Data Communications Company

SECMP0024 WORKING GROUP

Monday 25th February 2019

Gemserv - Fenchurch Place, London

DCC Public

Agenda

- Introduction
- Stakeholder Responses
- DCC Proposal - Co-operative Comms Hub Firmware OTA Deployment
- Next Steps

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Introduction

Introduction

- **The aim today is to inform the Working Group of the responses from of the "DCC Firmware Management Consultation" and then as part of the process determine the preferred industry solution. DCC's intention is to progress the solution selected by the SEC Modification process**
- **As stated in the consultation DCC supports customer requirements outlined in SECMOP0024. The aim for the Co-operative Comms Hub Firmware OTA Deployment is to provide the improvements DCC Customers requested in SECMP0024, without the potential significant changes to DCC Systems, obligations of Comms Hub ownership and performance responsibilities**
- **There have been longstanding concerns from DCC Customers on DCC upgrading Comms Hubs and the how this could impact the other Devices which are deployed to form the Smart Metering Home Area Network (HAN) and the Smart Metering functionality that these devices collectively provide**
- **As a result of the engagement with DCC Customers an interim Comms Hub firmware deployment approach called Hypercare was implemented to provide DCC Customers additional time to build confidence before Comms Hub firmware is rolled out to the deployed Comms Hub estate**

Introduction

- **So as part of DCC's work supporting SECMP0024 and engagement with stakeholders on issues with Comms Hub firmware, a key improvement identified was the need for DCC Customers to play an active role in the initial deployment of new Comms Hub firmware before it is rolled out to the remainder of the estate for that Comms Hub variant**

- **In the "DCC Firmware Management Consultation" the Co-operative Comms Hub Firmware OTA Deployment was proposed by DCC. The aim of this approach is to provide DCC Customers the requested control over which Comms Hubs are initially upgraded when new Comms Hub firmware is to be deployed to production before the CSPs use their existing toolset to upgrade the remainder of the eligible estate, only once the required confidence has been attained with DCC Customers**

- **To support that section and gather DCC Customer views Question 5 in the DCC Firmware Management Consultation asked:**

  "Do you agree with the proposal for DCC Customers to play an active part in the initial deployment of new Comms Hub firmware?"

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Consultation Customer Responses

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Consultation Customer Responses

- **The complete responses to the Question 5 have been documented in the "DCC Firmware Management Consultation Response". Below is a summary of the responses, it is not our intent to go through these in detail today but where required we can:**
  - **The majority of respondents to this question agreed with the DCC's proposal for DCC Customers to play an active part in the initial deployment of new Comms Hub firmware**
  - **Early and consistent engagement with Suppliers will help ensure that early phases are controlled and where possible managed across specific DCC Customers (e.g. "super-friendly" accounts) to ensure that vulnerable or high-risk consumers are not included in early deployments until the assurance of live operation has been confirmed**
  - **Engagement in the process will allow Suppliers to mitigate any risks identified early and ensure appropriate consumer communications and support are in place**
  - **The ability to validate that the new firmware does not impact the service provided is key to approving wider deployment**
  - **DCC Users are best placed to confirm that initial deployment of Comms Hub firmware has been successful or not.**

Consultation Customer Responses

- **Summary of responses continued:**
  - **With regard to phase 1 of the proposed approach, one respondent noted that the stage should allow sufficient time for DCC Users to assess, test and diagnose issues**
  - **One respondent believed the opportunity for the initial deployment in phase 1 should be optional. This is because there may be a requirement for the DCC User to roll the firmware out as soon as possible, and so the respondent noted that this option should be included in the process**
  - **One respondent also questioned whether the participation in the entire process will be voluntary or mandated**
  - **Whilst some respondents welcomed the opportunity to feedback findings into the proposed assessment meetings, a number of respondents requested further clarity on the "Firmware Content Committee" and its membership**

Consultation Customer Responses

- **Summary of responses continued:**
  - **A number of respondents also questioned how the proposals relate to SECMP0024. One respondent highlighted that it is unclear whether the DCC's proposal as set out in the consultation document is an alternative to SECMP0024 or whether it is supplementary to it. Two respondents highlighted the importance of maintaining the concepts within SECMP0024, specifically the need for sequencing firmware updates and the automated feedback of successful CH firmware updates**
  - **Noting that the consultation assumes that this process may not be required in the long run as the protocols and implementations mature, one respondent believed it to be beneficial for DCC to set out how that assumption will be validated. The respondent proposed that this should be through a further consultation prior to the point DCC considers it appropriate to decommission such a process**

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DCC Proposal - Co-operative Comms Hub Firmware OTA Deployment

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Co-operative Comms Hub Firmware OTA Deployment

So what are DCC proposing?

