Data Communications Company

Factsheet

Building a smart metering network for Great Britain

Great Britain faces an energy trilemma – the need to reduce carbon emissions, achieve security of supply, and ensure that consumer energy costs do not skyrocket.

Part of the Government's response to this challenge has been to champion the introduction of smart meters to replace traditional gas and electricity meters. Smart meters offer a wide range of benefits to consumers, the energy industry and the country as a whole.

Consumers will be provided with near real time information to help them them manage their energy use, save money and reduce emissions. Energy suppliers will be able to forecast demand better, reduce their costs and use smart meters as a platform to develop more innovative services, while our networks will be able to use smart metering data to improve network management and make informed decisions on investment, including the development of smart grids.

Government has set energy suppliers the target of rolling out 53 million smart meters to 30 million consumers and micro businesses across Great Britain by the end of 2020. One of the main challenges associated with the roll-out is the need to create a common, smart-metering platform which all energy suppliers will use to communicate with meters. It must be secure, protect personal data and ensure that consumers only have to have their meter installed once.

This is where the Data and Communications Company comes in.

Role of the Data and Communications Company

The Data and Communications Company (DCC) is responsible for establishing and managing the common infrastructure necessary to support the main roll-out of millions of smart electricity and gas meters. It forms part of the Government's wider Smart Metering Implementation Programme. Funded by the energy industry, this infrastructure will connect smart meters to the business systems of energy suppliers, network operators and other authorised service users. DCC offers a secure, consistent service and avoids the complexity and duplicated costs of energy suppliers installing their own systems. The DCC system will transform how energy is supplied and give consumers greater control over their energy use.

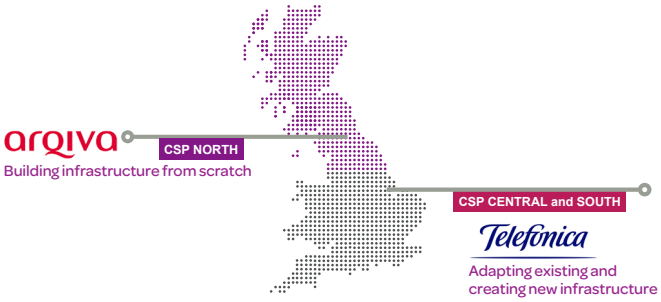
Who's who?

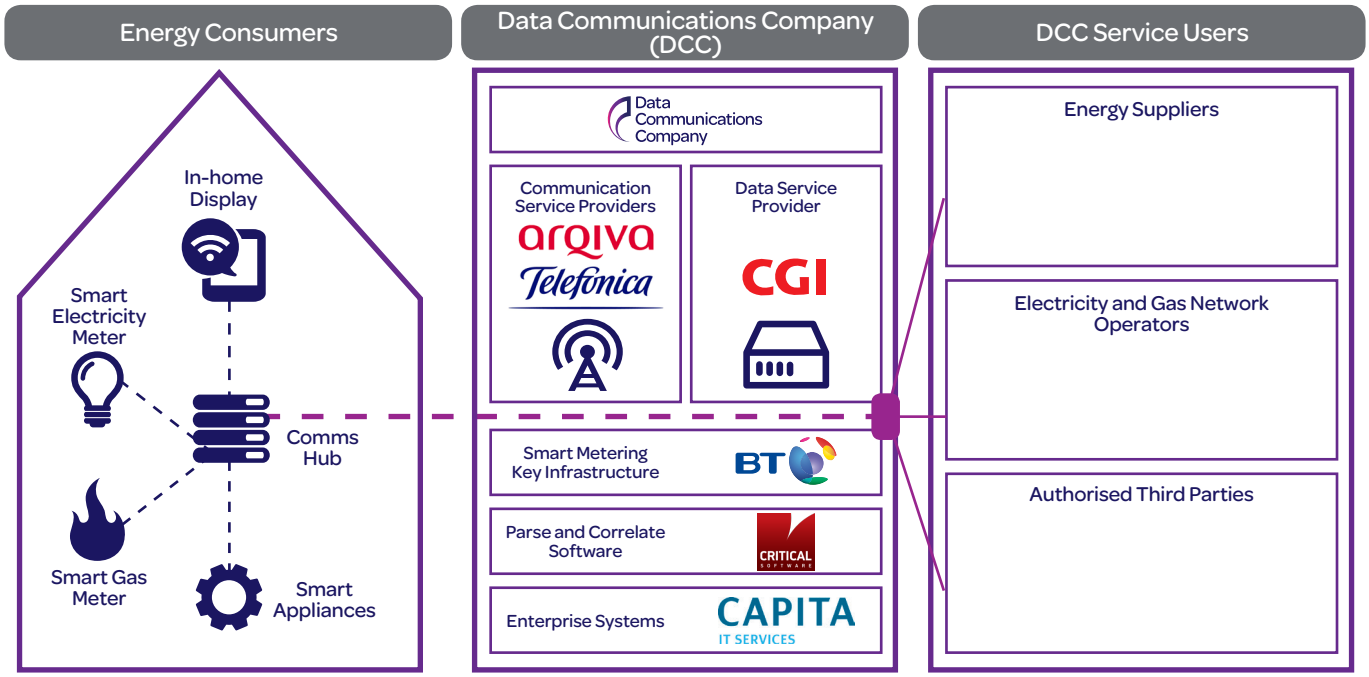
Smart DCC Ltd (DCC) operates under the Smart Meter Communication Licence which was granted by the Department of Energy and Climate Change (DECC) and is regulated by Ofgem. The licence allows us to establish and manage the smart metering data and communications infrastructure. Under this licence, we must also be a Party to and comply with the Smart Energy Code (SEC) which suppliers, network operators, other Parties and DCC users also need to comply with.

