

Intellect Response to Ofgem Annex 3: Communications Business Model October 28 2010

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Do you agree that access control to secure centrally-coordinated communications, translation services and scheduled data retrieval are essential as part of the initial scope of DCC?

Yes, Intellect members support this and acknowledge that it is essential in order to ensure the appropriate levels of security for the smart metering operation.

Some Intellect members have emphasised the importance of defining the relevant operational controls and security as soon as possible. They believe that putting these measures in place as part of the initial rollout is recommended to avoid any potential issues early in the project.

An assortment of Intellect members believe access control needs to be bi-directional to ensure that the industry has specific and role-based access to meter data whilst assuring that scheduled reads, alarms, configuration and firmware updates, as well as real-time messages, are provided only to the correct, validated and authenticated end-points. Access control must adopt the principle of "Defence in Depth" and include basic controls like gateways, firewalls and intruder management, as well as identification, authentication, authorisation and encryption.

It is important to note that access control is not only seen as applicable to the DCC operations, but should be managed by the DCC as an all encompassing framework and should thus cover all internal and external access to any part of the end-to-end system.

Suppliers or potential suppliers will need access to meter data to allow them to provide the most competitive tariff to their current or target consumers. This will require informed consent but must also include accountable access control to ensure that only valid and authenticated bodies have access to the data. Technologically this will prove challenging, with no centralised access control and meter data mastered only within the meters. The Programme should seriously consider including services such as registration and change of supplier as centralised functions, presumably as part of a DCC functionality set, from the outset to enable adequate protection.

The inclusion of remote disconnect functionality is a very positive step for the industry; however it also raises serious security concerns. A centralised access control service with enough supporting reference data within the DCC should provide the requisite control and protection necessary to ensure that consumers are protected from wilful or inadvertent threat of or actual disconnection.

Delivering this robust access control within the limited, short term technology and security architecture that is likely to be implemented during the interim period under the staged approach, will be challenging for the energy suppliers, especially when these solutions then need to be subsequently migrated to a central DCC service. This issue needs to be seriously considered, prior to a mandated roll out, to ensure consumer protection.

Do you agree that meter registration should be included within DCC's scope and, if so, when?

Many Intellect members believe that the registration should be included in the initial scope, believing that this will be a much simpler way of proceeding and more cost-effective in the long run.

The thoughts of a variety of three members follow.

Member 1

One member calls for the introduction of an early "prototype register" could have many advantages including:

- Identification of the data fields actually required, especially with reference to the various new devices in the system (e.g. WAN modem type).
- Opportunity to test correspondence between Registry data structures, and those produced by different suppliers and other participants in preparation for specifying the requirement for full automation
- Early experience of actual Registry usage patterns
- New source of information on actual switching rates, and patterns of consumer behaviour.
- Early measurable experience of the likely avenues for efficiency improvements over the old system e.g. 24-hour switching service
- Useful information on the *actual* deployment of smart meters, as opposed to some of the un-calibrated claims in the market.
- Opportunity to test the mechanisms for dual-fuel and non dual-fuel customers.
- Early preparation of a much tidier “smart legacy” data-set to transfer to the real Register, than would otherwise be the case. Ensuring cleanliness of in-coming data will be central to the success of the migration to the new Registry.

Member 2

Another member notes that the DCC will need continuous access to meter registration data so it makes economic sense for it to manage a central meter register. In addition, VEE - validation, estimating and editing should also be included in the initial scope of the DCC. If it is not, then all individual parties will need to continue this key process, which means each of them will have different view of the truth; it will generate chaos and sync issues between parties discussing who is right. VEE (at least a baseline) needs to be part of a central service to insure different parties are not forced to qualify errors in different ways and correct them with different rules.

