Derivatives Service Bureau (UPI)
CHANGE REQUEST FORM

Version	State	Author	Date	Description
1	Draft	M.A. Gariplan	19 April 2021	Initial Document
2	Draft	M.A. Gariplan	31 May 2021	Amended Record template (Underlier ID), Attribute Data Dictionary, ISO 4914 Equivalence
3	Draft	M.A. Gariplan	02 June 2021	Amended Validation (Underlier ID)
4	Draft	M.A. Gariplan	07 June 2021	Amended Validation (Underlier ID)
5	Draft	M.A. Gariplan	21 June 2021	Amended Validation (Underlier ID [ISIN])
6	Draft	M.A. Gariplan	14 Jul 2021	Amended Attributes, Template Layouts and GUI details (Underlier Input Method); Removed active hyperlinks in Data Dictionary; Amended References section with standard text; Removed Short Name comment in the Comment section

Title	Credit Swap Loan Template Definition		
Background	The following CRF presents a specification for the generation and retrieval of a Unique Product Identifier for the following product: • **Credit : Swap : Loan**	**DSB-ID**	**UPI-0187**
		Type	New Template
		Owner	M.A. Gariplan
		Version	6
		State	Draft

Terms of Reference	
Scope	• This CRF specifies the product definition required for the generation / retrieval of a UPI only. • This CRF covers both the input (Request) and output (Record) templates. • Support for local jurisdiction / alternate underlier identifier input is currently out of scope. • Support for CFI 2019 values is currently out of scope.
Requirements	• The product definition will conform to ISO 4914 (UPI). • Where possible, the product definition is to be based on the attributes, values and behaviour of the equivalent OTC ISIN. • The product definition will return a product short name (FISN). • All UPI records stored on the DSB RDL will include the ISO 10962 (CFI) code associated with the UPI along with an equivalent text value for all attributes that are included in the definition of the CFI.
Dependencies	• This specification is dependent on final sign-off of the ISO 4914 (UPI) specification. • This specification is dependent on PC approval for the use of the OTC ISIN definitions as a basis for the UPI. • This specification is dependent on PC approval for the inclusion of ISO 4914 (UPI) conditional attributes. • This specification is dependent on TAC Approval for the DSB approach to ISO 10962 (CFI:2019) migration. • This specification is dependent on the provision of a human-readable alias for the primary underlier for inclusion in the Short Name (FISN) and a human-readable alias for the Contract Specification. • The format of the Short Name is dependent upon the outcome of the ISO 18774 (FISN) systematic review.
Assumptions	• This specification assumes that, unless stated, all values and behaviours are based on those of the equivalent OTC ISIN product definition. • This specification assumes that no input values are to be defaulted by the system. • This specification is based on the current ISO 4914 (UPI) specification (CD) – including attributes that are not currently supported by the equivalent OTC ISIN. • This specification is based on the DSB's current equivalent OTC ISIN product definition. • This specification is based on the attributes and values defined in ISO 10962 (CFI:2015).

- In order to provide an example Short Name, this specification defines a format for this attribute that may not conform to the eventually agreed FISN format for the UPI. This specification assumes that the Short Name is defined using the same attributes (where available) as the OTC ISIN Short Name.
- Where possible, this specification derives GUI details from the ISO 4914 (UPI) specification for attributes that are not included in the current OTC ISIN product definition.
- The display information in the GUI for the existing attributes (and values) are taken from the OTC ISIN. If such information contains an "ISIN" in the description, replace the value into "UPI".
- The specification for UPI does not include expiry date as part of the attributes, hence "expired" status does not apply.
- The specification for underlying debt issuance tenor period/underlying debt issuance tenor period multiplier is subject for review and approval by CDIDE as part of ISO 4914 standard.

Request Template Layout

Section	Attribute	Format	Cat	Example Value	Validation / Derivation	Enum Source	Origin
Header Section	Asset Class	Set	M	Credit		CFI:2015 Char#2 (SC****)	ISIN
	Instrument Type	Set	M	Swap		CFI:2015 Char#1 (SC****)	ISIN
	Product	Set	M	Loan			ISIN
	Level	Set	M	UPI			NEW
Attribute Section	Underlier Type (One Of)	Enum	C	Fixed Income Security	[Fixed Income Security]	Internal	NEW
	Underlier ID Source	Enum	M	ISIN	[ISIN]	Internal	NEW
	Underlier ID	String	M	CNE000000FN8	See CRF (Validations)		NEW
	Underlier Type (One Of)	Enum	C	Legal Entity	[Legal Entity]	Internal	NEW
	Underlier ID Source	Enum	M	LEI	[LEI]	Internal	NEW
	Underlier ID	String	M	54930018DMKNUWJMI052	See CRF (Validations)		NEW
	Debt Seniority	Enum	M	MZZD	[SNDB, MZZD, SBOD, JUND]	ISO 20022	ISIN
	Underlying Issuer Type	Enum	M	Corporate	[Corporate, Sovereign, Local]	CFI:2015 Char#5 (SC****)	ISIN
	Delivery Type	Enum	M	CASH	[CASH, PHYS, OPTL]	ISO 20022	ISIN

