

Document Classification:	DCC Public (White)
Paper Reference:	SSI Improvement Proposal #7 – Firmware Distribution Tracking. Request approval for deployment.
SEC Committee and Meeting Date:	OPSG 05/10/2021
Intent:	For Decision
Attachments:	None

1. Purpose:

- Request SEC Ops Group approval to deploy SSI Improvement Proposal (SIP) #7 – Firmware Distribution Tracking
- Recommend to approve deployment of SIP#7

This paper provides the SEC Operations Group with details of SIP#7 and request that members note the development and testing completed and consider approval for deployment with SEC November 2021 release (and SEC-MP007).

2. Background

- SEC-MP0007 “Firmware updates to IHDs and PPMIDs”, proposed by industry, has been developed and approved for implementation. The modification solution included the requirement for DCC to notify Responsible Suppliers at certain stages during the processing of a Firmware request.
- To meet this requirement the modification group proposed a new “Firmware Distribution Tracking” functionality, to be made available on the SSI for all SMETS2 Device Types that the DCC supports Update Firmware services for (excluding the Comms Hub) was proposed. This proposed solution requires DSP to enable the read inventory to include firmware versions and progress of updates.
- The benefits of this firmware tracking, in addition to other benefits the modification brings, are understood to be the additional visibility of Firmware update progression, to all users using standard SSI dashboard, without relying on systems to relay that information. And the ability to understand the point of failure of a firmware update request so that appropriate remedial action can be taken.
- DCC worked to understand the requirements of this new SSI functionality and developed the solution through user engagement and the SEC modification governance process.

- The SEC modification business requirements issued included the firmware tracking functionality and the Impact Assessment included the costs for amendments to the SSI, which were subsequently approved by the Change Board.
- The SSI Change Governance Process currently requires SSI changes to follow a separate process to the SEC Modification process, including where the SEC modification also requires an SSI change. DCC therefore issued a separate consultation describing the proposed amendment to the SSI resulting from SEC-MP007.
- This new Firmware Distribution Tracking functionality will track the progress of a User's Update Firmware Service Requests at Device level through the DCC Systems and update/report on the different stages of the firmware update processing from receipt through to completion, including any error notifications.
- Each User's Update Firmware Service Requests sent to the DCC, and their associated "Processing Status" values, will be available for query and visible to them via a new SSI "**Firmware Distribution Tracking**" screen. This change will provide additional information to Users and allow them to monitor DCC firmware delivery performance more closely than is currently possible.
- DCC issued a consultation covering the proposal from 25 February 2021 to 26 March 2021. The consultation can be found here - [Consultation on proposed changes to the Self-Service Interface - Firmware Distribution Tracking \(SIP 7\) V1.0 \(smartdcc.co.uk\)](https://smartdcc.co.uk/consultation-on-proposed-changes-to-the-self-service-interface-firmware-distribution-tracking-sip-7-v1.0)
- DCC presented the SIP and consultation feedback to SEC Operations Group in July 2021, where approval to proceed with development was provided.

