Data Communications Company

Consultation on the Delivery Plan for DCC Release 2.0

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Table of Contents

1. Introduction and Programme Context

In October 2018, DCC delivered a major update to our systems - Release 2.0. This paved the way for Dual Band Communications Hubs, which will provide a greater Home Area Network (HAN) coverage than Single Band Communications Hubs.

Release 2.0 has three main components:

1. A new release of core code including Data Service Provider (DSP) code and Parse & Correlate which provides the facility for customers to make use of the new DCC User Interface Specification (DUIS) 2.0 interface and Great Britain Companion Specification (GBCS) 2.0 specification
2. New Single Band Communications Hub (SBCH) firmware which complies with new GBCS 2.0 specifications and will work on existing Communications Hub hardware. This is designed to be both backwardly compatible with existing SMETS2v2 devices and to work with new, GBCS 2.0 capable, SMETS2v3 devices.
3. New Dual Band Communications Hub (DBCH) hardware and firmware which will provide a bigger radio footprint in homes. This is required where homes have particularly thick walls or where the Gas Meter or In Home Display device is particularly remote from the Communications Hub. These hubs also support the new GBCS 2.0 specification but differ from existing hubs in that they operate in two radio frequency bands instead of one.

DCC has been delivering against the LC13 plan agreed in October 2017 for the implementation of Release 2.0. On 28 October 2018, DCC made the core R2.0 code live and made SBCH firmware for all Communications Hub manufacturers in North and South & Central Regions available to users in the UIT-A environment. Putting the R2.0 code live was the first step in customers making use of the new functionality. However, the new DUIS 2.0 functionality can only be used once the R2.0 Communications Hub firmware has been deployed (either to existing Communications Hubs or by deploying new DBCH devices) and meters/devices have been uplifted to be SMETS2v3 compliant. It was always envisaged that this would happen gradually after the core code go-live as customers become ready to adopt new R2.0 capabilities.

In delivering this plan, a number of issues have emerged which will impact when DCC can provide all elements of the original LC13 plan. DCC delivered GBCS 2.0 compliant SBCH for the Central and South (CSP C&S) Region on 30 August 2019 however, SBCH for the North (CSP North) are not yet compliant with GBCS 2.0. In addition, there have been delays in the delivery dates for DBCH caused by a lack of sub-GHz meters, issues associated with Communications Hubs firmware and critical Zigbee chipset stability issues.

It has been recognised that the Release 2.0 plan that was agreed in October 2017 is now out of date and does not reflect the currently planned deliverables and milestones for the elements of Release 2.0 that remain outstanding. On 30 June 2020, BEIS issued a direction under Condition 13 of the DCC licence for the DCC to produce a new plan to replace those elements of the existing plan relating to outstanding Release 2.0 content.

DCC are therefore consulting on a new plan that sets out when the outstanding elements of Service Release 2.0 will be met. This includes:

- the bulk availability for ordering of updated Single Band Communications Hubs in CSP North; and
- the bulk availability for ordering of Dual Band Communications Hubs in each of the CSP Regions.

2. Overview of Revised Plan

The proposed revised delivery plan is set in a milestone table at **Appendix A.** The changes to the key milestone delivery dates from the original LC13 Release 2.0 (R2.0) plan and the proposed plan is set out in the table below. For clarity, the R2.0 Code into live milestone defined in the original LC13 plan is proposed to be split into 3 sub-milestones in order to reflect the different delivery statuses of the sub-components of the overall milestone.

Milestone	Description	Original date	Proposed/Met Date	Status
R2.0 Code into Live	This milestone is the point at which: • BEIS has activated the appropriate provisions within the SEC enabling live DCC services for Release 2.0 (e.g. enrolment and communication) to commence. • DCC systems have been successfully uplifted to R2.0 in all Regions. • DCC Operations have accepted R2.0 services into live.	30/09/2018	28/10/2018	**Met**
	• DCC have made available the R2.0 Communications Hub firmware for SBCH and DBCH in all Regions.		30/08/2019 14/07/2020	**Milestone met R2.0 DBCH and SBCH C&S** Milestone for R2.0 SBCH North[1] proposed

[1] A R2.0 SBCH firmware is on the CPL but uptake is limited due to issues observed in Pilot. New date proposed is for a version without the said issue.

