BDM Data Standard – Locator
v0.3
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Document Version History

Version	Status	Date	Modified by	Change description	Section & line Ref	Changed from	Changed to	Effects of change
0.1	Draft	18/09/2009	DFoster	Initial Draft	-	-	-	-
0.2	Draft	30/10/2009	LHogarth	Definitions Amended				
0.3	Draft	30/10/2009	TKnowles LHogarth	Definitions Amended Document Map updated to show Side Notes and Appendix replaced with a reference to new document				

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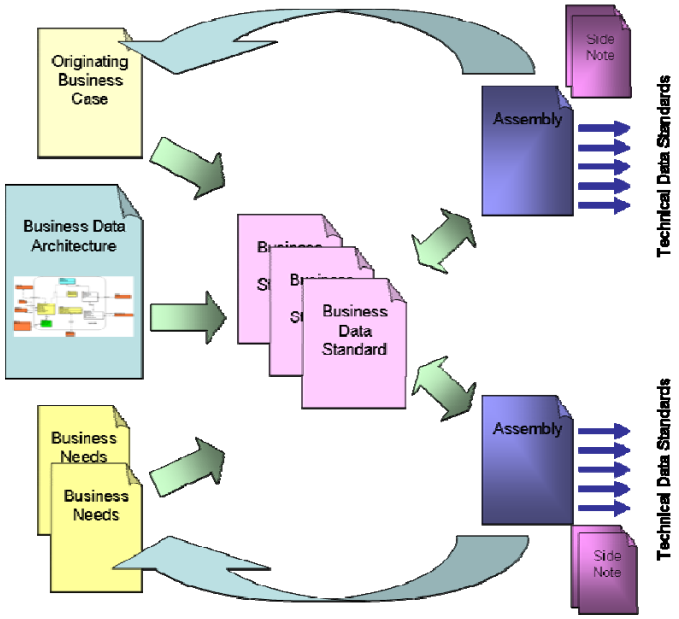
Introduction

A Business Data Standard is defined in response to a business need captured in a Business Case. In development, every effort is made to ensure that the Business Data Standard is capable to support all Education Skills and Children's Services (ESCS) business needs for the same data. The Business Case may in fact give rise to a number of Business Data Standards, and the way that the standards are associated to meet the originating business need is shown via an "Assembly" document. Each Assembly may in addition need some guidance regarding Data Quality issues and implementation issues and these are contained in "Side Notes".

The related documents are shown in the following diagram:



Many ESCS ICT systems will need to define Technical Data Standards that specify an encoding schema for data exchange and may include implementation-specific details. Such Technical Data Standards may conform to this and other ESCS ISB Business Data Standards. Those that do conform can be assured that their data will be interchangeable with any other conformant systems. A Technical Data Standard may indicate that within the scope of its use one or more attributes are Mandatory.

This Business Data Standard shows how information relating to Locators (means by which a stakeholder may be found or contacted) shall be structured into entities and relationships according to the ESCS Business Data Architecture and enumerates and defines each information attribute in terms of:

- The relationships between entities in this standard and further entities defined in other standards

- The semantics, or meaning, of each entity and each attribute
- The data type, field length and construction rules for each attribute in an encoding-independent manner.
- Where the value of an attribute is to be defined by a list of permitted values (a “code list”), a reference to the relevant code list standard
- Where the standard relates to information defined by a standard from an external organisation (ISO, BSI, CEN etc) then this will also be noted.
- Any business rules (e.g. mandatory status) that are true for *every* business use of the standard.

Many ESCS ICT systems will need to define Technical Data Standards that specify an encoding schema for data exchange and may include implementation-specific details. Such Technical Data Standards may conform to this and other ESCS ISB Business Data Standards. Those that do conform can be assured that their data will be interchangeable with any other conformant systems. A Technical Data Standard may indicate that within the scope of its use one or more attributes are Mandatory.

Data Standard

Entity relationships

The following diagrams shows the entities covered in this standard and their relationships to each other. The diagrams are:

- Entity Definition Model – A high level diagram extracted from the ESCS Business Data Architecture showing just the entities, their descriptions and the relationships between the entities.
- Attribute Model – A lower level diagram also extracted from the ESCS Business Data Architecture showing the entities and the names of their attributes. Entities are divided into two sections. The top section contains only attributes that form the primary key of the entity and the remaining attributes are in the bottom section.

