



D0313 Questionnaire Responses

Issue 46 'Non Half Hourly Interoperability' – D0313 Questionnaire Responses

ELEXON requested data and analysis on the D0313 flow from the Issue 46 Group on 24 June 2013, due to the issues raised by the Group in its first and second meetings. A review of the data received in each response shows a high volume of missing D0313s, as detailed below:

- 16%
- 18%
- 21%
- 33%
- 57%

The data received has also shown that out of the D0313s that have been received, high volumes were either incomplete or were not able to be processed¹:

- 20-25% incorrect registers
- About 50% have some sort of issue
- About 5 % errored
- About 5% missing comms details.

Detailed data provided by some Issue Group members suggest that the MOAs are not always sending D0313s (as well as not receiving them). In order to obtain further information from the Issue Group, a subsequent questionnaire was sent to Group members.

ELEXON submitted the D0313 questionnaire to the Issue 46 Group on 3 October 2013. The Group reviewed the responses at the final meeting.

¹ In comparison, missing D0150 flows, as measured by PARMS Serial NM12, are currently averaging 0.11%.



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Question 1: Are the high volumes of missing D0313s a performance issue that could be addressed via the Performance Assurance Framework (PAF)?

Summary

Yes	No	Neutral/Other
4	1	2

Responses

Respondent	Response	Rational
TMA	YES	None provided.
G4S	YES	These could be covered as part of the BSC Audit.
Siemens	NEUTRAL	We are not sure that the volume of exceptions justifies this approach. Additionally, some issues are commercial in nature, and so possibly could not be addressed via the PAF anyway.
EDF Energy	YES	We believe that the techniques available under the Performance Assurance Framework could assist in the resolution of missing D0313s. We believe that this could be achieved both through Technical Assurance and through the BSC audit as these techniques would identify where MOAs are not meeting their compliance obligations around the sending of the D0313, and require them to provide a plan for addressing these non-compliances. However we believe that this will only even go part way towards resolving the issue of missing D0313s as in many cases the issues behind the inability to send the D0313 lie with previous agents, and are not in the gift of the current MOA to resolve. This is specifically the case where the current MOA was not the party that installed the AMR meter and was notified of this meter (on a CoA) prior to the introduction of the D0313. The PAF can bring an increased focus to the issue and will improve performance, but will not be able to resolve the whole of the issue.



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IMServ	YES	We believe it would be very helpful if Elexon performed targeted audits of the working practices of all NHH Meter Operators. Visiting the Meter Operators at site and reviewing procedures is preferable of scripted PARM style reporting.
British Gas	NEUTRAL	None Provided
ScottishPower	NO	Missing D0313s could be measured in a similar way to D0149/D0150s or D0268s through the PARMS serials however we would question the effectiveness of this as the sending/processing a D0313 does not guarantee that an AMR meter can be read remotely. Contracts between the outgoing MOA/NHHDC and SIM provider can be terminated rendering the AMR 'dumb' on a Change of Agent and in these instances, successful exchange of the D0313 provides no value.



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Question 2: Are there mitigating circumstances for not sending the D0313 which would complicate performance monitoring? If yes, under what circumstances would you not send a D0313?

Summary

Yes	No	Neutral/Other
3	2	2

Responses

Respondent	Response	Rational
TMA	NEUTRAL	None provided.
G4S	YES	Inherited Meter, where we do not have any/correct data. It is not possible to issue a D0313.
Siemens	YES	If the incoming data flow contains incorrect data, then we are sometimes unable to process, and then we will not be able to send the D0313 on that MPAN if we lose the appointment.
EDF Energy	NO	As an MOA there are no circumstances in which we would not send a D0313 where the accompanying D0150 dataflow indicates that the meter on site is an AMR meter. This is enforced through our MOA system functionality which does not allow this to occur. Where we do not hold the details to be able to send a D0313 (where we did not install the AMR meter and are not able to obtain the communications details for previous agents then we will update the meter type to 'N' on the D0150 being sent to reflect the fact that it is not possible to communicate with the meter. This then has the unfortunate effect of losing the traceability that an AMR capable meter is installed on site but this is an accurate reflection of the communication status of the meter and reflect the DTC notes for this data item.
IMServ	NO	Code of practice states that if a meter type is RCAMR/RCAMY/NCAMR then a full set of MTDs consists of



