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| Your reference | Colin Sausman 18 Aug 2011 |
| Our reference | Ofgem Com Interop. |
| Date | 14 Oct 2011 |

Attn Tabish Khan

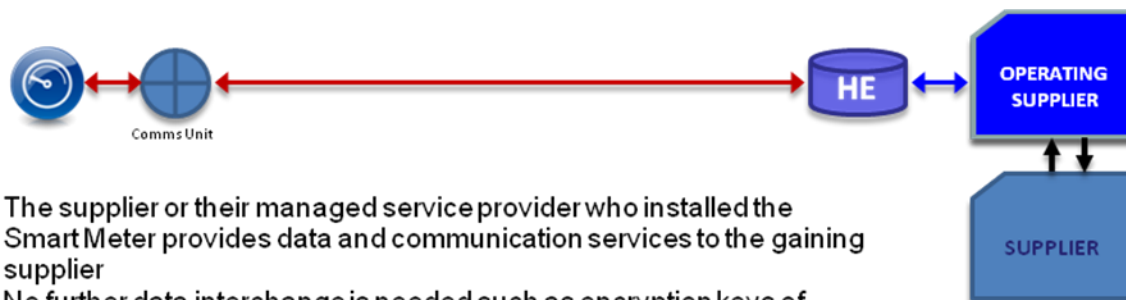
Dear Colin

Commercial interoperability: proposals in respect of managing domestic customer switching where meters with advanced functionality are installed

We welcome the opportunity to comment on the Proposed Licence Conditions as they relate to interoperability contained in your letter dated 18 August 2011.

As established by DECC's Business Process Design Group (BPDG), Siemens concurs with the view that there are two process scenarios which could support interoperability in the foundation market.

Scenario 1 – Continuous Service Provision from Installing Supplier



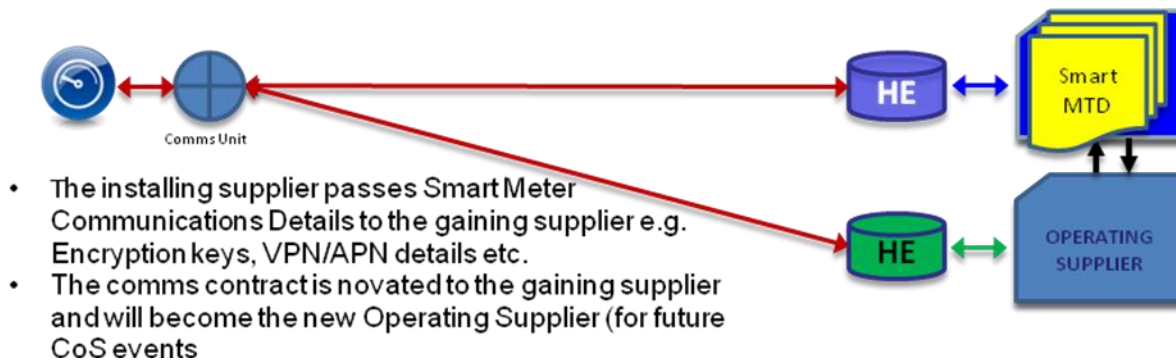
- The supplier or their managed service provider who installed the Smart Meter provides data and communication services to the gaining supplier
- No further data interchange is needed such as encryption keys of VPN/APN details.

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Scenario 2 – Smart Services transfer to a new service provider as part of the CoS process



- Siemens strongly advocate Scenario 1 as the only effective means of delivering smart service continuity, and hence interoperability, is for the party providing data services (Head End and Translation Services etc) for the initial meter installation to continue to provide this service across Change of Supplier (CoS) events.

We believe this to be the simplest approach for a market with a finite lifespan (ending with the implementation of the DCC in 2014), which will deliver effective service continuity across CoS events without compromising security and data access controls, which would occur in scenario 2 through the transfer of critical security data between market participants, and supports multiple access to smart metering systems from different service providers/suppliers.

The need to support different suppliers accessing the same communications hub to transact with the gas or electricity meter must be achieved in the foundation market. Even if suppliers target their dual fuel customers for foundation meter rollouts customer switching and industry processes will create the scenario where a customer has different suppliers for each fuel.

Specifically, the gas and electricity change of supplier processes operate on different timelines, so there will always be a period of time when different suppliers are providing each fuel to a consumer even when the consumer is looking for a dual fuel supplier switch.

This approach is also best matched to the DCC end design, where the DCC will provide service continuity across CoS events, and represents no change to industry ways of working and no development to supplier systems and processes to implement.

Key business processes such as opening and closing reads to support a CoS event can be readily supported when the managed service provider – with appropriate linkages into registration systems – continues to provide the managed service to the gaining supplier.

