

Option 1 - Initial Scope	
Overview:	This option represents the minimum change to industry systems that would allow DCC to provide centralised communications access to all smart meters. In this option it is assumed that Project Nexus will be implemented in the gas industry prior to DCC Go Live: this project will result in the replacement of xoserve's registration and settlement systems.
Services supported:	All services listed in the Service Catalogue will be supported with the exception of 'evolved smart grid' services (e.g. remote management of smart appliances).
DCC Systems:	<p><i>Secure access control:</i> Suppliers (and their agents), network operators and ESCOs will submit service requests which will be validated by DCC. Suppliers will be allowed to access meter points for which they are the registered supplier; agents will be allowed to access meter points for which the supplier has granted them access; network operators will be allowed to access meter points within their distribution areas; ESCOs will need authorisation from the customer to access a specified meter. Each type of service user will be restricted to a designated set of service requests (e.g. network operators will not be permitted to submit top-ups to a PAYG meter). DCC will perform security monitoring to provide continual assurance of WAN integrity.</p> <p><i>Translation:</i> Service requests will be transmitted to DCC via the existing market message systems (DTN & the replacement for UKLink). DCC will utilise 'head-end' software supplied by meter manufacturers to translate these requests into the proprietary format used by the specified meter. Data received from meters will be translated by the 'head-end' from the 'meter format' to standard market messages for onward transmission to service users.</p> <p><i>Scheduled data retrieval:</i> Service users may submit to DCC a schedule of regular transactions (e.g. monthly meter reads) that DCC will execute. Service users may also submit 'diarised events' (e.g. to update tariffs on a specified date, to perform routine firmware upgrades) which DCC will execute in line with SLAs. As part of its operational management, DCC will also manage traffic to/from meters and to/from service users so as to optimise its use of comms networks: this may require it to 'buffer' data received from meters for onward transmission to service users. Data will be buffered until a confirmation has been received from the recipient that the data has been received.</p> <p><i>Reporting, invoicing and financial management:</i> DCC will require a suite of 'internal' systems to allow it to manage its operations. These systems will include the preparation of service invoices and management information (e.g. to monitor performance against SLAs), and processing DCC financial transactions and administration.</p>
Source of supplier registration data:	<p>Under this option DCC will not operate its own supplier registration system and will need to access meter point / supplier registers from external information providers. The ECOES (electricity) database provides a 'window' into the supplier registration systems operated by DNOs and under this option DCC will access electricity supplier registration data from ECOES. For gas, it is assumed under this option that Project Nexus will have created a single register of gas supply points and that DCC will access this.</p> <p>DCC will need to store communications details in respect of comms nodes and devices at each node and this will identify the 'head-end' applicable to each device: hence these details need not be stored in the existing registration systems.</p>
Change of Supplier / Tenancy arrangements	The existing CoS/CoT procedures will remain in operation. The meter point record will need to identify that a smart meter has been installed and is being read by DCC rather than by a traditional Data Collector.

New connections:	The existing procedures for issuing MPAN/MPRNs will remain in operation -all new connections will need to be fitted with a smart meter. The meter point record will need to identify that a smart meter has been installed and is being read by DCC rather than a traditional Data Collector.
Settlements:	The existing settlement procedures will remain in operation. <i>[Smart electricity meters can be treated as half-hourly meters for electricity settlement and will need to be identified as such in the meter point register.]</i>
Pay As You Go	DCC will support the PAYG services listed in the Services Catalogue. Suppliers will transmit messages to DCC via DTN and the replacement for UKLink (new message formats will be introduced to enable this). Suppliers will be responsible for recording whether a smart meter is operating in PAYG or credit mode and ensuring that PAYG messages (e.g.top-ups) are only sent to meters operating in PAYG mode.
Metering agents:	The 'supplier hub' principle will continue to apply with suppliers deciding whether to appoint third party agents or to perform activities through internal business units. Accordingly the DCC may receive service requests either from suppliers or their agents.
Message transfer to service users:	The existing market message systems (DTN & the replacement for UKLink) will be used to carry all messages between DCC and service users. Changes will be required to some message schemas to add new data items and some new flows will be needed (e.g. to handle PAYG transactions).
Smart grid functions:	Services to be supported under this option will comprise: <ul style="list-style-type: none"> • Ad hoc power quality reads (single or aggregate values) • Transfer of alarms to network operators
Data managed by DCC:	DCC will maintain a database of all sites where there is at least one smart meter. This database will maintain: <ul style="list-style-type: none"> • The comms address of the WAN comms unit • The devices attached to this node • Technical details of each device that are essential for DCC operations (e.g. 'head-end' type) • The 'lead supplier' for the site (i.e. gas or electricity) <p>Sites/devices will be added to DCC's database as and when meters are installed – there will be no bulk migration of data from existing systems. DCC will not maintain asset management-type data relating to the meter such as maintenance activities undertaken.</p> <p>DCC will retain records of messages received / transmitted (including requests which fail authentication) so that it can provide audit information on requests / responses but it will not retain any transaction data (e.g. meter readings).</p>
Treatment of 'early smart' meters	'Early smart' meters will have been recorded in the appropriate registration system at the time they were installed. An 'early smart' meter will only be entered into the DCC database when it starts to communicate via DCC (rather than direct to the supplier). Only those 'early smart' meters which comply with the approved technical specification will be eligible for adoption by DCC.
Non-domestic customers:	DCC will only act as the communication services provider for non-domestic customers if the supplier elects to use DCC. As for domestic customers, if the supplier uses DCC then DCC will be recorded in the meter point register as the appointed Data Collector. If the supplier decides to arrange their own comms service then the Data Collector agent field will be coded to reflect this.
Security standards:	To be completed
Other features:	To be determined