The network is being delivered on the ground by two Communications Service Providers, Arqiva and Telefonica, and a single Data Service Provider, CGI. Arqiva is installing the network infrastructure in the north of England and Scotland while Telefonica is installing across central and southern England and Wales.

Other providers are BT, responsible for the delivery of Smart Metering Key Infrastructure, Critical Software, responsible for Parse and Correlate software and Capita IT Services who will provide enterprise systems.

Together, they make up DCC.





What is the DCC infrastructure?

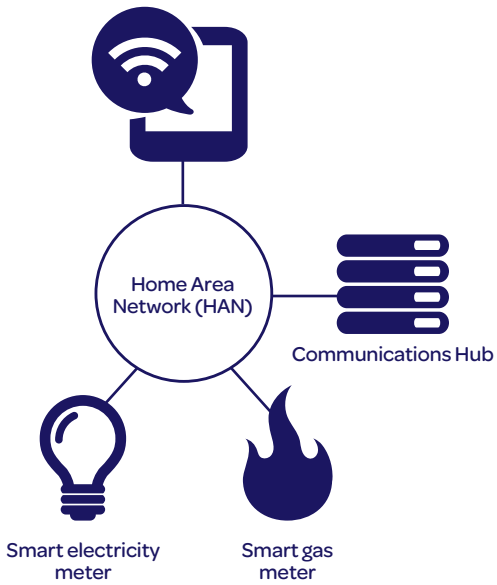
DCC is managing the delivery of the Wide Area Network (WAN) across Great Britain to provide 99.5% coverage in the North Region and 99.25% coverage in Central and South Regions by 2020, working with its Communication Service Providers, Arqiva and Telefonica.

WAN is a telecommunications network that extends over a large geographical area. It is used to transmit data over long distances and between different computer systems.

Every home and small non-domestic premises will have the following devices installed once smart metering is rolled out in Britain:

Homes will be fitted with smart electricity and gas meters, an In Home Display and a Communications Hub. These will be installed by the energy suppliers because they have a direct relationship with their customers.

The Communications Hub, connected to business systems of energy suppliers and other Users, connects to the Smart Metering Wide Area Network (WAN) used to send messages between energy suppliers and smart meters. Smart meters and In Home Displays connect into the Home Area Network (HAN).



Security at the core of the network

We take security and privacy seriously. Smart meters will operate on a secure system, based on national and international standards, to ensure a consumer's data is visible only to their energy company, network operators, and authorised parties where the consumer has given consent. All messages containing energy consumption data will be encrypted, which only authorised users will have access. DCC does not store, analyse or have access to a consumer's data.

Privacy is a consumer right...

We recognise the importance of protecting consumers' privacy. Strict rules are in place to give consumers control over who can access their energy data and for which purposes. Energy suppliers will be allowed to access monthly data for billing purposes but consumers must give their consent to sharing more frequent and detailed data.

...And so is safety

Smart meters use radio waves to allow remote readings to be taken. These waves are very common and are used to broadcast radio and television programmes, wireless computer networks and mobile phones. Public Health England, experts in this field, have concluded that radio waves produced by smart meters do not pose a risk to health.

The future

Alongside the main DCC infrastructure, we are working on the following projects:

Enrolment and Adoption – large numbers of consumers have already had smart meters fitted. These are the foundation meters (SMETS1). New generation meters (SMETS2) will be installed in homes and small non-domestic premises once the DCC service is rolled out. Initially, only SMETS2 meters will work with the DCC solution but SMETS1 meters will be adopted and enrolled into DCC services at a later date to ensure that these customers benefit from smart services. For more information about enrolment and adoption of SMETS1 meters, have a look at our factsheet

Next day switching – one of the benefits of the DCC system is that it will make the switching process faster and more reliable for consumers who will be able to switch their energy supplier the next day. This will be achieved by replacing the existing but separate gas and electricity switching services with a new national centralised switching service, run by DCC. We want consumers to benefit from these new arrangements from 2018 at the latest.

Dual Band Comms Hubs – the Communications Hubs that will be rolled out in 2016 will have one radio Home Area Network frequency which means that in some homes, where for example the meters are located far from the Communications Hub, it might be difficult for the Communications Hub to receive and read messages. The solution is a dual band frequency which will mean that data can be easily transferred from the meter to the Communications Hub through the HAN and into the WAN.

For more information

Please contact DCC at contact@smartdcc.co.uk or visit www.smartdcc.co.uk

October 2015
www.smartdcc.co.uk