- **In the DCC Firmware Management Consultation DCC outlined the proposal for a "pilot" co-operative Comms Hub firmware OTA phase which would involve DCC Customers, DCC and the CSPs. This is to build confidence that both the Comms Hub and Devices continue to operate as expected following a Comms Hub firmware upgrade**

- **In this proposal the main actors of the process would be provided tooling (e.g. a website or portal) where they can gain access to the information they need and perform their required actions**

- **DCC has held internal workshops to discuss ideas and inform thinking. The following slides aim to summarise and capture the key ideas for the Working Group to consider. If this was selected as the preferred option these requirements would need to be developed further as part of the Modification process to ensure all requirements have been captured**

Co-operative Comms Hub Firmware OTA Deployment

Positioning – Firmware Development and Testing to Deployment

- **The below outlines the event that will have occurred before the firmware is even considered for deployment in the production environment:**

Comms Hub Firmware Development and Testing

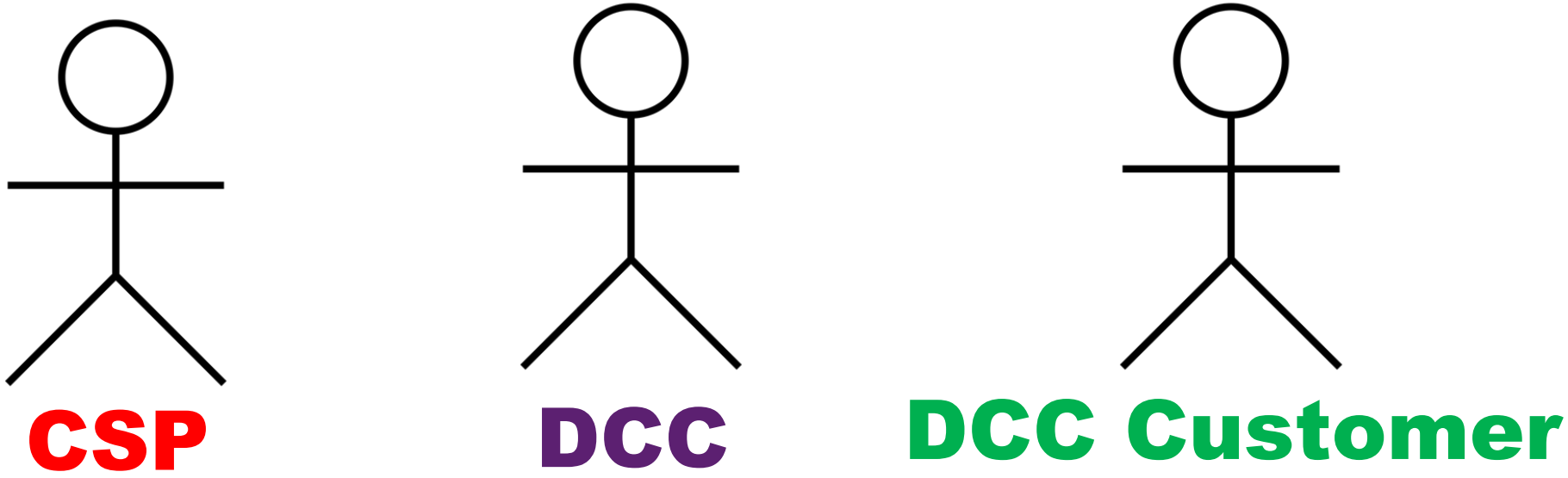
- Firmware Developed
- Firmware approved by CSP
- Firmware approved by DCC Testing
- Proposed - Firmware tested by DCC Customers and Feedback to DCC
- Proposed - Firmware verified with new DCC Production Proving toolset
- Firmware given Operation Approval (OA) by DCC
- Firmware added to the Production CPL

