DCC Boxed
Policy Document

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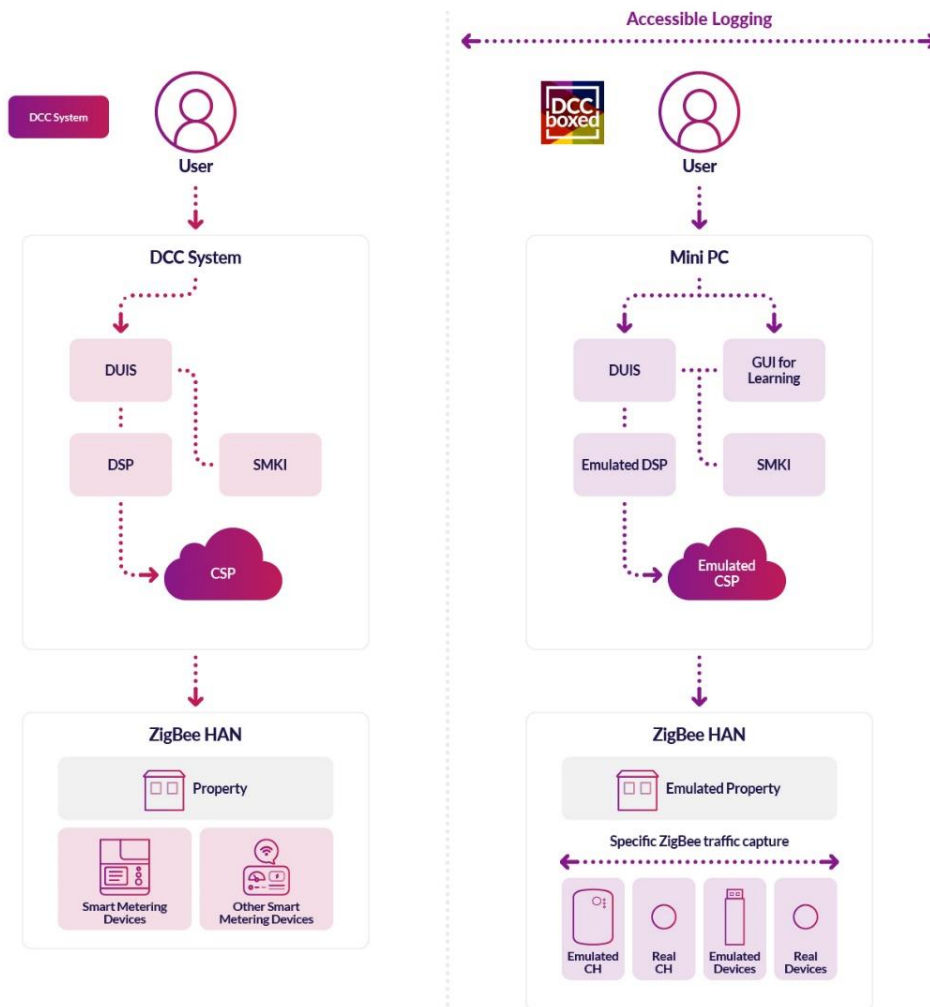
1. Background

1.1. About this document

This document is the 'DCC Boxed Policy Document' (the Policy). The Policy is required under the Smart Energy Code (SEC) to be developed and made available via the DCC Website. Its purpose is to describe the provisions and allocation requirements for DCC customers who wish to purchase DCC Boxed and supporting kit.

1.2. What is DCC Boxed?

DCC Boxed is a testing tool which emulates the end-to-end DCC system.

Currently, a User wishing to test its systems or devices against the DCC Systems must do so through remote or in-situ testing as set out in SEC Section H 'Testing Services' and SEC Appendix J 'Enduring Testing Approach Document' (ETAD). These include a range of associated User-entry and connectivity steps which take time and incur cost.

The DCC has developed DCC Boxed as an expansion from the existing Great Britain Companion Specification (GBCS) for Industry (GFI) toolset. DCC Boxed was developed to meet the need to enhance the existing GFI tool to provide a holistic testing environment beyond the Home Area Network (HAN).