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		<p>D0149, D0150 and D0313, there are no circumstances where it's acceptable for Meter Operator to send a D0149 & D0150 without sending a D0313.</p> <p>Some MOPs may contend that they have RCAMR/RCAMY/NCAMR meters in their databases but they don't have D0313 related information i.e. Outstation, Comms address. If this is the case the MOP should locate the missing information and build the missing D0313, if this is not possible the meter type should be change the meter type to a Non-AMR type i.e. 'N'.</p>
British Gas	NEUTRAL	None Provided
ScottishPower	YES	<p>As with MTD flows, an MOA can only send a D0313 if it has received these details from any previous MOAs – if these have not been received then we feel it would be inappropriate to consider this a non-compliance related to the sending of D0313s.</p> <p>Also, as described in the answer to Q1, the SIM provider contracts might be terminated as soon as the MOP is de-appointed. It could be argued that as the meter will effectively become 'dumb' at the point of Change of Agent, the contents of the D0313 will become largely unimportant and therefore the D0313 would fulfil no practical use, in which case it would be pointless sending the flow.</p>



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Question 3: In the case of Question 2, how would you respond to the D0170 in these circumstances?

Responses

Respondent	Response
TMA	None provided.
G4S	Just a D0150 and D0149
Siemens	We would just send a D0149 and D0150. We do not update the Meter Type Code to 'N' in the case where no comms details have been provided.
EDF Energy	As per the answer to question 2 we will only respond to a D0170 with either all three dataflows (D0149/D0150/D0313) where the meter is shown as being an AMR meter, or with a D0149/D0150 (or just a D0150 where there is no meter on site) where the meter is not shown as being an AMR meter.
IMServ	If a MOP Received a D0170 for an AMR meter type (RCAMR/RCAMY/NCAMR) and they are unable to generate the D0313 they should be required to amend the meter type to an appropriate Non-AMR (N, NSS etc.) which will then allow the MOP to send just the D0149/D0150.
British Gas	None provided.
ScottishPower	Where we held the relevant details to populate the D0313 we would endeavour to send the flow.



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Question 4: How should Meter Type be used for Advanced Meters with comms, where the MOA does not have the comms details?

In the D0313 questionnaire provided to the Issue 46 Group, ELEXON noted that the DTC notes for Meter Type (J0483) state that “if a meter is capable of AMR and no comms are installed then Meter Type Code ‘N’ (Non-Half Hourly) should be used”. However, some of the Groups initial D0313 data responses indicate that the Meter Type is being set to ‘N’ because no comms details have been provided, rather than because no comms have been installed.

Responses

Respondent	Rational
TMA	Meter Type should show if it is AMR where the MOP does not have the comms details. If D0313 is missing, MOA should investigate further to get details needed to send onto agents. Furthermore if meter type is set to ‘N’ where the meter is AMR it would be hard to keep track of which meters are non-half hourly or AMR – Industrial/commercial.
G4S	Use correct meter type but it isn’t possible to send a D0313. In this scenario the meter type received is assumed to be correct.
Siemens	A new value should be added to the Valid Values data set to indicate this (i.e. AMR meter type but comms details not known).
EDF Energy	We believe that the current rules defined in the DTC for the use of meter type are incorrect and lead to losing traceability of the installation of an AMR capable meter where there are either issues with the comms or where comms details are not available. As noted in the answer to question 2 above, where we are not able to locate comms details for a meter we have been notified is an AMR then we currently need to change the meter type to ‘N’ which means the fact that an AMR meter is installed and action is required to resolve the comms is lost. We believe that an alternative mechanism is required to be able to identify an AMR meter which is not able to be communicated with, for example through the use of additional values for Meter Type (for example RCAMC where the remotely configurable AMR meter has no comms), or through the use of the existing values for meter type but the use of another indicator (such as Retrieval Method) to indicate the status of the comms to the meter.
IMServ	I don’t agree with the DTC in respect to meters type, I believe that if an AMR meter has been installed at a non-domestic site and the comms