Milestone	Description	Original date	Proposed/Met Date	Status
First batch of production DBCH available	This milestone represents when the first initial batch of compliant production DBCHs in all Regions will be available	15/10/2018	20/02/2019 24/08/2020	**Met for Central and South Region** Proposed for the North
Full volume production DBCH capability	This milestone represents the point at which DBCH can be delivered at full volume by the DCC in all Regions in accordance with the SEC (F5-F9).	13/12/2018	26/11/2020 16/11/2020	Proposed for Central and South Region Proposed for the North

3. Detailed Proposals

A number of issues have emerged which have impacted DCC's ability to provide all elements of the original LC13 plan.

On 28 October 2018, DCC made the core R2.0 code live and made SBCH firmware for all Comms Hub manufacturers in North and South & Central Regions available to users in the UIT-A environment. DCC delivered GBCS 2.0 compliant SBCH for the Central and South Region on 30 August 2019. However, issues were identified in the North region, during the testing and validation of the EDMI single band firmware in UIT which resulted the firmware not being made available for customers in production as planned. Further attempts to deliver a viable release into production for customers following this have been unsuccessful with the latest attempt (R2.02.4) being added to the CPL in March 2020 however, the firmware was not subsequently available for customers to deploy at scale as a result of an issue observed during the pilot OTA.

The issue observed in R2.02.4 has been addressed and validated in testing and an EDMI SBCH release with this mitigation incorporated was expected on the CPL on 14 July 2020. As at time of publication the milestone has not met and has been replanned for 30 July 2020. This sub-milestone makes up the final component of the R2.0 Code into live overall milestone. However, it will be recognised that the release will need to subsequently be available for customers to deploy at scale in order to be determined to have been met. This is in recognition of the previous issues encountered post-CPL described in the previous paragraph.

DCC has worked to resolve the DBCH and Zigbee chipset issue and deliver a viable plan whilst engaging extensively on these issues with industry and government through the Implementation Managers Forum (IMF) and the Smart Meter Delivery Group (SMDG). These issues have now been resolved and the Dual Band Device Integration Test (DIT) Phase was completed successfully on 28 May 2020 for the CSP North Region and 15 June 2020 for the CSP South and Central. As at time of publication, firmware for each region is currently being tested by customers in the User Integration Test (UIT) environment.

Revised planned dates for the DBCH milestones were shared with the IMF and put forward through Joint Industry Plan (JIP) CR_091 (for CSP Central/South) and CR_092 (for CSP North) which were agreed by IMF before being baselined by the Smart Metering Delivery Group (SMDG) on 9 April 2020 and 12 May 2020 respectively. These milestone dates form the basis of the revised LC13 plan for R2.0 and reflect the dates agreed at IMF in the JIP.

DCC proposes that the first batch of DBCH for CSP North will be available from 24 August 2020.

DCC proposes to provide one pallet in total for all Parties of the 420 DB variant for the North Region. There will be 896 DBCH per pallet in the North Region. DCC proposes to write to customers regarding their initial volume request for DBCH initial installations. Customers in the first instance will be limited to 28 units (1x carton) in the North Region with any surplus then provided on a first come first serve basis. Once finalised, DCC will follow BAU delivery processes; goods in processes, Advanced Shipping Notifications (ASNs) etc.

DCC is proposing that full volume production DBCH for CSP North can be delivered (in accordance with SEC Section F5 – F6) from 16 November 2020.

The high-level delivery dates for the 450 DB variant (Fylingdales DBCH) were shared with the IMF in May 2020. DCC plan to raise a separate JIP CR for the Fylingdales delivery milestones which are currently proposed for Q2 2020.

