

# MARKET CODE / OPERATIONAL CODE CHANGE PROPOSAL

Form  
version 2.2

Change Proposal reference  
(To be completed by the TP Sec.)

**MCCP182**

Version No.

**D.1**

## PART A — SUBMISSION

### A.1. GENERAL DETAILS

A.1.a. TITLE XML Schema Validation

A.1.b. COMPANY CMA

Change Proposals must be authorised by the person designated by the signatory to the Market Code Framework / Accession Agreement

A.1.c. AUTHORISED  
SIGNATURE

NAME

A.1.d. CONTACT NAME

Neil Cohen

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TEL/MOB.

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0117 942 3272

A.1.e. ASSOCIATED  
MCCP / OCCP

A.1.f. ASSOCIATED  
DOCS.

A.1.g. PROPOSED  
URGENCY

NON-URGENT

A.1.h. REASONS FOR  
URGENCY

The CMA CEO will review this information and make a decision as to whether to take this MCCP / OCCP forward as urgent as defined under Market Code Part 8.9.1

## A.2. MCCP / OCCP DETAILS

### A.2.a. ISSUE OR DEFECT WHICH THIS MCCP / OCCP SEEKS TO ADDRESS Required under Market Code Parts 8.7.1 (ii) (b) and 8.8.1 (ii) (b)

#### **Background.**

CSD0301 describes the required formats and data content for messages to be submitted to and issued by the CMA Central Systems, in order to comply with other CSDs. In addition, CSD0301 Annex describes the protocols for the submission of these messages via the HVI, specifically.

However, as the number of HVI participants has increased, there have been a small number of instances where such HVI data submissions have included a data item in a form that has not been consistent with that expected by the CMA CS. When this has occurred, typically, the CMA CS stops processing and an error is identified; thus creating unplanned downtime for the CMA CS and commensurate delays to the processing of participant submissions. To date, such interruptions have been rare and have not caused a material impact on the Production environment, but there is a risk that such problems could begin to occur more frequently in the future.

Such problems have not occurred as a result of messages sent via the LVI, as LVI validation is currently tighter than that of the XSD XML schema. However, it should be noted that any required data item conventions will necessarily apply to the LVI as well.

Historically, the LVI has been developed such that all data items are validated for format on receipt (i.e. prior to being processed by the CMA CS Listener function). In contrast, it has always been assumed that XSD XML Schema validation (to check the format of data items in an HVI batch of messages) would be undertaken by the individual Party systems and the CMA CS has been set up simply to be fully compliant with CSD0301 and CSD0301 Annex, in respect of both receiving and sending message batches.

During the early phase of the market, where there were only two Parties using HVIs, this worked well and odd occurrences where a data item was sent in a form not recognised by the CMA CS could be easily remedied by suitable additional validation being implemented at the CMA CS to reject such forms in the future, or to validate and correct before processing.

By way of example, one issue was recently caused on the CMAT1 Test Environment, whereby the CMA CS was unable to process a successfully received data item and this caused a problem for the entire CMA CS environment, as well as creating a difficulty on the Dashboard for the CMA and for the submitting Party. In the event, the entire environment was unavailable for some hours, whilst the offending data item was found and remedied. Had this problem occurred on Production, this would have resulted in the CMA CS potentially failing to process messages and the LVI being unavailable.

The sorts of issues that have been seen to date are:

- Control characters in Meter IDs (this has been fixed and such Meter IDs are now rejected)
- Whitespaces in SPID Address Data (this has been fixed and such whitespaces are removed before processing)
- Message timestamps are not always in GMT/BST
- MIDs comprising an empty string

### **Issue.**

Now that there are three HVI users on Production and more than double this on the Test systems preparing to go-live on Production, there have been further instances where inconsistent data forms have caused issues.

As more and more Parties are promoted to the HVI this has the potential to lead to wider disruption to a wider group of Parties.

There are two sources of such data format inconsistency, both for defined Data Items in CSD0301 (such as the D3001 Meter ID) and for other data items (described as 'Attributes', such as MIDs), as defined in CSD0301 Annex:

- Data Item/Attribute conventions are adequately described in CSD0301 and/or in CSD0301 Annex, but there isn't full validation either in Party systems, or in the CMA CS, to detect these before processing in the CMA CS begins.
- Data Item/Attribute conventions are not adequately described in CSD0301 and/or in CSD0301 Annex.

### **Solutions**

A number of solutions are proposed:

- CSD drafting to provide a more comprehensive set of requirements for data conventions (for both the HVI and the LVI).
- Additional validation by the CMA CS, with automatic correction of incorrect formats, where the anomaly can be unambiguously dealt with and rejection of non-compliant submissions, otherwise (which will apply to both HVI and LVI, but should not have any impact on LVI use, given the tighter current validation and the reduced volumes of transactions).

A.2.b. DESCRIPTION OF THE NATURE AND PURPOSE OF THE MCCP / OCCP AND HOW IT MEETS THE MARKET CODE / OPERATIONAL CODE OBJECTIVES AND PRINCIPLES FOR THE MARKET DOCUMENTS Required under Market Code Parts 8.7.1 (ii) (c) and 8.8.1 (ii) (c)

General Description

The solution involves a number of components:

1. **CSD Changes:**
  - a. CSD0301 will be modified to identify that CSD0301 Annex will include specific data conventions for both HVI and LVI data submissions.
  - b. CSD0301 Annex will include a description of the conventions required for data item submissions, typically requiring message rejection, but by exception, involving a data correction before processing.
  - c. CSD0301 will also be modified to correct a small number of Data Item names that appear to be in error;
    - D1003 Originator's Reference should be Flow Reference
    - D1005 Transaction Source Org ID should be Sender Org ID and
    - D1006 Transaction Destination Org ID should be Recipient Org ID
2. **CMA CS Changes:**
  - a. Where possible, correction of a data item into an acceptable form should be undertaken by the CMA CS, on receipt of an HVI message.
  - b. Otherwise, additional validation will be developed to ensure that data submissions are always compliant with required conventions and formats.

