Department
of Energy &
Climate Change

The GB Smart Meter Roll-out

European Conference on Smart Metering Deployment in the EU

The GB approach

- Features of the GB smart meter roll-out:
  - Government mandated
  - Supplier–led
  - Dual fuel (i.e. gas and electricity)
  - Utilising a central data and communications company (DCC)
  - **Offering every consumer an In-Home Display (IHD) to encourage behaviour change**
  - Consumer at heart of roll-out e.g. centralised consumer engagement, Installation code of practice, data privacy legislation
  - Supports a smart prepayment solution
  - Supports future smart grid applications (TOU tariffs, auxiliary loads, home automation)

- Smart Metering Equipment Technical Specifications (SMETS) will ensure that equipment deployed by different suppliers will be inter-operable, creating no hurdles to effective competition

- The central hub approach will facilitate non-discriminatory access to smart meter functionality and data where the consumer has given consent

→ **An explicit focus is put on consumer engagement and realising consumer benefits**

The GB smart metering system
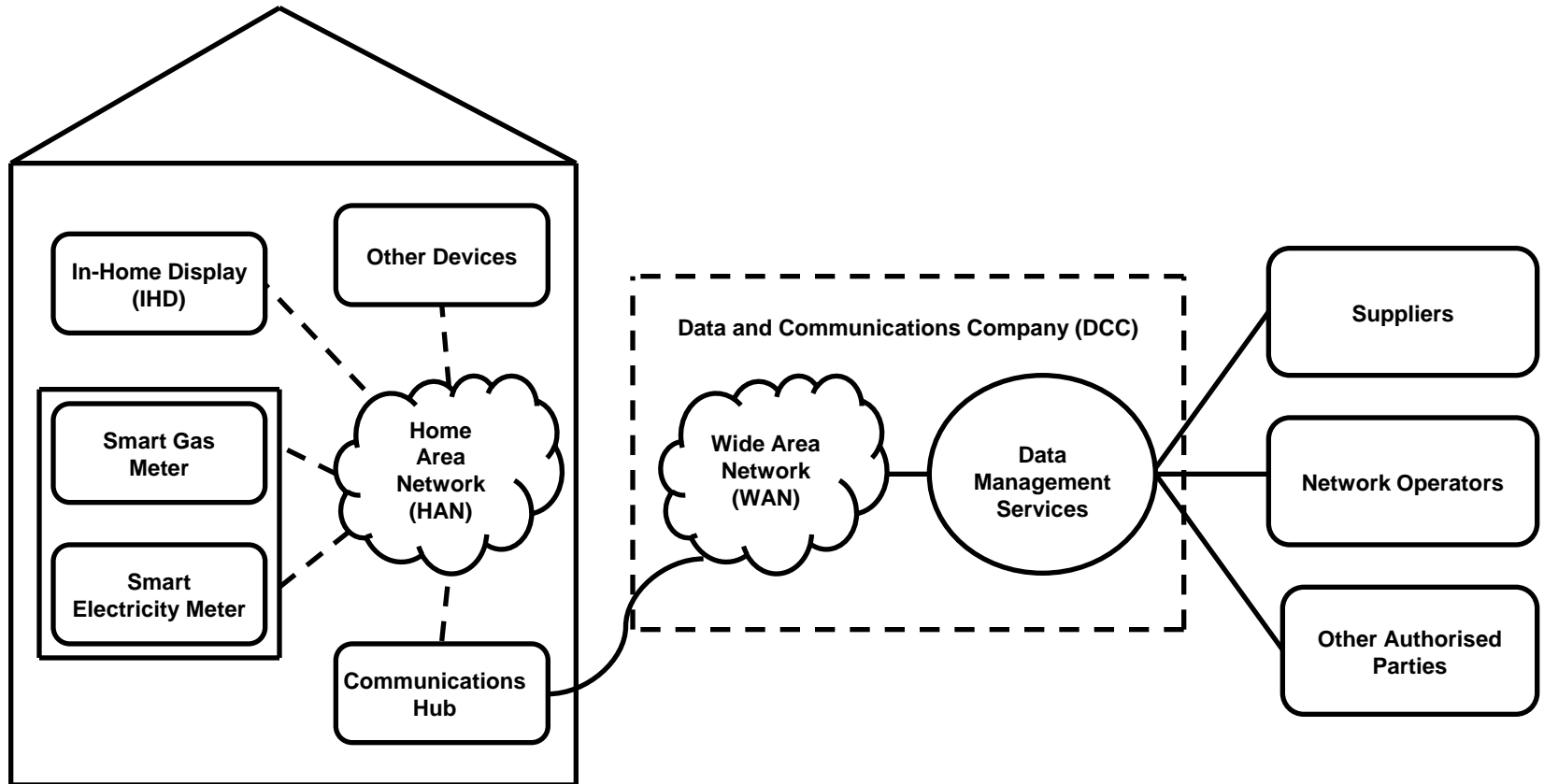
Roles and responsibilities