Comms Hub Firmware OTA Deployment

Co-operative Comms Hub Firmware OTA Deployment

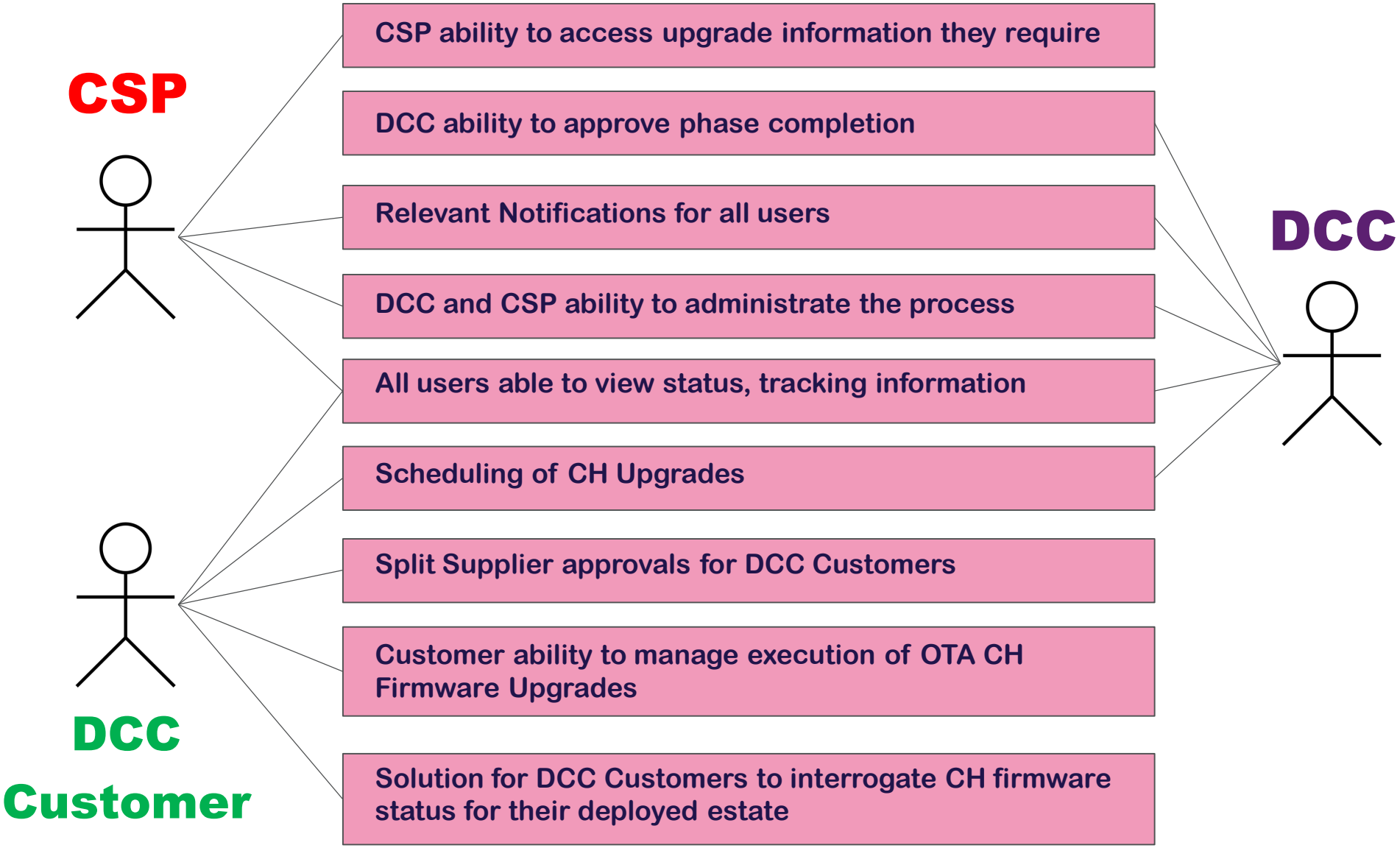
Who are our actors in this process?

- **Do we agree that the below are the actors? If not, what do we need?**



Co-operative Comms Hub Firmware OTA Deployment

What do the actors need?



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Co-operative Comms Hub Firmware OTA Deployment

Requisite Features

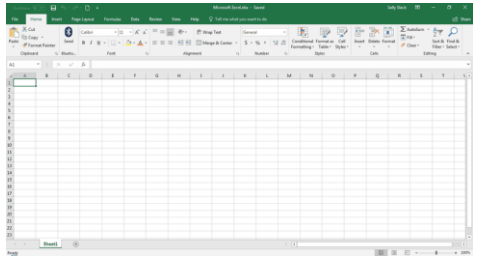
- **DCC believes that if this type of solution was selected as the preferred option to operate Comms Hub firmware deployment then there are some requisite items or features needed to enable it**
- **These items are not exhaustive and would need to be fully captured as part of the modification process**
- **Please challenge if you don't believe these are valid or we need a variant of the stated feature**

Co-operative Comms Hub Firmware OTA Deployment

Requisite Features

New Tooling

New Tooling to be built to automate and facilitate the processes and functionality we agree is required to make the management of Comms Hub firmware as seamless as possible



No Spreadsheets, Minimal Manual Work / Administration!