Record Template Layout

Section	Attribute	Format	Cat	Example Value	Validation / Derivation	Enum Source	Origin
Header Section	Asset Class	Set	M	Credit		CFI:2015 Char#2 (SC****)	ISIN
	Instrument Type	Set	M	Swap		CFI:2015 Char#1 (SC****)	ISIN
	Product	Set	M	Loan			ISIN
	Level	Set	M	UPI			NEW
	Template Version	Integer	D	1			ISIN
Attribute Section	Instrument LEI	String	M	54930018DMKNUWJMI052	If input record includes LEI		ISIN
	Instrument ISIN	Enum	M	CNE000000FN8	If input record includes ISIN		ISIN
	Debt Seniority	Enum	M	MZZD	[SNDB, MZZD, SBOD, JUND]	ISO 20022	ISIN
	Underlying Issuer Type	Enum	M	Corporate	[Corporate, Sovereign, Local]	CFI:2015 Char#5 (SC****)	ISIN
	Delivery Type	Enum	M	CASH	[CASH, PHYS, OPTL]	ISO 20022	ISIN
Identifier Section	UPI	String	D	QZXZSBS9GR2B	UPI	ISO 4914	NEW
	Status	String	D	New			ISIN
	Status Reason	String	D	<null>	Not applicable to a New record		ISIN
	Last Update Date Time	DtTm	D	2021-04-19T07:55:51	YYYY-MM-DDThh:mm:ss		ISIN
Derived Section	Classification Type	String	D	SCMCCC	See CRF (Derivations)	ISO 10962:2015	ISIN
	Short Name	String	D	NA/CDS Corp Ln Mz	See CRF (Derivations)	ISO 18774	NEW
	Underlying Asset Type	String	D	Other	Fixed value	CFI:2015 Char#3 (SCM***)	ISIN
	Return or Payout Trigger	String	D	Credit Default	Fixed value	CFI:2015 Char#4 (SC*C**)	ISIN
	CFI Delivery Type	String	D	Cash	See CRF (Derivations)	CFI:2015 Char#6 (SC****)	NEW

Product Definition

Attributes	See Template Layout (above).
	In order to support the different ways in which underliers need to be supported in the definition of this product, the above Request template layout allows the user to specify the following: a) **Underlier Type** The Request template described in this document supports products that can be defined on the basis of more than one type of underlier. For this product, the user is asked to select one of the following: • Legal Entity

	• Fixed Income Security Once the Underlier Type is chosen, the user will be asked to select one of the Underlier ID Sources associated with that Underlier Type and enter the Underlier ID that matches the ID Source. ** Please see Underlier Input Method Document (link provided in the Reference Section below) for further details.*
Validation	See Request Template Layout (above). **1. Underlier ID** The following validation will be applied to Underlier ID based on the value selected on Underlier ID Source [LEI, ISIN]. a. LEI • The input text by user must be in 20 characters (18 alphanumeric, 2 numeric). • A syntactic validation is being performed to confirm LEI. • If the input LEI is less or more than 20 characters and/or is not aligned with the above pattern before hitting create, an error message will apply "Value must match the pattern ^[A-Z0-9]{18}[0-9]{2}$. • If the input LEI is not aligned with the pattern and conformed with the syntactic validation after hitting create, an error message will apply "Error: /Attributes/Underlying: instance failed to match exactly one schema (matched 0 out of 2)". b. ISIN • The input text by user must be in 12 characters (2 alpha, 9 alphanumeric, 1 numeric). • The input text must not have a prefix of "QZ" or "EZ". • A syntactic validation is being performed to confirm an ISIN when hitting create. • If the input ISIN is less or more than 12 characters and/or is not aligned with the above pattern before hitting create, an error message will apply "Value must match the pattern ^(?!(EZ\|QZ))[A-Z]{2}[A-Z0-9]{9}[0-9]$." • If the input ISIN is not aligned with the above pattern and conformed with the syntactic validation after hitting create, an error message will apply "If Error: /Attributes/Underlying: instance failed to match exactly one schema (matched 0 out of 2)". • If the input ISIN is aligned with the pattern criteria but ISIN value does not conform with syntactic validation, an error message will apply "Error: ISIN/s must be valid".
Normalization	Not Required.
Attribute Data Dictionary	This section provides the exact reference or source of the attribute. *(table below)*

