

SMDA Board
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14th December 2018

Dear DCC,

DCC Firmware Management Consultation

Thank you for the opportunity to respond to the DCC's Firmware Management Consultation, closing 17th December 2018.

The following pages set out the SMDA Scheme's response to the consultation.

The SMDA Scheme makes two key points:

1. We consider that use of real Devices in DCC testing is appropriate; however, the DCC Licensee should take great care not to compromise commercially-available testing schemes;
2. We consider that the DCC could make use of the SMDA Scheme to independently verify that Communications Hubs operate correctly and do not introduce interoperability or interchangeability issues – and that this could reduce the overall cost to industry of testing.

Please do not hesitate to contact Catherine Cousins, (Catherine.Cousins@gemserv.com), if you require any further discussion.

Yours sincerely,

SMDA Board
SMDA Company

General overview of the SMDA Scheme

The SMDA Scheme has been set up to provide assurance to consumers, suppliers and financiers that smart meter equipment will work effectively in a smart environment. The SMDA has two key objectives:

1. To provide assurance that smart metering equipment (meters and associated devices) work with the Data Communications Company (DCC). The SMDA Scheme describes this as 'Interoperability'.
2. To provide assurance that smart metering equipment work with each other. The SMDA Scheme describes this as 'Interchangeability'.

The SMDA Scheme is owned by SMDA Co, which was set up as a joint initiative between Energy and Utilities Alliance (EUA), Energy UK, British Electrotechnical and Allied Manufacturers' Association (BEAMA) and the Community of Meter Asset Providers (CMAP).

The SMDA Scheme has been set up on a commercial basis and has over 40 members, including manufacturers, energy suppliers, meter asset providers and trade associations.

The SMDA Scheme members have established governance arrangements which, amongst other things, has agreed the scope of testing. Importantly, in the context of this consultation response, this includes testing that exercises Communications Hub (CHF and GPF) functionality and successful testing is dependent upon correctly operating Communications Hubs. The current objective is to test that metering and display devices operate correctly, but could easily be extended to test that Communications Hubs operate correctly.

The SMDA Scheme tests using the DCC infrastructure, including CSP C/S (Toshiba) and CSP N (EDMI) Communications Hubs.

Commercially available schemes

DCC has set out proposals to enhance its use of real Devices during PIT and SIT, which the SMDA Scheme considers is appropriate for the purposes of assuring that the *DCC Total System* works correctly.

The SEC and DCC, via its Device Selection Methodology and other documents, have set out requirements since Release 1 for the use of real Devices during SIT and for maintaining confidentiality.

The SMDA Scheme considers that the following points should be noted:

- DCC's objective must remain to demonstrate that the DCC operates correctly;
- Commercially-available services have been established to demonstrate correct operation of Devices (through interoperability and interchangeability);
- There could be positive benefits for both DCC and its Users derived from independent testing assurance

The Smart Meter Communication Licence holder must take extreme care not to compromise commercially available services that have been, or could be, established in the competitive market.

DCC use of SMDA Scheme to assure Interoperability and Interchangeability of Communications Hubs

The SMDA Scheme's governance has agreed upon a set of tests that aim to demonstrate both interoperability of Devices with the DCC Total System and interchangeability (the ability to replace any HAN Device with confidence that any SMDA-assured Device will work with other SMDA-assured Devices).

This governance has also agreed that testing is performed using EDMI Communications Hubs in CSP North region and Toshiba Communications Hubs in CSP Central/South region. There are several reasons for this selection:

- Interoperability and Interchangeability implies correct operation in CSP N and CSP C/S regions. Pressure to reduce testing to include only one CSP region / Communications Hub, given it is the DCC's responsibility to ensure consistent operation of the DCC Total System, is tempered by evidence that Communications Hubs have not, so far, operated consistently;
- Successful testing of any Device against EDMI and Toshiba Communications Hubs, and subsequent upgraded firmware, should provide sufficient evidence that the HAN Devices being assured work as expected. Any failures that might occur through additional testing using WNC Communications Hubs would likely expose flaws with the Communications Hub and not the Device subject to SMDA assurance testing;
- WNC Communications Hubs were not available in Remote Test Labs when decisions such as extent of testing and cost of associated testing were agreed. The additional cost of testing would need to be recovered; from metering and display device manufacturers if the existing methodology were to be extended. Increasing charges to those manufacturers would be unfair, given this extra testing would effectively be providing assurance for the Communications Hub and not the device subject to SMDA testing.

The SMDA Scheme considers:

- The ability of Devices to pass SMDA testing is contingent upon the successful and consistent operation of Communications Hubs – irrespective of Communications Hub manufacturer, Communication Hub variant or Firmware loaded onto the Communications Hub;
- The SMDA Scheme has faced challenges arising from Communications Hubs not working consistently;
- We believe it appropriate that DCC considers use of the SMDA Scheme to independently assure consistency between Communications Hubs;
- Funding via DCC for Communications Hub testing would be appropriate as all DCC Users (and not just SMDA members) would derive benefits from the assurance gained from independent testing of Communications Hubs. (Additionally, all DCC Users gain benefit from the testing of other Devices for which the manufacturer pays.)
- Correct design of DCC's use of SMDA testing for Communications Hubs could reduce the total cost to industry of Communications Hub and Device testing.

National Audit Office's Report

The Scheme notes the NAO's report, 'Rolling Out Smart Meters', dated 19 November 2018 – specifically the section on 'Assurance that the SMETS2 system will work'. Paragraph 1.24 describes the risk of interchangeability issues, particularly those that may arise after a customer changes Supplier.

The SMDA Scheme considers that the existing tests that demonstrate interchangeability, were they to be applied to all combinations of Communications Hubs and a representative sample of other Devices, would make a significant contribution to mitigating this risk.

Response to questions 1 and questions 4 - 8:

The SMDA Scheme has no strong view regarding these questions and considers it more appropriate for DCC Users to respond.

Response to question 2: 'how business scenarios can be defined and agreed as in industry through relevant industry bodies'

The DCC proposes further use of business scenarios within SIT to demonstrate that the DCC Total System works in normal operation. The SMDA Scheme agrees that this is appropriate and acknowledges the challenge that smart metering was intended to support any business model.

The SMDA Scheme has agreed through its governance, including Suppliers, device manufacturers and meter asset providers a set of tests that demonstrate interoperability and interchangeability.

The SMDA Scheme considers that interoperability tests and tests to demonstrate a Device's compliance with SMETS are not wholly appropriate for Communications Hub testing. However, interchangeability testing is heavily dependent upon a correctly-operating Communications Hubs and we would welcome discussions with DCC to determine how and whether these tests can be leveraged for the benefit of the industry.

Response to question 3: 'Do you agree with the proposal for increased use of Devices in SIT? Please provide a rationale for your views'

The SMDA Scheme considers it appropriate that real Devices are used in SIT to demonstrate that the DCC Total System works correctly. It is important that the Licensee focuses on validating that the DCC works and does not compromise commercially-available schemes that demonstrate correct operation of Devices.

The SMDA Scheme believes that the DCC should consider opportunities to contract for independent assurance of Communications Hubs to complement SIT and we consider that this could reduce the overall cost of testing for industry.

Conclusion

In summary, we agree that real devices should be used in DCC testing, but not at the detriment of commercially operating schemes. We would like to reiterate our recommendation that Communications Hubs undergo SMDA testing to independently verify that they are interoperable and interchangeable.