Principles and Objectives affected  
CMA Guidance Note GN009 may be referred to for assistance with this section

PRINCIPLE	AFFECTED (Y/N)	DESCRIPTION
Proportionality	Y	This proposal delivers a single set of changes against a single set of requirements, in preference to changes being made on a case-by-case basis, as issues arise and against a set of requirements that need to be agreed at each instance.
Transparency	Y	Full data submission requirements are set out in CSDs
Simplicity, Cost-effectiveness, and Security	Y	A one-off set of changes, accompanied by a definitive set of requirements is simpler and more cost –effective than reactive changes being made as CMA CS error occur as a result of inconsistent data formats.
Non-exclusivity	N	
Barriers to Entry	Y	New entrants will be unaware of certain data formats and this creates a risk.
Customer Contact	N	
Non-discrimination	Y	CSD drafting changes will ensure that all HVI users have a common understanding of what

		data formats and conventions apply.
Non-detrimental to SW Core Functions	N	
MC / OC OBJECTIVES		

A.2.c. IMPACT Required under Market Code Parts 8.7.1 (ii) (d), (f) and (g), and 8.8.1 (ii) (d) and (f)		
CONFIGURED ITEM	IMPACTED (Y/N)	DESCRIPTION
MC / OC	N	
CSDs	Y	CSD0301 and CSD0301 Annex will need to be amended, as per Annexes 1 and 2 of this MCCP.
Wholesale Services Agreements	N	
Licenses	N	
CMA Central Systems	Y	The CMA CS will need to include XML Schema validation and processing for the required formats and conventions.
CMA business processes	N	
Trading Party systems	Y	Trading Party systems will need to ensure that their XML Schemas comply with the required formats and conventions
Trading party business processes	N	

A.2.d. DRAFT LEGAL TEXT  
Required under Market Code Parts 8.7.1 (ii) (d) and 8.8.1 (ii) (d)

Section 1.1 of CSD0301 should be modified as follows:

**1.1 Annexes**

Items 3 and 4 **above** are **Annexes** as follows:

- Annex A: HVI
  - Transport & security
  - Web Services Communication Protocol
  - XML Schema for Transactions & Data Items
  - Web Services WSDL Description
  - **Data conventions for both HVI and LVI**

Section 2 of CSD0301 should be modified, such that the following Data Item Names are changed as follows:

- D1003 **Originator's Reference** should be **Flow Reference**
- D1005 **Transaction Source Org ID** should be **Sender Org ID** and
- D1006 **Transaction Destination Org ID** should be **Recipient Org ID**

In addition, CSD0301 Annex will be augmented by specific data conventions and these will be as identified in Annex 1.

A.3. IMPLEMENTATION DETAILS

A.3.a. PROPOSED IMPLEMENTATION DATE OR LEAD TIME  
Timescale must not overlap with the period of consultation with the Commission and should take account of the impacts identified in Section A.2.c. Any quoted lead time should commence from date of Approval.

March 2016

A.3.b. ANY LIMITATIONS OR DEPENDENCIES FOR IMPLEMENTATION

A.4. ANY OTHER COMMENTS

The following are the Indicative User Requirements for this proposal:

**UR 1 HVI XSD Schema.** Validation by the XSD Schema should be added to as given in Annex 1.

**UR 2 LVI.** Any additional XSD Schema validation not already reflected should be included in the LVI screen validation for data formats and content.

## PART B — TP ASSESSMENT

### B.1. ASSESSMENT PROCESS

B.1.a. ASSESSMENT START DATE	2015-07-07	ASSESSMENT END DATE	2015-08-20
B.1.b. IMPACT ASSESSMENT REQUIREMENT	IA REQUIRED		
B.1.c. CONSULTATION REQUIREMENT	TP CONSULTATION NOT REQUIRED		
B.1.d. ASSOCIATED DOCUMENTS (to this Part B)			

### B.2. ASSESSMENT DETAILS

B.2.a. CHANGE SPECIFICATION AND IMPACT (if different from that originally submitted)

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B.2.b. DRAFT LEGAL TEXT (if different from that originally submitted)

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B.2.c. TP ASSESSMENT  
Taking into account complexity, importance and urgency, and having regard to whether or not such proposal is within the relevant Objectives and Principles as required under Market Code Parts 8.7.1 (v) and 8.8.1 (iv)

Impact on Principles and Objectives (if different from that originally submitted)	
Cost Estimate	
Benefit Estimate (L: < 10k, M: £10k to £100k, H: > £100k)	

B.3. TP DECISION TP APPROVED

B.4. FINAL TP VIEWS Unanimously approved

B.5. PLANNED IMPLEMENTATION DATE March 2016

WITHDRAWN BY PROPOSER?	YES / NO
COMMENTS	
DATE OF WITHDRAWAL	

### PART C — COMMISSION APPROVAL

C.1. DATE FINAL REPORT ISSUED TO COMMISSION	2015-09-01
C.2. APPROVAL STATUS	APPROVED CHANGE
C.3. DATE OF APPROVAL STATUS	2015-09-17
C.4. COMMISSION RESPONSE REFERENCE	

### PART D — IMPLEMENTATION

D.1. IMPLEMENTATION DATE	2016-03-18
D.2. IMPLEMENTATION DETAILS (MC version, CSD versions, CMA Central Systems release number, etc.)	
Release 4.4 CSD0301 v12.0	