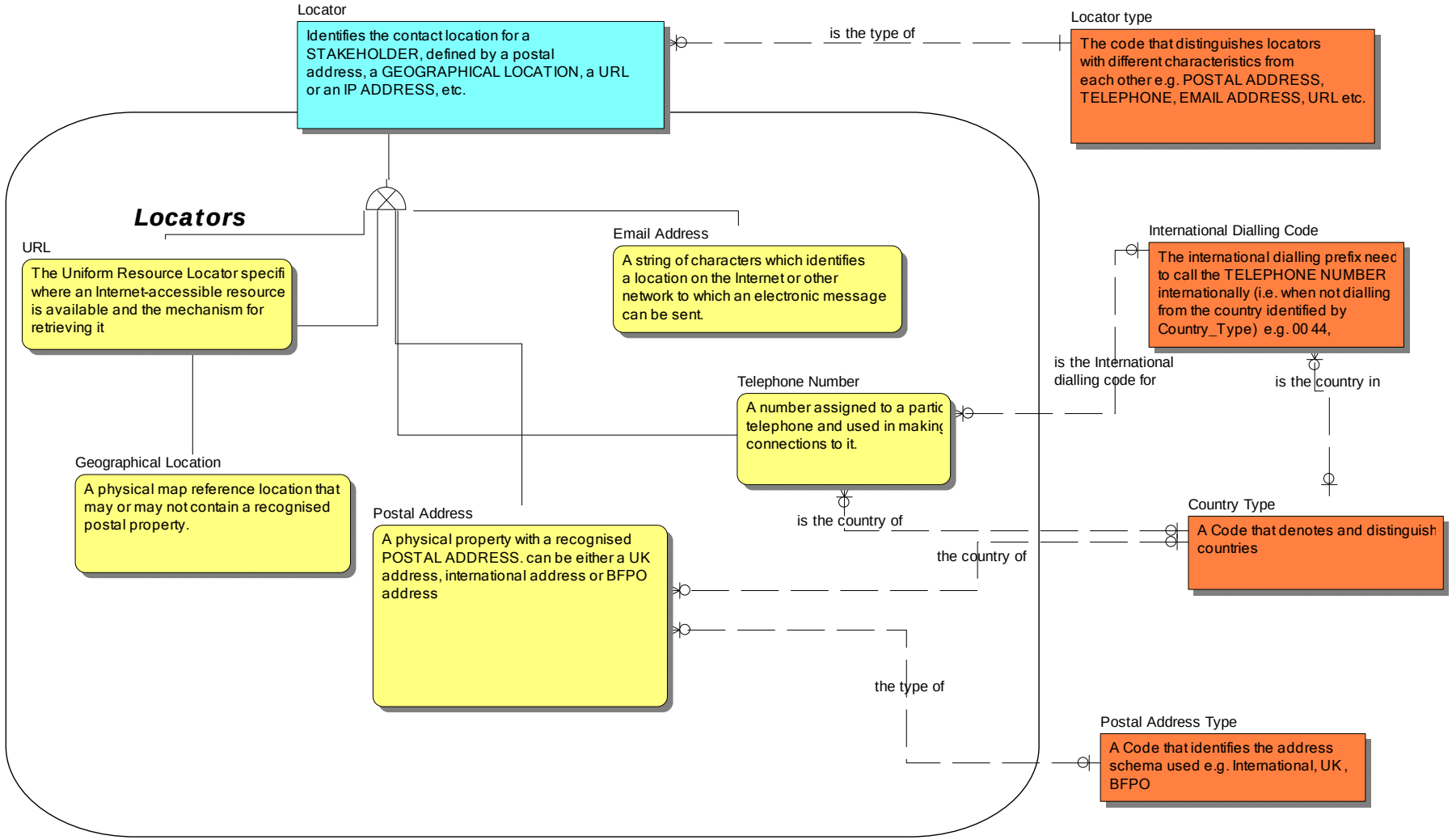
Diagram Notation

The notation used follows the Business Data Architecture Document notation (refer to ESCS Business Data Architecture document for further details). Only those entities within the boundary square are to be part of the particular data standard. Those entities outside of the boundary square are for context purposes only, or are separate reference data (orange coloured entities)