The new process needs to be as automated as possible, with as little manual input for all key stakeholders as possible. Limitation of Hypercare which can be resolved

Co-operative Comms Hub Firmware OTA Deployment

Requisite Features

DCC Customer Management

New tooling in place to allow DCC Customers to manage their upgrades:

- **Pilot CH Upgrade GUID selection**
- **Information on the CHs deployed on their estate (e.g. firmware version)**
- **View status of pilots**
- **Notifications**

As an example, DCC Customers would be able to manage split supplier scenarios, where they don't know who the other supplier is.

So this could be approving an upgrade for a split supplier Comms Hub or reacting to a notification that the other supplier has approved their side of the upgrade.

Co-operative Comms Hub Firmware OTA Deployment

Requisite Features

CSP Management

New tooling in place to allow CSPs to manage the upgrades:

- **Ability to access upgrade GUIDs**
- **Administrate Pilots**
- **View status of pilots**
- **Send Notifications to Customers**

As an example, on a regular basis the CSP will need to gain GUID information of what can be upgraded.

This GUID information will not be locked to pilot phases, all approved GUIDs will be available to the CSP. So a DCC Customer could approve their whole estate to be upgraded whilst other DCC Customers remain in their own pilot phase.

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Co-operative Comms Hub Firmware OTA Deployment

Requisite Features

DCC Process Administration

New tooling in place to allow DCC to administrate upgrades:

- **Operational Approval to begin pilot**
- **Operational Approval to begin mass rollout**
- **Phase completion**
- **Send Notifications to Customers**
- **View status of pilots**

Co-operative Comms Hub Firmware OTA Deployment

Beyond Comms Hub Firmware Deployment – Building Rules

- **Based on our engagement with key stakeholders and responses to the consultation the DCC believes that the Users of this new process could benefit from the ability to build "business rules", the ability to customise how they wish to operate. This goes slightly beyond the original scope of SECMP0024 but delivers what DCC Customers have requested in their consultation responses**

- **As part of the new functionality delivered the tool could build capability for the different types of users to build rules which facilitate improved firmware management, beyond Comms Hub firmware deployment**

- **This ability could benefit all users and key stakeholders to manage their deployed device estate with finer control**

Co-operative Comms Hub Firmware OTA Deployment

Beyond Comms Hub Firmware Deployment – Building Rules

Examples of rules could be:

- **DCC Customers configuring upgrades by DPL configuration sets they are happy to upgrade, wait for those where more testing is required. Automatic cut off dates built in where CSPs take over or where possible DCC gives customers more time**
- **Notifications sent to customers or info on a screen to suggest that an old configuration set is being run by the industry on a new configuration set now**
- **DCC Customers approve configuration sets to be upgraded whenever they are installed, or taken through required steps e.g. meter upgrade alerted, once complete Comms Hub upgrade executed**
- **Prioritisation (or delay) of upgrade of new Install & Commissions**
- **Information flagged by Customers to Customers which may inform decisions e.g. defects in triage, we have temporarily suspended upgrades on this devices**
- **Schedule upgrades after certain events. If this … then do this …**
- **And the rest ……. Anything that can be configured, endless possibilities**

Co-operative Comms Hub Firmware OTA Deployment

Beyond Comms Hub Firmware Deployment – Deployed Products

- **Finally DCC also believes that key stakeholders like DCC Customers could benefit from a clearer representation or views of data which is already available in the DCC Ecosystem**

- **For example, in terms of competition an industry level view of the deployed products list supplemented with volumes is only available to DCC. However on a DCC Customer by DCC Customer basis this information could be very useful i.e. the DCC Customer can only see their version of the Deployed Products List graphically represented as a pie chart. This information could be further used to demonstrate trends e.g. the industry is moving away from a given configuration set to another configuration set. In this way DCC Customers could be better informed in their decision making**

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Next Steps

Next Steps

- **Next steps to be determined based on the feedback of the Working Group today**

- **Once all customer requirements have been confirmed, if the DCC proposal is acceptable to DCC Customers and the industry our hope is that the solution for this modification can be implemented quickly**

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