- Government
    - Smart meter roll-out takes place and is complete by 2020
    - Industry has the right obligations and incentives to deliver in a way which benefits consumers and wider interests such as Smart Grid
    - The overall system is smart and interoperable, supporting and enhancing competition and facilitating faster switching
    - The overall system is secure and data privacy requirements are embedded

- Industry
    - Suppliers
        – Planning and delivery of installations, provision of smart meters and IHDs
        – Upgrading internal systems and processes to be able to realise smart benefits
        – Engaging customers on smart meters, including on energy efficiency, to meet new code of practice
    - DCC
        – Provision of communications hubs and management of communications and data services
        – Provision of central and non-discriminatory access to data – where consumer has provided consent
    - Network companies
        – New data and messaging for network management
    - Energy services market
        – Exploit new opportunities

- Ofgem
    - Regulatory oversight

- Central Delivery Body (CDB)
    - Engage consumers and raise awareness for smart metering, including harnessing third sector activity

Data access

- Individuals' consumption data is already considered personal data under existing data protection regulations (Data Protection Act 1998)

- In addition new smart specific data privacy requirements in Smart Energy Code and in suppliers' and network operators' license conditions

- The Government has put in place arrangements allowing consumers to easily access their own data and giving them control over who else can access their data:
  - The supplier will only have automatic access to data required for discharging their regulated duties (e.g. monthly reads for billing); consumer has to be given opportunity to opt out of daily reads and needs to actively provide consent for more frequent reads (up to half-hourly)
  - Network operators will only be able to access detailed energy consumption data (more frequent than monthly) without consent if they have had plans for aggregation approved to address potential privacy concerns
  - Other interested third parties – once consent by the consumer has been given - can access consumption data either via the DCC (if they are DCC users) or the HAN

Security

- Security arrangements for smart metering have been developed in consultation with leading experts from within industry and Government and are underpinned by a full security risk assessment

- The security architecture aims to ensure there are no single points of failure within the system as a whole

- Only DCC users (suppliers, networks, authorised third parties) are able to access the smart metering system and, to become a DCC user, organisations must first undergo a security assessment

- DCC users will be subject to security obligations that are proportionate to their rights and capabilities under the SEC, which are based on international standards and common industry good practices including the ISO/IEC 27000 series

Lessons learned

- Consumer is central – many benefits can only be fully unlocked if consumers change their behaviour, so one main challenge is raising awareness and generating buy-in

- Close engagement with all other stakeholders – cooperation with energy industry in GB (e.g. on technical specifications) has proven very successful

- Reflect broad spectrum of challenges – technical, commercial, regulatory, economic, behavioural sciences - by a multi-disciplinary approach to the system design, with close cooperation between experts in different fields

- Future proof the system – ensure that capability to support future applications is built in (e.g. functionality and headroom and scalability in communications solution for future demand side management)

- Future proof the governance arrangements – SEC will ultimately be industry owned, i.e. parties can bring forward modification proposals which will then be considered by the regulator