Data Communications Company

DCC Boxed emulates the DCC end-to-end SMETS2 Smart Metering System in a non-regulated environment to allow Participants to perform such actions as testing, validation of interoperability and development of new products in this risk-free environment. DCC Boxed contains both software and hardware components in a standalone environment that does not touch or interact with the DCC Total System.

1.2.1. Components

DCC Boxed standard components include:

a. A Mini-PC or NUC: to host and run the DCC Boxed operating system;

b. USB Hub: to enable the connection of other devices to the Mini PC;

c. A Zigbee Traffic Sniffer dongle: to capture Zigbee based wireless communication;

d. Power cables for the above devices;

The following can be purchased separately for an extended testing experience:

e. Zigbee-enable Microcontrollers or Emulators: to enable emulation of the type of devices typically connected to the smart meter ecosystem, including ESME's, GSME's, CAD's/IHD's, PPMID's, SAPC's, HCALCs and HHT's.

f. GFI Comms Hubs: to act as a communications hub

g. Wired Instrumented Test Communications Hub (WITCH): to establish a Home Area Network using a 'real' communications hub.

1.2.2. Features & Limitations

DCC Boxed has the following key features and capabilities:

Features

a. DUIS Interface – submit service requests, translate DUIS requests to GBCS commands

b. SMKI Interface – generate DCC Boxed-relevant (non-production) certificates and validate organisation and device certificates

c. Dashboard – web Graphical User Interface (GUI): Main page, SMKI, DCC Gateway, devices information

d. HAN – creates a Home Area Network (HAN) to allowing message interchange

e. Zigbee Sniffer – hardware that captures ZigBee traffic for debug and study purposes

f. GBCS Sniffers – software to allow visualisation of GBCS payload

g. DUIS Sniffers – software visualisation of DUIS messages

h. User Guide – Help content on how to use the tool

i. Emulators on a stick: ESME, GSME, HHT, IHD, CAD, HCALCS, SAPC, PPMID, CH Driver.

Limitations

Recognising that not all real-world scenarios are able to be emulated, there are some limitations:

a. DCC Boxed does not emulate any activities performed within the Smart Metering Systems Communications Service Provider's (CSP) or Data Service Provider's (DSP) production systems. It only follows the specifications for inputs to and outputs from these systems.

b. The amount of diagnostic information and performance that can be obtained from DCC Boxed exceeds that which can be obtained from "real" devices. For example, latency is shorter in DCC Boxed. Participants should be aware that DCC Boxed is not wholly representative of "real world" testing outcomes.

c. The DCC Boxed graphical DUIS Interface contains a limited quantity of pre-defined service requests variants. This allows you to be acquainted with the DCC system and contains enough functionality for you to establish a HAN. A much richer interface is provided without graphical support within the product which is much more representative of how DCC Users interact with the DUIS in the live system.

2. Requesting DCC Boxed

2.1.1. Ordering

DCC Boxed can be ordered via the DCC website through the completion of a web order form at smartdcc.co.uk/DCCBoxed. You will be required to accept our terms and conditions (in the form of an Enabling Services Agreement).

If you are not a SEC Party and don't wish to become a SEC Party, please contact our Service Centre directly, details of which, can be found on our website smartdcc.co.uk/contact-us/. Our team of experts will advise you on how best to accommodate your enquiry.

Acceptable Use Policy

The Participant shall ensure DCC Boxed is used for private and legitimate testing only. The Participant shall ensure its use of this product does not exceed that reasonably expected of a stand-alone emulated testing platform. The Participant shall not:

a. Use DCC Boxed to find vulnerabilities and exploit these in the smart metering ecosystem

b. Use DCC Boxed to connect unauthorised devices to the smart metering ecosystem

c. Use DCC Boxed as part of any live production environment

d. Use DCC Boxed to develop products that are of insufficient quality or suitability to be connected to the live network

e. Use DCC Boxed for fraudulent or criminal purposes, or in a way that is in breach of the law

f. Re-sell DCC Boxed or any of its associated insights, components and/or benefits to another party.