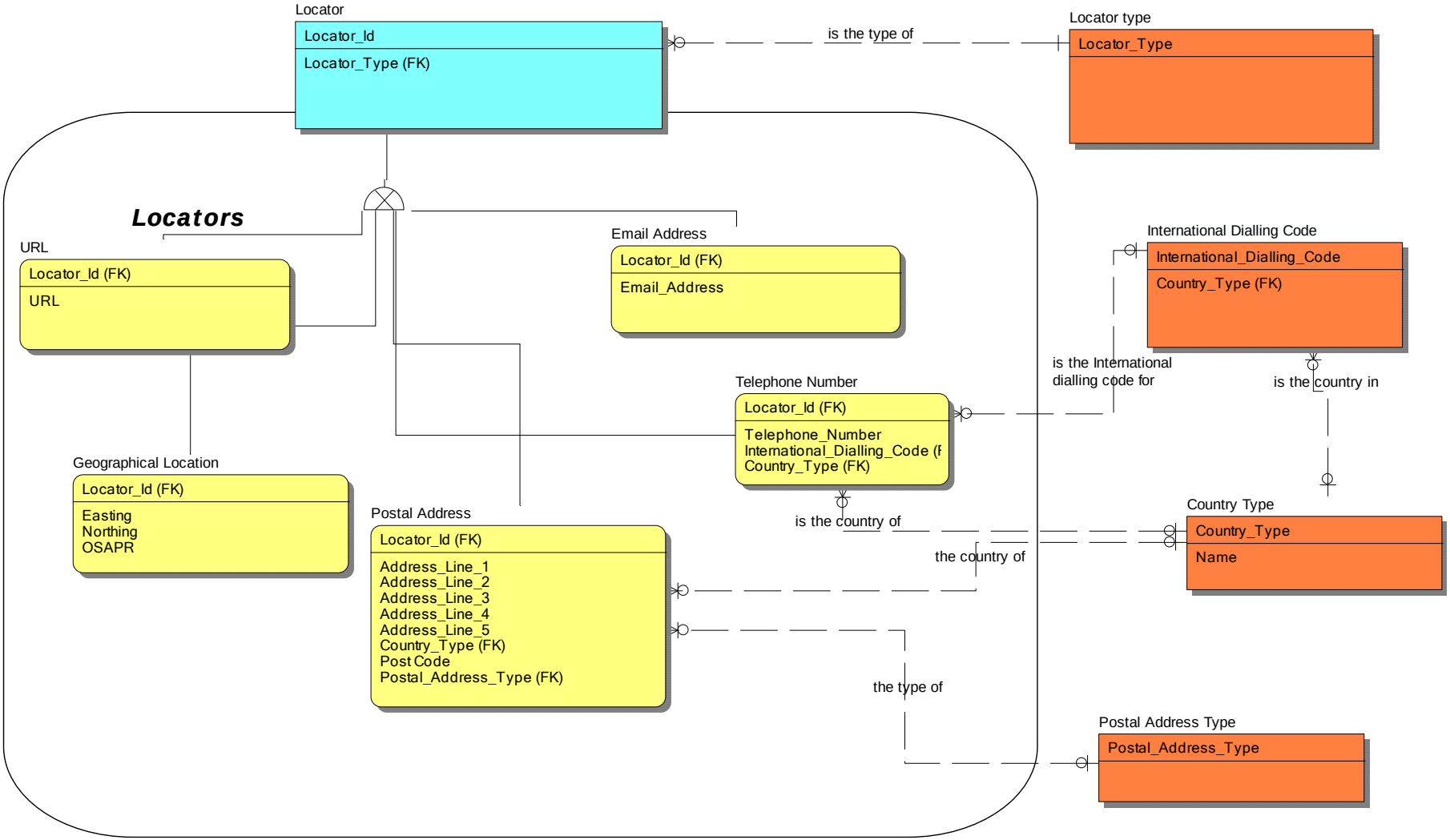
Entity and Attribute Naming Standards and Conventions used

The standards for Business Data Architecture naming and conventions used for this development is Business Data Architecture Naming Standards and Conventions Vs 1.2 by Steve Palmer.

Entity Definition Model



Attribute Model



Data definitions

The following section further describes the entities and their attributes covered in this standard.

PK = Primary Key Attribute

FK =Foreign Key Attribute

M = Mandatory Attribute

NOTE: Data Types are defined according to the conventions set out in the document "BDM Data Standard – Data Type Expressions"

Entity: Locator

Identifies the contact location for a STAKEHOLDER, defined by a postal address, a GEOGRAPHICAL LOCATION, a URL or an IP ADDRESS, etc.

Attribute Name	Attribute Definition	PK	FK	M	Datatype	Parent Entity	Parent Attribute	Code List
Locator_Id	A value that denotes and distinguishes the LOCATOR.	Y	N	Y	Simple_String (1,36)			
Locator_Type	The code that distinguishes locators with different characteristics from each other e.g. POSTAL ADDRESS, TELEPHONE, EMAIL ADDRESS, URL etc.	N	Y	Y	Simple_String (1, 25)			(See below)

Entity SubType: Locator – Email Address

A string of characters which identifies a location on the Internet or other network to which an electronic message can be sent.