DCC proposes that the first batch of DBCH CSP Central and South will be available from 26 August 2020. It should be noted that an earlier R2.0 DBCH firmware was provided on an initial batch of DBCH for the Central and South Region which was available in February 2019 but this did not progress to full volume DBCH production.

DCC will provide four pallets in total for all Parties of the cellular DB variant for the Central and South Region. There will be 640 DBCH per pallet in the Central and South Region. DCC proposes to write to customers regarding their initial volume request for DBCH initial installations. Customers in the first instance will be limited to 28 units (1x carton) in the Central and South Region with any surplus then provided on a first come first serve basis. Once finalised, DCC will follow BAU delivery processes; goods in processes, Advanced Shipping Notifications (ASNs) etc.

DCC is proposing that full volume production DBCH for CSP Central and South can be delivered (in accordance with SEC Section F5 – F6) from 26 November 2020.

4. Stakeholder engagement of Release 2.0 Delivery Plan

DCC recognises the importance of keeping stakeholders informed about progress against the plan and DCC will report on progress against the milestone dates on a monthly basis to both IMF and the SMDG.

5. Assumptions, Dependencies and Risks

This section sets out the Assumptions, Dependencies and Risks that DCC has identified associated with the revised plan.

5.1. Assumptions

Ref	Description	Impact	Management Strategy
1	It is assumed that sufficient volumes of sub GHz gas meters, IHDs and PPMIDs will be available in time for the DBCH Initial Installation Periods in the proposed plan.	Delay to DBCH rollout.	Proceed with DBCH delivery. Work with customers and device manufacturers to encourage availability. Encourage Service Users to consider use of 2.4 GHz devices where practical and until sub GHz devices are available.

Table 1: Assumptions

5.2. Dependencies

Ref	Description	Impact	Management Strategy
1	Service User participation in UIT testing.	Inability to complete UIT, Operational Acceptance and upload to CPL.	Early and ongoing engagement with Service Users to encourage and facilitate their participation in UIT.
2	Service User participation in the DBCH Initial Installation Periods.	Reduced level of confidence to proceed to mass manufacture and shipping.	Early and ongoing engagement with Service Users to encourage and facilitate their participation in Initial Installation activities.

Ref	Description	Impact	Management Strategy
3	Availability of sub GHz gas meters, IHDs and PPMIDs in time for the DBCH Initial Installation Periods in the proposed plan.	Delay to DBCH rollout.	Proceed with DBCH delivery. Work with customers and device manufacturers to encourage availability. Encourage Service Users to consider use of 2.4 GHz devices where practical and until sub GHz devices are available.

Table 2: Dependencies

5.3. Risks and Issues

Ref	Description	Impact	Management Strategy
1.	There is a risk of lack of availability of sub-GHz meters IHDs and PMIDs by the industry for customers to install with the DBCH	Customers are unable to validate the DBCH in production. DCC may be unable to manufacture and supply full volumes of the product	DCC has exhaustively tested the DBCH and on this basis would proceed to manufacture the first palette as planned. For full volume, DCC will produce small numbers to begin with, ramping up to full volume supply over a period of 3-6 months as sub-GHz meters become available in the Industry.
2.	There is a risk that COVID-19 may cause a delay to the plan, particularly if there is a second lockdown or local lockdowns. Testing and development work may be impacted due to limited access to labs for UIT and to premises for the initial installation period.	Delay to implementation	DCC are continually monitoring and reporting on the impact of COVID-19. To date it has not had a detrimental impact to plans or delivery activity.