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	<p>are not working i.e. no GSM signal, the MOP should register the meter as RCAMR, RCAMY or NCAMR and set the comms type to either 'HT or 'HP' (as per the HH procedure).</p> <p>I believe the current DTC practice is seriously flawed as newly appointed Supplies and MOPs have no view of what type of meter has been installed and as result are re-attempting unnecessary meter changes.</p>
British Gas	The correct meter type should be used and the (non)issue of D0313 to indicate comms capability.
ScottishPower	A more consistent approach is required across the industry on how the Meter Type Code should be populated and the scenarios in which it should be changed (if indeed it ever should be).



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Question 5: To what extent would you estimate that missing D0313s are the result of the old MOA setting the Meter Type to 'N'?

Responses

Respondent	Response
TMA	Unable to tell
G4S	If MTDs show Meter Type as 'N' we would not expect a D0313 so therefore they aren't missing.
Siemens	Not known.
EDF Energy	Where the meter type is set to 'N' there is no expectation that a D0313 will be received as the meter is shown to be a normal credit meter. On this basis we do not have any missing D0313s as a result of the meter type being set to 'N' as we have no expectation of receiving the D0313 where this is the case. We are also not able to analyse which meters we have gained that might be AMR capable but which might have been changed to 'N' by the previous MOA due to an issue with the comms. Aside from the Meter Type it would only be possible to determine if a meter were AMR capable from the Manufacturer Make and Type information on the D0150 and given the inconsistent population of this data item this cannot robustly be used to identify meter models accurately.
IMServ	Between 57% and 42% missing
British Gas	None provided.
ScottishPower	We are unable to quantify this using the data available to us.



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Question 6: Where a D0313 is not received as a result of the old MOA setting the Meter Type to 'N', does the new MOA retain advanced functionality by other means or does the Meter revert to 'dumb'?

In the D0313 questionnaire provided to the Issue 46 Group, ELEXON noted that some of the Groups initial D0313 data responses suggested that the D0313 wasn't essential to interoperability (or didn't provide enough information), for example:

- 'Meter Operators who place less emphasis on the importance of the D0313';
- 'The D0313 was introduced to ensure MOA's and DR's could read each other's meters, but this is often not happening, even having received the D0313'
- 'Where it is the same MOA as DR or DC, the we often to not receive D0313, but in these cases it does not affect the quality of the remote usage data received'

Responses

Respondent	Response
TMA	None provided.
G4S	We treat the received Meter Type as correct. If it received as 'N' it is believed to be dumb and treated as such. The exception to this is if we re-gain a meter we installed.
Siemens	Currently the number of meters we inherit from other MOA's is fairly small so we do not have a large problem with this scenario. Where this does happen (i.e. can't communicate with existing AMR meter), we would seek to get agreement from the customer to exchange the inherited meter (or just the SIM card) for one of our own.
EDF Energy	As per the answer to question 5 above, where the old MOA provides a meter type of 'N' on the dataflows then this will be regarded as a normal credit meter by our systems when the flows are receive and so the meter will revert to 'dumb' functionality and will be maintained, configured and read through site visits undertaken by the MOA or the NHHDC (as appropriate). Again as detailed above it would only be possible to identify that the meter was AMR capable through the Manufacturer Make and Type, and this cannot be done robustly based on the inconsistent population of this data within dataflows.
IMServ	Technically the meter reverts to DUMB, although it's possible that a NHH DR retains the dial information and may continue to collect data.



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British Gas	None provided.
ScottishPower	In the main the meter will remain as 'dumb' and be read via site visit (where the configuration is known or can be determined) until such time as it is possible to exchange either the SIM card or, where there is no alternative, the AMR meter itself. If there has been no D0313 received and the Meter Type is set to 'N' how would the new MOA know the meter is AMR? The Manufacturers Make & Model can be used as a means of identification but this uncertainty should be addressed to ensure a consistent approach is used by all MOAs.



