b>	Swap	
	<b>Asset Class (Group)</b>	<b>C</b>	Credit	
<b>Attr #1</b>	<b>Underlying Assets</b>	<b>U</b>	Single Name	The underlying risk is a single reference entity or reference obligation
<b>Attr #2</b>	<b>Return or payout trigger</b>	<b>C</b>	Credit Default	Credit Default
<b>Attr #3</b>	<b>Underlying Issuer Type</b>	<b>L</b>	Local	A municipality or local government authority
<b>Attr #4</b>	<b>Delivery Type</b>	<b>C</b>	Cash	Cash
		<b>P</b>	Physical	Physical
		<b>A</b>	Auction	An independently administered synthetic auction process on a set of defined deliverable obligations that sets a reference final price that can be used to facilitate cash settlement of all covered transactions following a credit event

### 2.2 ISDA Taxonomy

The table below is based on the products identified as part of the [ISDA 2.0 taxonomy](#).

Asset Class	Base Product	Sub-Product	Transaction Type	DSB Product Definition Name
Credit	Single Name	Muni	<i>Various entries</i>	Municipal

### 3. Request Template

The Request Template describes the input message received by the UPI service.

Users can find the detailed description of this template in the Credit spreadsheet that contains the layout of all templates. This can be found in the Credit section of the Product Definitions page on the ANNA DSB website.

Change details of the template can be found on the appropriate Github page.

Template name	Template details	Release
Request.Credit.Swap.Municipal.UPI.json	Initial version	Initial

#### 3.1 Underlier Input Method

In order to support products that are based on more than one type of underlier, the Underlier Type selection allows users to choose the type of underlier for the product.

Title	Description
<b>Select Underlier Type</b>	User is able to select a single required Underlier Type from the available options. <ul style="list-style-type: none"><li>• Fixed Income Security</li><li>• Legal Entity</li></ul>
<b>Select Underlier ID Source</b>	User is able to select a single required Underlier ID Source from the available options based on the selected Underlier Type. <ul style="list-style-type: none"><li>• Fixed Income Security [ISIN, FIGI, CUSIP, SEDOL]</li><li>• Legal Entity [LEI]</li></ul>
<b>Input Underlier ID</b>	User enters a valid Underlier ID based on the selected Underlier ID Source.

#### 3.2 Validation Rules

For non-specific product validation rules, please refer to UPI Product Definition Validations and Normalizations Document can be found in the Other Documents section on the DSB website.

## 4. Record Template

The Record Template describes the record returned by the UPI service.

Users can find the detailed description of this template in the Credit spreadsheet that contains the layout of all templates. This can be found in the Credit section of the Product Definitions page on the ANNA DSB website.

Change details of the template can be found on the appropriate Github page.

Version	Template name	Template details	Release
V.1	Credit.Swap.Municipal.UPI.V1.json	Initial version	Initial

### 4.1 Normalization Rules

For non-specific product normalization rules, please refer to UPI Product Definition Validations and Normalizations Document can be found in the Other Documents section on the DSB website.

### 4.2 Derivation Rules

This section describes the derivations of product attributes highlighted in the Record Template.

#### 4.2.1 Classification Type

Attribute	Classification Type		
<b>Structure</b>	Instrument Type + Asset Class + Underlying Asset Type + Return or Payout Trigger + Underlying Issuer Type + Delivery Type		
<b>Example</b>	SCUCLA		
<b>Source</b>	<a href="#">ISO 10962</a> (CFI) – Third edition 2015-07-15		
Source Attribute	Source Value	Derivation Method	Result
<b>Instrument Type</b>	Swap	Fixed Mapping	S
<b>Asset Class</b>	Credit	Fixed Mapping	C
<b>Underlying Asset Type</b>	Single Name	Fixed Mapping	U
<b>Return or Payout Trigger</b>	Credit Default	Fixed Mapping	C
<b>Underlying Issuer Type</b>	Local	Fixed Mapping	L
<b>Delivery Type</b>	CASH	Mapped to =>	C
	PHYS	Mapped to =>	P

	OPTL	Mapped to =>	A
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## 4.2.2 Short Name

Attribute	Short Name		
<b>Structure</b>	"NA" + "/" + Instrument Type + Underlying Issuer Type + Underlying Asset Type + Debt Seniority		
<b>Example</b>	NA/CDS Mun SN Sr		
<b>Source</b>	<a href="#">ISO 18774</a> (Financial Instrument Short Name) - First edition 2015-11		
Source Attribute	Source Value	Derivation Method	Result
<b>Issuer Name</b>	None	Fixed Value	NA/
<b>Instrument Type</b>	Swap	Fixed Abbreviation	CDS
<b>Underlying Issuer Type</b>	Local	Fixed Abbreviation	Mun
<b>Underlying Asset Type</b>	Single Name	Fixed Abbreviation	SN
<b>Debt Seniority</b>	SNDB	Mapped to =>	Sr
	MZZD	Mapped to =>	Mz
	SBOD	Mapped to =>	Sub
	JUND	Mapped to =>	Jr



