	CP No: 1382
Change Proposal	
	Version No: 1.0 *(mandatory by BSCCo)*

Title *(mandatory by originator)*
Clarification of IDD rules for leading zeroes

Description of Problem/Issue *(mandatory by originator)*

The NETA IDD Part 1 contains a definition of the decimal (n,d) data type that is misleading in its treatment of leading zeroes.

The full set of rules are contained in Section 2.2.3 (pg15) and state the following:

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n must be greater than or equal to d
optional leading "–" for negative numbers
no leading zeros, except where n = d, then number starts "0."
no trailing zeros
maximum n digits
maximum d digits after decimal point
maximum (n-d) digits before decimal point, except where n=d, then number starts with "0."
field may have "–"; from 1 to (n-d) digits;
and optionally "." and up to d digits.
Thus the maximum field width is n+2 in the case of a negative value, except for the special case of n=d, where the maximum field width is n+3 including the leading zero.
e.g.:   -123.456 is decimal (6,3)
          -0.123 is a decimal (3,3)
To clarify the valid values between 1 and -1, the value 0.123 can be represented as:
          0.123 or .123
          but not:
          00.123 or 0.1230
Valid representations of zero are:
          0 0.0 .0 0. -0 -0.0 -.0 -0.
          but not as a decimal point with no digits.

The third line suggests that leading zeroes are only allowed where n=d. For example, if we had two data items, N1234 and N5678, with formats decimal (3,3) and decimal (6,3) respectively, this text would mean that for N1234, 0.1234 and .1234 would both be acceptable, but for N5678, .5678 would be acceptable whereas 0.5678 would not.

This is inconsistent with the examples given at the end of the definition in the IDD, which suggest a decimal like 0.5678 should be acceptable. More importantly, this is also inconsistent with the way the central systems operate, as for any value of n and d they always aim to use the form '0.5678' rather than '.5678'.

This anomaly was identified by a party while testing their validation processes. ELEXON has concluded that the definition in the IDD is misleading and needs to be simplified.

Proposed Solution *(mandatory by originator)*

The definition in the IDD should be changed to state the following:

> maximum n digits
> maximum d digits after decimal point
> maximum (n-d) digits before decimal point
> leading "-" required for negative numbers
> no trailing zeros
> no leading zeros other than where value is between -1 and 1, then number may start with "0."
>
> To clarify, the value 0.123 can be represented as:
>
>   0.123 or .123,
>
> But not
>
>   00.123 (an invalid leading zero) or 0.1230 (an invalid trailing zero)
>
> Valid representations of zero are:
>
>   0 0.0 .0 0. -0 -0.0 -.0 -0.
>
> but not as a decimal point with no digits.

This should be easier to understand and avoids adding the complication of n=d, which in practice, has the same impact as any value being between -1 and 1.

Justification for Change *(mandatory by originator)*

The current definition is not consistent and can be confusing; at worst it gives a misleading impression of how data is delivered by the central systems. This CP proposes a change to the definition so that it accurately reflects how the central system operates.

Also much of the definition is concerned with the special case where n=d. There are no
such data items in the current NETA catalogue, therefore there is no need for such complexity in the IDD wording..

To which section of the Code does the CP relate, and does the CP facilitate the current provisions of the Code? *(mandatory by originator)*

This CP facilitates the current provisions of BSC Section O.

Estimated Implementation Costs *(mandatory by BSCCo)*

Costs associated with ELEXON making the proposed changes equates to £240 (1 man day effort).

There are no required system changes associated with CP1382.

Configurable Items Affected by Proposed Solution(s) *(mandatory by originator)*
NETA IDD Part 1 Word Document

Impact on Core Industry Documents or System Operator-Transmission Owner Code *(mandatory by originator)*
None Identified.

Related Changes and/or Projects *(mandatory by BSCCo)*

None Identified

Requested Implementation Date *(mandatory by originator)*
June 2013 Release

Reason:
This is the next available release.

Version History *(mandatory by BSCCo)*

We raised v1.0 of this CP on 24 October 2012 for Industry Impact Assessment.

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Attachments: Y/~~N~~

Draft redlined changes to NETA IDD PART 1