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Question 7: To what extent are the missing/erroneous D0313s preventing interoperability (keeping a Meter on the wall and retaining advanced functionality)?

Responses

Respondent	Response
TMA	From DC perspective non receipt reverts the meter to 'dumb'.
G4S	D0313 is necessary for interoperability when MOA/DC/DR changes but it doesn't provide enough information on its own. It doesn't provide enough information to enable SIM novation.
Siemens	Not known. The D0313 is not the only issue in this respect. Issues with SIM card contracts are also a significant factor.
EDF Energy	The issues with missing or erroneous D0313s do mean that for a significant proportion of the meters we gain, we are not able to operate them remotely and therefore revert to manual meter reading and to site visits for reconfiguration of the meter. However just as significant are the issues with the D0313 being received in what would be regarded as a valid format, but where accurate readings cannot be obtained due to the lack of standardisation in the way that AMR meters are configured across different manufacturers and different MOAs. On this basis, actions taken to improve the timeliness of sending of the D0313s by MOAs will only have a limited benefit in terms of interoperability for AMR meters.
IMServ	Main issue is where the meter type is "N" resulting in no D0313 being sent, difficult to quantify, the other issue is where Meter Operators haven't back-populated their portfolios when the D0313 was introduced meaning any early installations are missing information.
British Gas	Our experience is that a correct D0313 does aid the overall process and shortens the timeframes to establishing initial interoperability however this is inconsistent in both success and the stability of the comms established as the D0313 does not support SIM novation.
ScottishPower	We believe that missing/erroneous D0313s are not the main driver for loss of interoperability - the biggest issue is the outgoing MOA or NHHDC cutting comms with the SIM provider thus rendering the AMR 'dumb'.



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Question 8: What is missing from the D0313, if anything, that prevents Meters being read (even after receiving a complete and correctly populated D0313)?

Responses

Respondent	Response
TMA	Nothing extra needs adding.
G4S	It is possible to read Meters if a correct D0313 is received (if the Meter Type protocol is supported). However, the details of the Register mapping/memory locations isn't always sufficient without manually reviewing the Meter setup. Also SIM novation usually needs to be carried out for ongoing operation of inherited Meters, the D0313 doesn't provide all the information to initiate this process.
Siemens	<p>A significant problem is when the SIM card owner cancels the SIM contract after the installing Meter Operator has lost the customer. This usually forces the new MOA to visit site to replace the SIM or meter.</p> <p>If the SIM card owner was known, then we could potentially novate the existing SIM onto our own contract. In addition, some network providers (e.g. O2) are unable to novate a SIM with only the dialling number, and need a billing number / SIM number as well to be able to do this. So these values could potentially also be included on the D0313.</p>
EDF Energy	We do not believe that there is anything missing from the D0313 that prevents meters from being read, we believe that the issues with interoperability where a D0313 is received are caused by the lack of standardisation of the way that registers are set up by the installing MOA, and the way that this information is subsequently communicated via dataflows. Without this level of standardisation across MOAs, the NHHDCs that receive D0313s need to be able account for a multitude of different ways of working, which is in many if not most cases not practical. There are further complications that are caused by a lack of standardisation across manufacturers in the way that meters can be set up and communicated with. These were issues that should have been considered and resolved prior to the commencement of installation of AMR meters by MOAs, trying to do this at this point in time is likely to be complex and is likely to impact some MOAs more than others.



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IMServ	Channel level information, incorrect Outstation ID's, obscured passwords/usernames that prevent data collection if uses i.e. lv1 is visible but lv2 is not so no time sets can occur.
British Gas	Details required for SIM novation process.
ScottishPower	Please see our response to Question 7.



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Question 9: What can be changed about the D0313 to improve the following?

- The clarity of when it should be sent/expected;
- The process for chasing missing/erroneous D0313s; and
- The overall quality of the D0313.