If the Participant's usage falls outside of this acceptable use policy or DCC suspects the same, DCC, upon prior notice, reserves the right to impose remote restrictions upon the Participant's DCC Boxed product. Further actions for failure to adhere to this Acceptable Use Policy could include, but are not limited to, the product's warranty being declared null and void, repairs not being undertaken and DCC no longer accepting liability for damage to the product.

Patches and Updates

The Participant shall ensure that the DCC Boxed product is loaded with up-to-date patches and updates, which are available via the inbuilt platform manager function, for more details refer to the DCC Owners Club page on our website at smartdcc.co.uk/DCCBoxedOwners. DCC reserves the right to refuse to provide support or repairs to DCC Boxed products that do not have up-to-date software.

3. Using DCC Boxed

3.1. Allocation rules for DCC Boxed

DCC Boxed is a paid-for product which is available for DCC Customers who wish to purchase it. As such, there are no allocation restrictions in principle; unlike other DCC testing products which do not carry an explicit charge. DCC Boxed will be made available to customers who order it, with provision being dependent on production and delivery timetables.

DCC engages with existing and prospective customers regarding the appetite for DCC Boxed and we do not generally expect instances where excessive demand outstrips supply of the tool. However, in instances where customer orders exceed available units, we will endeavour to work with customers to find a mutually agreeable allocation agreement. Where this is not possible, DCC will determine, in a non-discriminatory manner, the order in which customers will be allocated units as they become available.

This approach is similar to DCC's obligations under the Smart Energy Code regarding the allocation of testing space in its regulated test environments, and we consider it on this basis to be the most appropriate method to manage instances where product demand exceeds supply.

3.2. Support

User Guide

DCC Boxed comes with in-built user guide which is accessed via a web browser. DCC Boxed is design to be simple to use and for Participants to be able to self-serve themselves.

DCC Service Centre

For queries not covered in the User Guide, the DCC offers a basic level of support on a reasonable endeavours basis that is included in the DCC Boxed purchase price. The basic level of support is limited to:

- Support with ordering and payment for DCC Boxed

- Support of how to download bug fixes, patches and updates

- Support with the process for product returns

- Coordination of specialist support for more in-depth technical queries during the warranty period (for out of warranty support, see below)

Instructions on how to contact the DCC Service Centre is outlined in the in-built user guide.

Hardware Warranty and Returns

During the first 12 months following delivery of the DCC Boxed unit, DCC provides a hardware warranty on the following components of DCC Boxed: the Mini-PC or NUC, the USB Hub, Zigbee Traffic Sniffer Dongles and Zigbee-enables Microcontrollers and Emulators. No warranty is offered on software.

Outside of the warranty period, the Participant can return the product to DCC, who will assess the required repairs and provide the Participant with an estimated cost to fix. Repairs will only be undertaken upon receipt in writing from the Participant of approval to proceed. The DCC will use reasonable endeavours to inform the Participant if the actual cost of repair exceeds the estimate. The DCC shall not be liable for any costs associated with delays in Participant's test activities whilst repairs are undertaken.

The Participant should contact the DCC Service Centre at servicecentre@smartdcc.co.uk for instructions on the returns process. All out of warranty returns will be at the Participant's costs. DCC recommends that the Participant adequately insure the DCC Boxed product whilst in transit to the DCC Service Centre.

4. Find out more

For more information, please refer to the following:

- **DCC website** with our DCC Boxed section: This has general information about DCC Boxed, as well as ways to contact DCC, with a separate section for those who have ordered DCC Boxed

- **Working Group:** Please attend our DCC Boxed/GFI Working group to discuss common issues, updates and other matters regarding DCC Boxed and GFI.

- **Product Description** for DCC Boxed: This is available through the DCC Website and contains full details about the product, including uses, price and ordering information.

- **Unboxing guide** for DCC Boxed: You will have received this with your order of DCC Boxed.

- **In-built User Guide** for DCC Boxed: This is accessed via the 'help' tab, when on the DCC Boxed GUI.

5. Contact Us

Please follow our established processes for contacting DCC. These can be found either through the in-built user guide if you have an issue with your product.

For queries, orders and general questions, you can contact DCC via the webforms on the DCC Boxed page at smartdcc.co.uk/DCCBoxed.