From a security standpoint, Siemens recommended approach ensures centralised access control and encryption key management which we believe represents best practise for the foundation market. Again this approach is aligned with future DCC ways of working.

Siemens have considered the concept of switching services from one service provider to another in great detail and conclude that this approach presents a host of issues:

- Controlling access to smart meters and IHD's for different managed service providers/suppliers through the same communications hub is complex and will result in a more expensive comms hub solution.
- Push messages from the meter e.g. tampers and alerts cannot be confidently routed to the correct managed service provider/supplier as the comms hub will not know who to send the message to.
- The above two points represent data access and privacy issues which are part of the rationale for the need for the DCC.
- Transferral of encryption keys adds further complexity to the Change of Supply process and will compromise security both in the Foundation Market and ultimately for the DCC.
- The need for shared keys (to accommodate multiple service provider access) compromises data security and privacy.

- Obtaining accurate opening and closing reads will be dependent upon key exchanges coinciding precisely with change of supplier events. It is unclear how the retrieval of historic data can be managed without some form of central control (which scenario 1 can provide).
- Technical process issues around transferral of VPN's or the creation of multiple APN's against the same SIM are introduced.
- Suppliers will need to have commercial relationships in place with all communication providers to allow contracts to be novated.
- The process complexity, security and data access concerns can only lead to a compromised customer experience.

Our responses to the questions in your letter are set in the context of supporting Scenario 1 above for the Foundation Market for 'compliant meters', through an outsourced independent meter service provider model (MSP). We also believe that in most cases the scenario 1 solution can be applied to ADMs. We acknowledge that some suppliers currently undertake all these services "in house" and for these we believe that a ring fenced MSP within the supplier's organisation is needed to ensure data access rights are appropriately managed across Change of Supplier (CoS) events.

We have outlined this MSP model in appendix 1 and we would be very pleased to discuss with Ofgem how we think this could operate in the market. We have created this model and the first phase of working commercial service proposition to support the roll out of smart meters in the Foundation Market with an arms length MSP contract for suppliers. Whilst we propose to promote our model and service to the market in the near future please would you treat it as confidential until we advise you hopefully in early November.

Question 1: Do you agree that suppliers should be required to inform the customer of any potential loss of services before a switch takes place?

We believe that it is the interest of all parties that are investing in the delivery of smart metering in GB to support the functionalities of services delivered by smart meters. It would send a very negative message to customers during the Foundation Period that the introduction of smart meters could lead to degradation in services after customer switching. If this was a common situation for core features of a smart meter then we suggest that suppliers behaviour was creating a barrier to supply competition. Therefore we believe that where a losing supplier has itself installed smart meters then it should make the core smart services available to the gaining supplier who should be required under the supply licence to make use of the service at a cost that is no more than the installing supplier is paying.

On the basis of our proposals above and as set out in Appendix 1 we do not agree with the premise that there could be a degradation in service following a customer switch and therefore suppliers should not need to warn customers of this possibility, unless there are particular solutions that are technically unsupportable i.e. not potentially compliant. Please refer to the introduction and to Appendix 1 where we describe what should be supported.

Question 2: Do you agree that the old supplier should be required to disable any misleading information prior to the switch taking place?

Yes, we agree that any supplier-customer specific information displayed on a smart meter should be cleared down by the outgoing supplier. In particular all pricing and branding information displayed on the meter and transmitted to the IHD should be able to be cleared down. We see this as a very important requirement as any failure to do this will potentially cause customer confusion leading to complaints which could ultimately have an adverse impact upon the roll-out programme. If an IHD has been used, where updating the supplier information is not possible, then the installing supplier who provided it should be required to offer to supply a new display to the gaining supplier with the required features.

Question 3: Do you agree that the old supplier should be prohibited from removing historic consumption data from the meter?

Yes – the Foundation Market should adopt post DCC principles that the customer should be able to access consumption data irrespective of who the supplier is. Customers need to be able to see comparative energy data day by day no matter who supplied it or at what cost.

We also believe that the license condition should include the requirement for Suppliers to be required to seek the customer's permission to access interval consumption data (if this is to be a post DCC data privacy requirement.)

Question 4: Do you agree that suppliers should not be allowed to charge customers for the replacement of a prepayment ADM in these circumstances?

Suppliers should not charge for changing prepayment meters or installing them. Currently we do not believe suppliers charge to change a meter for tariff purposes.

In fact, our proposal for the smart metering service provider to continue to provide services to the gaining supplier makes it eminently possible for pre-payment services to smoothly transfer as well.

Question 5: Do you agree that the old supplier must make available to the new supplier all the information they would need to help maintain the provision of services based on ADM functionality?