Responses

Respondent	Response
TMA	Details within the D0313 should be more closely checked/validated. i.e. comms address of '07' will not allow DR to communicate with the meter.
G4S	None provided.
Siemens	There is no standard approach to populating the flow leading to difficulties in mapping registers to readings. A guidance document on D0313 population, e.g. as an appendix to BSCP 514 would be helpful. A further improvement would be if there was a central list of contacts for all relevant parties, as the outgoing SIM owner must also provide written consent for the novation to the network operator.
EDF Energy	<p>We do not believe that there is much scope to be able to improve the D0313 at this point in time.</p> <p>We believe that it is already clear within BSCP 514 that, where a meter is shown as being an AMR meter that the D0313 must be sent as part of the set of dataflows that are sent on CoS. We don't believe that there is anything within the BSCP that could be changed to improve the situation; MOAs are not compliant with the BSCP where they are not sending the D0313 for a meter indicated as being an AMR meter.</p> <p>We also do not believe that there is anything that could be done in regards to the process for chasing missing/erroneous D0313s. Where a D0313 is not received into our MOA systems when expected or if a D0313 fails due to a data quality issue then we will contact the previous MOA using existing routes that we use for missing/erroneous flows on CoS. In some cases this will lead to the issue being resolved and the missing data being received (or the erroneous data being corrected), however in some cases this is not possible as the previous MOA may not have the required detail and not be able to obtain it. As noted above, in these circumstances we will update the meter type to 'N' to reflect the fact that the meter is not able to be communicated with, even though it might actually have a communications link in</p>



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	place this cannot be used.
IMServ	Information made mandatory if it is available, irrelevant of meter type... not sure about the other 2, we chase with a D0170. Main quality issue is completeness of information.
British Gas	None provided.
ScottishPower	Clarity is required on when to send/expect a D0313 –including additional fields within the D0150 flow which would signify if Comms have been fitted and if Comms are currently available (Comms Fitted? - Y/N; Comms Available? – Y/N) would allow Parties to identify more effectively when they should expect a D0313 and when they shouldn't. It is vital however that guidance is published on how the different scenarios should be treated by Parties and Agents.



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Question 10: To what extent would interoperability improve in Profile Classes 5-8, if P272 is approved by the Authority?

Responses

Respondent	Response
TMA	Interoperability would increase if P272 is approved by the Authority. If treated as HH there would be fewer errors. D0268s are processed and very few errors are found with these flows.
G4S	Not sure there is an answer to this, the model used for PC 5-8 is different to HH, it is not obvious how this would change if P272 was approved.
Siemens	<p>Interoperability <i>may</i> improve in the long term if P272 is approved but we are not convinced that it definitely would.</p> <p>1) Implementing the change would be impacted by at least 2 issues:</p> <p>2) All affected MPANs would have to undergo a Change of Measurement Class. This is a process that does not work very smoothly at the best of times.</p> <p>Some of the AMR meters installed on Profile Class 5-8 sites may not be CoP compliant, or the Data Collector may not have gained Protocol Approval for the meter type. In both these cases, there is the possibility that the existing meter may need to be replaced, unless there is some kind of derogation. Unnecessary meter exchanges is exactly the problem interoperability is aiming to address.</p>
EDF Energy	While there are apparently fewer interoperability issues for meters in the current HH market, we believe that this is largely due to the nature of the customers and contractual relationships that are currently a feature of this part of the market. All MOA agents in the HH market are contracted directly by customers and a smaller number of active MOAs and HHDCs has allowed for a set of relationships and working practices to be established over time that enables interoperability for HH metering. It is also the case that the manual effort required to make HH metering processes work is proportionately higher than for other types of metering, including AMR. It is not clear whether the approval