Ref	Description	Impact	Management Strategy
3.	There is a risk that other projects delivering in similar timescales may have an impact on R2.0 and could cause a delay in availability in testing environments. SMETS1 may place unforeseen constraints on this project.	Delay to implementation	DCC release and delivery strategy has been optimised in order to minimise the risk to R2.0 and all other releases. DCC will carefully manage inter - dependencies.
4.	There is a risk that multiple overlapping UIT phases will not be achievable for Parties.	Delay to implementation	DCC is aware of the peak time for Parties UIT across four releases and continues to work on options to mitigate risks during this period. DCC acknowledges flexibility will be required by all Parties during this period and committed to working with DCC Users and partners in this regard. There is regular engagement through the twice weekly test calls with DCC Users on their test progress and risks.
5.	There is a risk of impact to the CSP North DBCH plan due to issues being observed on SBCH	Delay to implementation	The known PPMID compatibility issue observed on SBCH was confirmed in March IMF to be addressed via a mitigation added to the follow up FW release, planned for supply in March 2021 for DBCH. With regards to all other Single Band impacting issues, these have been discussed extensively and mitigation/solutions for these are planned for the next Dual Band Release.
6.	Delivery of first pallet in August in low volumes places increased risk on go live decision, and availability of enough DBCHs to understand trends or defects.	Delay to implementation	DCC is making available 4 pallets of DBCHs in the South and Central and 1 pallet of DBCHs in the North - a total of approximately 4,300 DBCHs. This is 2 pallets more than originally planned and will de-risk the low volumes. The likelihood of a critical defect is further de-risked by the 6-week customer UIT per DBCH manufacturer (EDMI WNC and Toshiba).

Ref	Description	Impact	Management Strategy
7.	GBCS 2.0 has a limited remaining lifespan in terms of IVP and confirmed delivery plans for GBCS v2.1 and 3.2 have not yet been presented.	Schedule impact	DCC and BEIS have established a fortnightly working group to review progress. DCC will propose to revise the GBCS 2.0 and GBCS 2.1 backstops and present a final plan at September IMF of what activities will be conducted when in order to inform a full re-plan for GBCS 2.1 and GBCS 3.2 delivery dates. Alongside this, DCC will raise a SEC Modification for revision of the IVP and MVP dates for CHTS1.1 (GBCS2.0 backstop) and CHTS1.1 (GBCS2.1 backstop) recognising the current date will not be able to be met across all CSPs and products as it stands. A separate CR will then be raised to reflect the revised GBCS 2.1 and GBCS 3.2 compliant firmware release dates.

Table 3: Risks

6. Consultation process and next steps

This consultation closes at **16:00 on Thursday 30 July 2020**. Please email your response to consultations@smartdcc.co.uk.

Contents of responses may be (where not marked confidential) shared with other stakeholders. Please state whether all or any part of your response is confidential. Please note that responses in their entirety (including any text marked confidential) will be shared with the Department for Business, Energy and Industrial Strategy (BEIS) and may be made available to the Gas and Electricity Markets Authority (the Authority).

If you have any questions in relation to this consultation, please contact regulation@smartdcc.co.uk.

7. Consultation Questions

Number	Consultation Question
Q1	Do you agree with the proposed milestone dates in Appendix A.? Please provide a rationale for your views.
Q2	Do you agree with DCC's assessment of the risk, assumptions and dependencies in relation to the R2.0 revised delivery plan? Please provide a rationale for your views.

Appendix A – Proposed Milestones

Milestone	Date	Description
R2.0 SBCH firmware available in the North Region	14/07/2020	This milestone is the remaining sub-component of the original LC13 R2.0 Code into Live Milestone and represents when DCC have made available the R2.0 Communications Hub firmware for SBCH in the North Region.
First Batch production DBCHs available for the North Region	24/08/2020	This milestone represents when the first initial batch of compliant production DBCHs in the North Region will be available.
Full volume production DBCH capability for the North Region	16/11/2020	This milestone represents the point at which DBCH can be delivered at full volume by the DCC in the North Region in accordance with the SEC (F5-F9)
Full volume production DBCH capability for the Central and South Region	26/11/2020	This milestone represents the point at which DBCH can be delivered at full volume by the DCC in the Central and South Region in accordance with the SEC (F5-F9)

Appendix B – Plan on a Page