Yes.

– We believe that this is best achieved through adopting the principle that the installing service provider continues to provide services to gaining suppliers – supported by a central register to ensure access controls and Change of Supplier events are managed effectively.

This can be achieved through updating and interfacing with supplier registration systems – an approach currently being developed by Siemens and C&C Group.

Establishing effective access control mechanisms in the foundation market requires all smart market participants to adopt the same way of working – and Siemens intend to promote their proposal to all industry parties. We would be delighted to walk Ofgem through the proposal.

We believe the best way to support this processes is for suppliers to use independent meter service providers (MSP) as operators of the Advanced Metering Infrastructure (AMI i.e. Translation services, Head Ends, routers and communication infrastructure provision) which will of itself create a separation of supplier systems from the AMI. The installing supplier would, by contract, require its MSP to register the meter systems in a central data base e.g. ECOES and SCOGES (or a separate system linked to these) so that on the initiation of the change of supplier process the MSP could pro-actively manage the changeover, making itself known to the supplier and its preferred MSP (if the supplier wished to only have one interface). This solution means that the MSP party commissioning and operating the ADM remains the same throughout its life (in the same way as the DCC will do).

Question 6: What kind of information would the new supplier need access to in order to ascertain whether they can maintain advanced services?

The gaining supplier will require both technical and commercial information relating to the meter it is taking over.

Commercial: we suggest that the installing supplier requires its MSP to publish its terms and services to the Supplier community. Each supplier is then free to agree its services with the MSP as a framework contract. The information required by the supplier and the MSP will be similar to that exchanged between suppliers, meter operators, PPMIPs and Data Collectors in the non-half hourly electricity and the gas market

Technical: the level of technical information will vary between ADMs and compliant smart meters (or potentially compliant). We suggest there would be a classification of the meters on circuit as to their supportable capabilities and the MSP would provide the class of meter that the gaining supplier is acquiring. The tariff configuration of the meter would be available through the normal meter operator flows. In practise there should be no situation where the same level of service cannot continue to be supported by an MSP unless the supplier is not able to provide instructions to the MSP.

Question 7: Do you agree that a large supplier should make available on request all services that a new supplier would reasonably require to maintain some or all of the services relating to ADM functionality?

Yes, and we believe this should be made available through continuing with the original service provider. To give the new supplier confidence that access to data by the original supplier could not continue we advocate that installing suppliers provide these services on an arms length basis via an independent Meter Service Provider as discussed elsewhere in our response.

Question 8: Do you consider that the proposed volume thresholds are appropriate? If not, please suggest what would be more appropriate thresholds.

We agree a de minimus level needs to be set such that a supplier with a small trial would not be required to provide a service, the volumes suggested seem reasonable. However, not all “Smart” meters installed to date are really capable of full interoperability even though larger volumes of meters have been installed. One key area is the provision of interoperable solutions for dual fuel installations; if the concept of keeping the support of these meters with the originating MSP is accepted (in some cases the MSP operation may have to be ring fenced within the supplier’s business) then many of the meters deployed should be available for a service support from the original supplier.

Question 9: What costs do you consider suppliers will need to incur to ensure compliance with the proposed licence conditions?

Suppliers would be faced with costs of interfacing with MSPs to provide set up data for meters they inherit (tariffs and pricing as a minimum) and receive meter readings. The electricity DTC already recognises the data retriever role code and the gas processes recognise a Meter Reading Agent (MRA) – therefore suppliers will need to ensure that their systems and processes can appoint a number of data retrieval agents or MRAs specifically for ADMs and smart meters.

With an outsourced model to an MSP additional costs would mainly be faced by the MSPs in building their own interface to suppliers and/or to other MSPs. Until the industry agrees some high level architecture it is difficult to put ball park figures together, but we would be willing to participate in a high level design workshop following which we could provide indicative incremental costs of interfacing with other suppliers or their MSP agents.

Question 10: Do you consider that additional incentives are necessary for suppliers to avoid ADM meter exchanges on a change of supplier where possible?

Yes. The licence motivates the installing supplier to provide a service to the gaining supplier but is silent on the terms of these services. We note Ofgem’s conclusion from the previous consultation with reference to supporting non-compliant meters but can see no proposals for licence changes to support the principle of maintaining a compliant or potentially a compliant smart meter following a change of supplier before the DCC is introduced. We refer Ofgem to the scenario 1 proposed model and suggest that suppliers should have no reason to not take a continuing service since most of the process of changing supplier and continuing operations are the responsibility of the continuing MSP. The only ongoing requirements of a supplier would be to:

- 1) accept regular meter readings (we suggest monthly) via D10 DTN dataflows from an electricity data retriever and meter readings in the format required by the gas supplier;
- 2) provide tariff price updates to the MSP but these could be via an email or similar notification for bulk application by DNO.