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	<p>of P272 and the inclusion of a large number of additional sites of lower value to settlements will improve the level of interoperability for meters that are currently AMR, and we would not support the implementation of P272 as a solution to the current issues affecting AMR interoperability which should be able to be addressed by other means.</p>
IMServ	<p>No improvement if meter operator contracts are not separated from DC/DP/DA contracts i.e. the issue comes from the fact that the services are bundled.</p> <p>However in HH this is not normally the case, so provided the 5-8 sites fall in line then we will benefit from MOP not changing then DC does – This will depend entirely on the commercial viability, by their nature HH services are traditionally much more expensive than NHH services.</p> <p>PC 5 – 8 customers are used to paying a lower price and will likely be resistant to any increases putting commercial pressures on the market to keep the status quo.</p>
British Gas	<p>None provided.</p>
ScottishPower	<p>In our opinion the issues around interoperability in Profile Classes 5-8 would persist if P272 is Approved as the termination of SIM provider contracts by the outgoing agents, and therefore the ability of the new agents to read the AMR remotely, would continue to occur. In addition it is our opinion that HH interoperability is not as prevalent in the HH market as has previously been suggested in the industry, since the regular practice at a change of Supplier or MOA event in the HH market is for the meter to be exchanged.</p>



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Question 11: To what extent are the same interoperability issues being experienced for Advanced Domestic Meters (ADMs)?

Responses

Respondent	Response
TMA	Same issues
G4S	Very limited experience so far. However the experience so far is that DR isn't changed so there isn't an interoperability issue.
Siemens	Not known. Apart from some small scale trials, we have only recently started installing Advanced Domestic meters, so it is too early for us to say, although it does seem likely that the same issues will be seen.
EDF Energy	<p>We are not aware of any similar issues being experienced for ADMs that are being installed by Suppliers as part of the Foundation phase of the smart metering rollout. This is because the model being used for these meters is to use a central communications provider (the Smart Metering System Operator or SMSO) to communicate with a meter rather than this being done by Suppliers, MOAs or NHHDCs. Where there is a change of Supplier the SMSO will remain as the party communicating with a meter, if a gaining Supplier should choose to operate the meter remotely (which they are under no obligation to do where the meter is not registered in the DCC) then they will contract with the SMSO and establish the relevant interfaces with that party to be able to communicate with the meter, via the SMSO's head end systems. As there is no change to the party undertaking the communications with the meter on CoS/CoA there are no interoperability issues.</p> <p>We understand that it is possible for an ADM to be migrated from one SMSO to another (although we are not aware of this actually taking place), if this were to be the case then this would occur as a managed migration of the relevant details (including security information) between those SMSOs, this should then mitigate the risks of data not being received or being corrupted as part of that process.</p> <p>We believe that it should be considered whether such a central communications model (possibly under the DCC) might be a viable</p>



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	<p>solution to the issues of AMR interoperability. A central party providing communications to AMR meters that NHHDC and MOAs are able to access to be able to undertake their roles in regards to those meters would resolve the interoperability issues that are currently being experienced.</p>
IMServ	<p>The issues will occur anywhere that commercial and industry needs overlap, in this case Advanced Domestic Meters are identical to NHH or HH meters and therefore any issues that exist in interoperability are across the board.</p>
British Gas	<p>None provided.</p>
ScottishPower	<p>We are unable to quantify this using the data available to us.</p>



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Additional Comments

Responses

Respondent	Response
British Gas	<p>In addition to the comments in the questionnaire we believe it important to highlight the impact that interoperability potentially has on the Customer's perception of the change of supplier process and smart in general.</p> <p>Without a working end to end process and the potential for loss of usage data/functionality this could damage consumer confidence in smart metering.</p>
Clarity Data	<p>The main observation from colleagues relates to:</p> <ol style="list-style-type: none">1) The inability of the DC to validate NSFCs due to variation in convention across, and even within MOPs2) The so called 'Memory Address' is populated in different ways across meter types. Clearly it must be possible to create a 'look up' of what is intended to be conveyed by each address but translations do not appear to exist. Where the MOP/DC remains constant this is not an issue but where a new DC inherits the conventions of a MOP/meter type combination then the meaning is not always clear. To quote "I think a good first step would be for them to collate all known memory address conventions from all agents. This could form the basis of a global lookup table that agents can use to lookup meanings. It would then become easier for all to align to a standard. The lookup table could even become part of MDD".