Julian Hughes
Chair
TABASC
SECCo Ltd
8 Fenchurch Place
London
EC3M 4AJ

consultations@smartdcc.co.uk

12th 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 TABASC's general observations along with specific responses to the consultation questions.

Please do not hesitate to contact me if you require any further discussion.

Yours sincerely,

Julian Hughes
Chair, TABASC
Mobile: 07901 854953

DRAFT

General Observations

Use of real Devices in testing

The DCC sets out consideration of using real Devices in PIT and SIT. Where this is feasible without impacting the DCC's ability to deliver change or fixes, the TABASC supports the concept of using real Devices in testing as it should provide greater assurance that the DCC Total System works correctly than is gained by using emulators.

There are several important considerations:

- The DCC should continue to consider the benefits of assurance gained and risk of impact on delivery timescales. There are several factors that influence this consideration, such as the availability of Devices when PIT is scheduled and the ability to contract with manufacturers, or otherwise prioritise any activities required of manufacturers, to ensure that timescales are not adversely affected.
- Testing in SIT should not simply replicate testing in PIT as the time and cost of repeating such testing is likely to outweigh the benefits of greater assurance gained.

Testing newly-manufactured and Over-the-Air upgraded Communications Hubs

The TABASC considers it important that DCC tests Communications Hubs that have been:

- Manufactured with the new firmware version; AND
- Over-the-Air (OTA) upgraded to the new firmware version.

These are the two methods by which a Communications Hub may be used in production with the latest version of firmware and it has previously been demonstrated that the method of uplifting a Communications Hub to a firmware version can impact the Communications Hub's operation. The TABASC expects that the DCC's current approach to testing Communications Hub firmware already addresses this fundamental requirement and that newly-manufactured, and OTA upgraded Communications Hubs are tested.

Assumption of n-1, n, n+1 Firmware versions policy

The consultation document assumes a policy of maintaining three versions of Firmware (n-1, n & n+1) for each of the Communications Hubs. Whilst it is noted that this may be appropriate there several important points to raise:

- It is unclear where this policy has been agreed, or whether the DCC's intention is to formalise the policy through this consultation, although there is no question asking for confirmation of this policy.
- DCC needs to be mindful not to deprecate any Firmware whilst it remains valid in the SEC. DCC should confirm that this policy would support all versions of SMETS that remain extant in the SEC, noting that Devices compliant with 'old' (but not deprecated) versions of SMETS may remain in existence indefinitely.
- Considering the deprecation constraint above, could DCC confirm the point at which n-1 would be deprecated? Various possibilities could be foreseen, for example, when n+1 is available for OTA or when n+1 is available for manufacture.

DRAFT

Number of cycles of targeted initial deployments

Whilst the TABASC does not have a view on the number of cycles, it considers that such an approach is likely to be beneficial to Suppliers and that the number of cycles may be dependent on the extent of any change in Communications Hub firmware.

The consultation assumes that this process may not be required in the long run as the protocols and implementations mature. It would be beneficial for DCC to set out how that assumption will be validated and the TABASC proposes that this should be through a further consultation prior to the point DCC considers it appropriate to decommission such a process.

Further to the assumption that some of these proposals may be time-limited, would the DCC confirm whether any of the other proposals should be considered time-limited?

Time from design through manufacture based on these proposals

The proposals that are set out by DCC appear individually appropriate, however the cumulative impact on timescales is unknown. Could the DCC set out their views on the end-to-end process and timescales, including the presumed increase relating to these proposals?

Cost benefit analysis

Similar to setting out the impact on timescales the TABASC suggests that to obtain meaningful answers, the DCC must set out the cost, timescales impacts and benefits of these proposals. Un-costed views can only be considered an indicator of sentiment rather than an approval to make potentially wide-ranging amendments to processes.

Responses to Consultation Questions

Q1: Do you agree with the proposal to use Devices in PIT? Please provide a rationale for your views

The TABASC agrees to this proposal, subject to the caveats above. Please see our comment "Use of real Devices in testing".

Q2: Please provide your views on the proposal to use business scenarios within SIT. In particular could you provide views on how these business scenarios can be defined and agreed as an industry through the relevant industry bodies?

TABASC agrees that scenario-based testing is appropriate, at least in SIT. We note our comment above in "Use of real Devices in testing" that testing in PIT should not be duplicated in SIT to improve efficiency. TABASC would recommend that DCC considers developing the proposal for PIT and SIT testing and that TABASC and TAG provides oversight. The Business Architecture Document and model could provide a source of information for this testing.

Q3: Do you agree with the proposal for increased use Devices in SIT? Please provide a rationale for your views

TABASC considers that usage of real Device in SIT should be in line with requirements set out in the SEC and the Device Selection Methodology for DCC releases, noting the caveats and controls that

DCC should consider regarding availability and managing the impact on timescales, as set out above in "Use of real Devices in testing". TABASC also believes that DCC should consider using at least two devices using different ZigBee stacks.

Q4: Please provide your views on the proposal for DCC Customers to be given a specified time period to test their Devices in UIT in response to different release types. In particular, can you provide your view to the DCC proposal that this testing is mandatory for DCC Customers before new Comms Hub firmware is approved for production use?
TABASC has no particular view regarding mandating User participation in UIT or providing a specified time period. However, DCC should consider whether the content of any change necessitates a User to prove functionality and the requirements for this should be defined in the Release Implementation Document (RID).

Q5: Do you agree with the proposal for DCC Customers to play an active part in the initial deployment of new Comms Hub firmware? Please provide a rationale for your views.
TABASC has no particular view regarding involvement in Users targeting initial deployments, other than the comments set out above in "Number of cycles of targeted initial deployments".

Q6: Do you agree with the proposal to govern Comms Hub firmware entering the supply chain? Please provide a rationale for your views.
Please see our comments above in "Assumption of n-1, n, n+1 Firmware versions policy". Further, TABASC considers that DCC should set out expected behaviour in situations that could reasonably be foreseen, such as:

- Confirming that n-1 continues to be maintained until all Communications Hubs have been upgraded;
- Confirming what happens in a situation when n+1 is available for OTA but not subsequently available for manufacture; and
- Confirming what happens in a situation where multiple firmware versions are developed in quick succession, for reasons other than a decision not to promote a firmware version to manufacture.

Q7: Do you agree that industry should adopt a strategy on minimising firmware versions for Devices? Please provide a rationale for your views.
TABASC considers it too early to determine whether and when all Devices should attempt to minimise the number of firmware versions maintained. It is still evident that device (including Communications Hub) firmware needs to become more mature. More work is necessary to determine if, or when, firmware for all Devices can move in lock-step.

Q8: Please provide your views on the current issues facing wider industry collaboration and suggestions on how this could be improved? Provide a rationale for your views and ideas on how such collaboration could be enhanced.
TABASC considers that more information is needed. Any collaboration process would need to include joint agreement of issues, prioritisation, testing, availability of triage / analysis capabilities. It would be necessary to define how such a process might work, the impacts of the process and whether sufficient resources from all parties would be available to support such a process.

DRAFT