Attribute Name	Attribute Definition	PK	FK	M	Datatype	Parent Entity	Parent Attribute	Code List
Locator_Id	A value that denotes and distinguishes the LOCATOR.	Y	Y	Y	Simple_String (1,36)			
Email_Address	A string of characters which will allow the Internet or other network to deliver an email.	N	N	N	Email			

Entity SubType: Locator – Geographical Location

A physical map reference location that may or may not contain a recognised postal property.

Attribute Name	Attribute Definition	PK	FK	M	Datatype	Parent Entity	Parent Attribute	Code List
Locator_Id	A value that denotes and distinguishes the LOCATOR.	Y	Y	Y	Simple_String (1,36)	Locator	Locator_Id	
Easting	The distance in metres in a easterly grid direction from a specific origin. In a co-ordinate description of a location the Easting value would be given first.	N	N	N	Simple_Long(0, 9999999)			

Northing	The distance in metres in a northerly grid direction from a specific origin. In a co-ordinate description of a location the Northing value would be given last.	N	N	N	Simple_Long(0, 9999999)			
OSAPR	Ordnance Survey Address-Point Reference	N	N	N	Simple_String(1 ,200)			

Entity SubType: Locator – Postal Address

A physical property with a recognised POSTAL ADDRESS. can be either a UK address, international address or BFPO address

Attribute Name	Attribute Definition	PK	FK	M	Datatype	Parent Entity	Parent Attribute	Code List
Locator_Id	A value that denotes and distinguishes the LOCATOR.	Y	Y	Y	Simple_String (1,36)	Locator	Locator_Id	
Address_Line_1	A free format narrative for address details for the first line of the postal address	N	N	N	Simple_String (1, 50)			
Address_Line_2	A free format narrative for address details for the second line of the postal address	N	N	N	Simple_String (1, 50)			
Address_Line_3	A free format narrative for address details for the third line of the postal address	N	N	N	Simple_String (1, 50)			
Address_Line_4	A free format narrative for address details for the fourth line of the postal address	N	N	N	Simple_String (1, 50)			
Address_Line_5	A free format narrative for address details for the fifth line of the postal address	N	N	N	Simple_String (1, 50)			

Country_Type	A Code that identifies the name of country.	N	Y	N	Simple_String(1,25)			CL_County_Type
Post Code	A value that, on its own or in combination with Address_line_1, . uniquely identifies a mail box.	N	N	N	Simple_String (1, 25)			
Postal_Address_Type	A Code that identifies the address schema used e.g. International, UK , BFPO	N	Y	N	Simple_String (1, 25)			CL_Postal_Address_Type

Entity SubType: Locator – Telephone Number

A number assigned to a particular telephone and used in making connections to it.

Attribute Name	Attribute Definition	PK	FK	M	Datatype	Parent Entity	Parent Attribute	Code List
Locator_Id	A value that denotes and distinguishes the LOCATOR.	Y	Y	Y	Simple_String (1,36)	Locator	Locator_Id	
Telephone_Number	The telephone number in national format (national prefix, trunk code and local number)	N	N	N	Telephone_ Number			
International_Dialling_Code	The international dialling prefix need to call the TELEPHONE NUMBER internationally (i.e. when not dialling from the country identified by Country_Type) e.g. 00 44,	N	Y	N	Simple_String(1 , 10)			CL_International_Dialling_Code
Country_Type	A Code that identifies the name of country.	N	Y	N	Simple_String(1,25)			CL_Country_Type

Entity SubType: Locator – URL

The Uniform Resource Locator specifies where an Internet-accessible resource is available and the mechanism for retrieving it

Attribute Name	Attribute Definition	PK	FK	M	Datatype	Parent Entity	Parent Attribute	Code List
Locator_Id	A value that denotes and distinguishes the LOCATOR.	Y	Y	Y	Simple_String (1,36)	Locator	Locator_Id	
URL	The Uniform Resource Locator specifies where an Internet-accessible resource is available and the mechanism for retrieving it	N	N	N				

Embedded Code Lists

The following code lists are intrinsic to this data standard and are as such presented here instead of in a separate standard document.

Locator_Type

Description: The code that identifies the type of locator.

List Of Values
Email Address
Geographic Location
Postal Address
Telephone Number
URL