Member 3

The meter registration process has a tight coupling with communications connectivity and establishing security credentials (via access control mechanisms), hence the processes need to be streamlined and integrated very carefully. If, initially, the DCC does not have responsibility for coordinating the registration process over the Data Transfer Network but this remains with multiple parties (meter operators and suppliers), then end-to-end service integration will be much more complex and will require appropriate testing time before commencement of operation. The interim arrangements that will exist pre-DCC would need to continue, with transition to the DCC as soon as practicable (subject to planning, suggest this would be within the first 12 to 18 months of operation of the DCC). In respect of the legacy data point in the Prospectus, a programme of work should be put in place to resolve this before either interim or DCC arrangements take effect - if not, then there is the risk that this will actually worsen during the interim period before transfer to DCC.

Should data processing, aggregation and storage be included in DCC’s scope and, if so, when?

Most Intellect members agree that data processing, aggregation and storage should be included in the DCC’s scope. However, there is a degree of divergence over when these functions should be included.

On the one hand, some Intellect members believe that these functions should be included from the outset. Those who believe this suggest that it will be cheaper and quicker to have all these functions included from day one.

On the other hand, another Intellect member believes that the functions should be incorporated after a 2 to 3 year period. They think that incorporation should begin once a detailed assessment of the costs and risks associated with maintaining these functions across multiple parties as opposed to the DCC has taken place.

Do any measures need to be put in place to facilitate rollout in the period before DCC service availability and the transition to provision of services by DCC, for example requiring DCC to take on communications contracts meeting certain pre-defined criteria?

One Intellect member notes that numerous measures could be created but that an approach that focuses on delivering early targets, primarily through a programme of pilots, would simplify interim contractual and technical complications and also form a key part of such predefined criteria, thereby reducing the potential negative impact and uncertainty that such arrangements may have on the final formulation of the DCC.

Another Intellect member notes that the novation of potentially many contracts across energy suppliers could be challenging for the DCC. Instead, they think that the energy suppliers should develop Transition Plans in collaboration with the DCC and should take responsibility for executing the transition arrangements to the DCC. To simplify transition, it would be helpful if the pre-DCC communications contracts were structured such that there were common service level agreements (and open interfaces) supported by broadly equivalent terms and conditions – a means of achieving these would be to include their definition within the modified supplier licences, following consultation.

Finally, a collection of members agree with rollout targets for energy suppliers, but recommend that the risk/reward elements are built in against key indicators – for example, over-delivery and increased consumer satisfaction. The same members also recommend that the volume of early installs is managed carefully to ensure that logistic and economic difficulties are not introduced by potentially having a large number of stranded meters before their specifications are baselined.

Do you agree that the licensable activity for DCC should cover procurement and management of contracts for the provision of central services for the communication and management of smart metering data?

Yes, most Intellect members agree with this.

Some Intellect members think it should go further. For example, one member company thinks that it should also cover the responsibility for the aggregation of all electrical and gas consumption data, including those services which it is not sought to procure via its license.

Do you consider that DCC should be an independent company from energy suppliers and/or other users of its services and, if so, how should this be defined?

Yes, Intellect members agree that the DCC should be an independent and not-for-profit company.

Intellect members are also keen to emphasise the importance of the company being impartial and avoiding any conflicts of interests with any parties engaged within the Smart Grid and Smart Metering value chain.

One Intellect member has suggested that it might be useful to define the DCC based on the competencies that it is allowed to muster as part of its operation. They state that examples of these competencies may be: management, Information coordination, advisory services, legal and contractual services. It should seek expressly to exclude any of the following competencies: Energy generation, distribution or supply; network design, construction or operation, equipment (metering, telecoms, power, computer, electronic) design, manufacture, sale or leasing etc.

Do you have any comments on the steps DCC would need to take to be in a position to provide its services and the likely timescales involved?

One Intellect member noted that the DCC would need to enter into a well managed and competent environment, where much of the learning associated with its operation has already been determined, through, for example, a series of significant pilots. They note that without the use of pilots prior to the period suggested within the prospectus they feel that the timescales will be extremely challenging. It would need to be in a financially secure environment, and have the ability to secure relevant expertise and gain access to relevant systems within the value chain. The steps that would subsequently be taken by the DCC would be dependent on the current state of rollout and the subsequent rollout strategy and plan. The details of these cannot be determined beforehand, only the correct enabling environment to enable achievement of goals.