To further encourage gaining suppliers to take these continuing services to support pre DCC compliant meters we believe installing suppliers should have an obligation to provide terms, demonstrably, on the same terms i.e. costs and service levels per meter point as the installing supplier incurs. We understand that where these services are provided internally within the suppliers organisation it may be difficult to demonstrate that the costs are transparent and the terms to other suppliers are fair and equitable. To overcome this we advocate the outsourced approach through the use of independent MSPs both by the installing supplier and the gaining supplier. With this methodology there would be a clear audit trail of compliance with the licence obligation through equitable pricing to all suppliers. However, where an installing supplier has already built a very integrated approach then, where it can be demonstrated that robust access control can be achieved, the installing supplier should be required to set out the basis of its charging methodology and the cost calculations should be open to scrutiny by Ofgem.

We question the assumption by Ofgem that the installing supplier should be allowed to “deploy advanced prepayment technology that is not reasonably capable of being supported by other suppliers”. We believe that the proposed licence condition numbered 6) below would require the licensee to offer a service to support a prepayment meter (particularly the part we have underlined): *“Where a Domestic Customer with an Advanced Domestic Meter intends to effect a Proposed Supplier Transfer and the licensee has installed or arranged to have installed that Advanced Domestic Meter, the licensee on the request of the new Gas/Electricity Supplier must offer the new Gas/Electricity Supplier all such services as are reasonably required for the new Gas/Electricity Supplier to maintain part or all of the services related to the functionality of the existing Advanced Domestic Meter.”* As stated above, part of this obligation could be discharged through an outsourcing model, e.g. the provision of service that

receives requests from a supplier or a supplier's agent to pass top up payments to a ADM and which provides a service that assembles a set of data and messages from a supplier to configure an ADM as a prepayment or pay-as-you-go meter. This is a very similar approach to the PPMIP services currently provided by suppliers and Siemens today and indeed many of the data flows used to support the current services could be utilised by the suppliers and directed to MSPs.

Question 11: Do you consider that the measure outlined here places appropriate incentives on the installing supplier in respect of the costs of a meter exchange?

It should be noted that the additional costs of providing interfaces between MSPs and MSPs to suppliers will be a one off cost that MSPs will have to allocate over their estimated number of smart meter chargeable service days in the Foundation market (and possibly beyond) and suppliers will have to absorb these costs. It is difficult to estimate the volumes of meter deployments and the level of switching that will occur. In practise both levels may be relatively low, in which case it may well be cheaper for the installing supplier to absorb both the costs of changing the meter and the stranded cost of the initial ADM installation than provide a support service for gaining suppliers. However, if the SMIP is to gain customer acceptance and support from other stakeholders the Foundation Market needs to operate, from a customer viewpoint, in a similar way to how the enduring market is proposed to operate and this should be the overriding requirement in determining both the installing and gaining licensee's obligations.

The proposal to allow the incoming suppliers to change an ADM that cannot be supported by a prepayment service will:

- 1) cause significant nervousness in the meter funding market by introducing uncertainty to future income;
- 2) create an issue in maintaining the smart meter communication channel to the property since this may have been installed as "top hat" device on the electricity meter or even as an integrated module, which is subsequently removed by the incoming supplier leaving no communications to the gas ADM.

Overall we believe the license should clearly obligate installing suppliers to make available interoperable services, preferably through arm's length MSPs and for all gaining suppliers to be obligated to utilise these services.

Question 12: Do you consider that £60 represents an appropriate proxy for the cost of a meter replacement in these circumstances? If not, what would you consider to be a more appropriate amount?

The charge of £60 is a reasonable proxy for removing a dumb meter but it takes no account of the costs and delivery of the requirement for ensuring the smart data service can continue without one element of the smart metering element, namely the communication module or the power for it where it is part of the electricity metering system! Please see the answer to Q11 as we believe this charge alone is not an appropriate mechanism to incentivise the market to adopt interoperability.

Question 13: How long a lead time do you consider is appropriate for enabling suppliers to be compliant with the proposed licence conditions?

This is a difficult question but a minimum lead would be nine months . It should be noted that some MSPs and suppliers are building or have solutions available now to facilitate the market, although the market participants still have to agree, build and test interfaces. The provision of the prepayment element will undoubtedly take longer and therefore any licence obligation for prepayment should only apply once the installing supplier has begun installing prepayment ADMs or compliant smart meters.

Yours sincerely,

Duncan Southgate
Business Development Manager (UK)