Full Name	Source	Type
Delivery Type	ISO 20022 FinancialInstrumentReportingReferenceDataReportV01	Enums *[CASH, PHYS, OPTL]*
CFI Delivery Type*	ISO 10962 Classification of financial instruments (CFI code)	Enums *[Cash, Physical, Auction]*
Debt Seniority	ISO 20022 FinancialInstrumentReportingReferenceDataReportV01	Enums *[SNDB, MZZD, SBOD, JUND]*
Underlying Issuer Type	ISO 10962 Classification of financial instruments (CFI code)	Enums *[Corporate, Sovereign, Local]*
Instrument LEI	ISO 17442 LEI Codes	Max of 20 text (pattern) Char 1-4: LOU Identifier Char 5-18: Entity Identifier Char 19-20: Verification ID
Instrument ISIN	Not Available	Max of 12 text (pattern) [A-Z] – firsts 2 characters [A-Z], [0-9] – Next 9 characters [0-9] – Last value is based on ISIN calculation

Derivation	This section provides additional details to the derivation logic specified in the Template Layout sections (above).

	Classification Type	Concatenation of the following attributes/values:
		• Instrument Type: "S"
		• Asset Class: "C"
		• Underlying Asset Type: "M"
		• Return or Payout Trigger: "C"
		• Underlying Issuer Type: from Request.UnderlyingIssuerType…
		   - Corporate → C
		   - Sovereign → S
		   - Local → L
		• Delivery Type: from Request.DeliveryType…
		   - *CASH →* *C*
		   - *PHYS →* *P*
		   - *OPTL →* *A*
		
		E.g.: "SCMCCC"

	Short Name	Concatenation of the following attributes/values:
		• Issuer: "NA/"
		• Instrument Type: "CDS" (fixed value)
		• Underlying Issuer Type: from Request.UnderlyingIssuerType…
		   - Corporate → Corp
		   - Sovereign → Sov
		   - Local → Mun
		• Product: "Ln" (fixed value)
		• Debt Seniority: from Request.DebtSeniority…
		   - *SNDB →* *Sr*
		   - *MZZD →* *Mz*
		   - *SBOD →* *Sub*
		   - *JUND →* *Jr*
		
		E.g.: "NA/CDS Corp Ln Mz"
		Note: The Short Name is based on the OTC ISIN that excludes the following field:
		   - *Notional Currency*
		   - *Expiry Date*

	CFI Delivery Type	Derived from the input Delivery Type… • CASH → "Cash" • PHYS → "Physical" • OPTL → "Auction"
GUI Details		The following section provides display information for any attributes (and values) that are not included in the related OTC ISIN definition.

Attribute	Display Name	Tool Tip (and • *value elaboration*)
Underlier Type	Underlier Type	Indicates the type of underlying asset or entity on which the product is based.
Underlier ID	Underlier ID	An identifier that can be used to determine the asset(s), index (indices) or benchmark underlying a contract or, in the case of a foreign exchange derivative, identification of the currency pair or index
Underlier ID Source	Underlier ID Source	The origin, or publisher, of the associated underlier ID.
UPI	Identification	Unique Product Identifier (ISO 4914).
CFI Delivery Type	CFI Delivery Type	The Delivery Type as defined by CFI code: ISO 10962 • *As defined by CFI Code: ISO 10962*

Additional Information	
Reference	References to external documents can be found on the DSB website at this address [https://www.anna-dsb.com/upi-external-reference-documents/].

| Comments | • Currently the system does not hold reference data to support the validation of the LEI or ISIN. This means that it is not possible to validate the existence or classification of the Underlier ID. In addition, this means that human-readable alias is not currently supported for inclusion in the Short Name attribute.
• The Standard Contract Specification only applies to Credit.Swap.Corporate; Credit.Swap.Municipal; Credit.Swap.Sovereign & Credit.Swap.Non_Standard and does not apply to Credit.Swap.Loan; Credit.Swap.ABS; Credit.Swap.Index; Credit.Swap.Index_Tranche; & Credit.Swap.Total_Return_Swap. | | |

ISO 4914 Equivalence	ISO 4914		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	Not Required	
	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	Underlying Issuer Type	Underlying Issuer Type
	Underlying credit index series**	C	Not Required	
	Underlying credit index version**	C	Not Required	
	Underlying debt issuance tenor period***	C	Not Required	
	Underlying debt issuance tenor period multiplier***	C	Not Required	

* Standard Contract Specification does not apply for this product, refer to comments section above.

**Underlying Credit Index Series/Version applies only to an underlying Credit Index. For this product, the underlying is either a Legal Entity or Debt Instrument and so these attributes are not required.

***Dependent on ISO review and approval for the inclusion of Underlying Debt Issuance Tenor Period/Multiplier as ISO 4914 (UPI) Conditional attributes.