### 4.2.3 Underlier Name

Attribute	Underlier Name			
Underlying Asset	Underlier Name Source	Underlier Name Source Attribute		Underlier Name
Underlying ID with Underlying ID Source [ISIN]	ISIN Reference Data	longName of Underlying Instrument ISIN	ISIN is found in ISIN Reference Data.	State of California
			ISIN is found in ISIN Reference Data, but its description is missing.	No name available
			ISIN is not found in ISIN Reference Data.	No name obtainable
Underlying ID with Underlying ID Source [LEI]	LEI Reference Data	The name of the legal entity	LEI is found in LEI Reference Data.	State of Illinois
			LEI is found in LEI Reference Data, but its legal name is missing.	No name available
			LEI is not found in LEI Reference Data.	No name obtainable

### 4.2.4 CFI Delivery Type

Attribute	CFI Delivery Type		
Source Attribute	Source Value	Derivation Method	Result
Delivery Type	CASH	Mapped to =>	Cash
	PHYS	Mapped to =>	Physical
	OPTL	Mapped to =>	Auction

## 5. Supplementary Information

### 5.1 Best Practice Guidelines

Please refer to Best Practice Guidelines and FAQs that can be found in the Other Documents section on the DSB website.

### 5.2 Additional Comments

- The Contract Specification attribute only applies to Credit.Swap.Corporate; Credit.Swap.Municipal; Credit.Swap.Sovereign and Credit.Swap.Non\_Standard. It does not apply to Credit.Swap.Loan; Credit.Swap.ABS; Credit.Swap.Index; Credit.Swap.Index\_Tranche and Credit.Swap.Total\_Return\_Swap.
- For the input (Request) template, Contract Specification attribute will be marked as Mandatory in which case all new UPIs will be created with the said field. With this, both new OTC ISINs and UPIs will include the Contract Specification attribute.
- For the existing OTC ISINs without Contract Specification attribute, the system will support a UPI without Contract Specification as it will automatically create its legacy UPI making this field in the output (Record) template as Optional.

## 6. Appendix I – ISO 4914 Equivalence

This section describes the attributes as per the ISO 4914 Unique Product Identifier (UPI).

ISO 4914 Reference Data Elements		Request Attribute	Record Attribute
Asset Class	M	Asset Class	Asset Class
Instrument Type	M	Instrument Type	Instrument Type
Delivery Type	M	Delivery Type	Delivery Type
			CFI Delivery Type
Return, pricing method or payout trigger	M	Not Required	Return or Payout Trigger
Seniority	M	Debt Seniority	Debt Seniority
Standard Contract Specification	C	Contract Specification	Contract Specification
Underlier ID	C	Underlier ID	Instrument LEI
			Instrument ISIN
Underlier ID Source	C	Underlier ID Source	Not Required
Underlier Type	M	Not Required	Underlying Asset Type
Underlier sub-type (first level)	M	Not Required	Underlying Issuer Type
Underlying Credit Index Series*	C	Not Required	
Underlying Credit Index Version*	C	Not Required	

\*Underlying Credit Index Series/Version applies only to Underlying Credit Index [CRIDX]. For this product, the underlying is either a Legal Entity [LEI] or Fixed Income Security [ISIN, FIGI, CUSIP, SEDOL] and so these attributes are not required.

## 7. Appendix 2 - OTC ISIN-UPI Mapping

This section describes the mapping between the ISIN and UPI input attributes.

One Of	ISIN Input Attributes	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
	Asset Class	Direct Map	Asset Class	Credit	
	Instrument Type	Direct Map	Instrument Type	Swap	
	Use Case	Direct Map	Product	Municipal	
	Level	Set to "UPI"	Level	UPI	
	Notional Currency	No Mapping			
	Expiry Date	No Mapping			
A	Instrument ISIN	Set to "Fixed Income Security"	Underlier Type	Fixed Income Security	"One Of" Underlier Type
		Map to	Underlier ID	US13062PAV40	
		Set to "ISIN, FIGI, CUSIP, SEDOL"	Underlier ID Source	ISIN	
B	Instrument LEI	Set to "Legal Entity"	Underlier Type	Legal Entity	"One Of" Underlier Type
		Map to	Underlier ID	54930048FV8RWPR02D67	
		Set to "LEI"	Underlier ID Source	LEI	
	Debt Seniority	Direct Map	Debt Seniority	SNDB	
	Delivery Type	Direct Map	Delivery Type	OPTL	
	Price Multiplier	No Mapping			
	Contract Specification	Direct Map	Contract Specification	USMunicipalGeneralFund	