3. Firmware Distribution Tracking Functionality

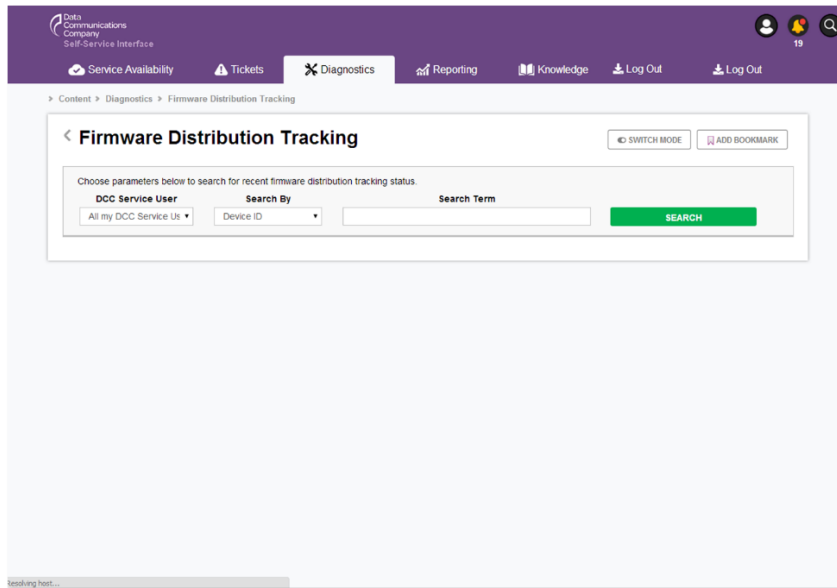
SSI#7: New SSI screen to support " Firmware Distribution Tracking "	
Problem Statement	Currently, there is limited Tracking that occurs within the DCC Systems to monitor and report back to Users on the progress of their Update Firmware Service Requests sent to the DCC.
Proposer	SECMP0007 working group
Description (confirming if adding, removing or amending functionality)	<p>A new "Firmware Distribution Tracking" SSI screen is proposed to be added to the SSI. This functionality will enable Users to track the progress of their firmware updates sent to the DCC by querying details of recent firmware update distribution requests held within the DCC Data Systems. The functionality will be available for all SMETS2 Device Types that the DCC supports Update Firmware services for (ESME, GSME, PPMID and HCALCS, excluding CHs).</p> <p>No other functionality will be amended or removed.</p>
Benefits	<p>This new functionality will:</p> <ul style="list-style-type: none"> • Enable Users to monitor the progress of their Update Firmware Service Requests sent to the DCC and determine their current 'Processing

	<p>Status' to identify where the request is up to in the overall processing cycle.</p> <ul style="list-style-type: none"> • Ensure Users can access the newly stored Firmware Distribution Tracking data
SEC Parties Impacted	<p>Large Suppliers</p> <p>Small Suppliers</p>
Anticipated Cost Range	This cost has been covered through the SEC Modifications Process via SECMP0007, and as such represents no additional cost to Industry.
Anticipated timescale to develop and deliver	Implementation of the new SSI screen is planned for the next scheduled SEC Release in November 2021.

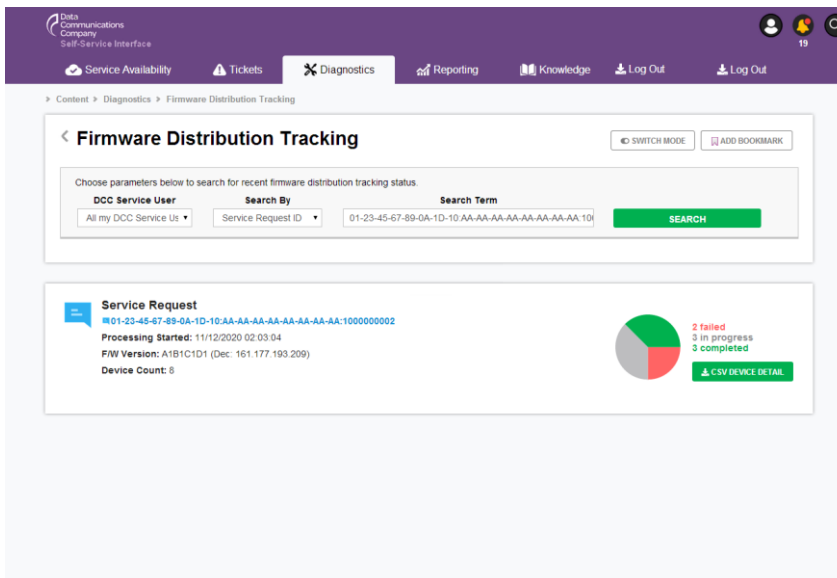
Table 1. Details for the development of SSI#7.

- The new “*Firmware Distribution Tracking*” SSI screen will enable Users to query details of recent firmware update distribution requests held within the DCC Data Systems. Users will be able to view the last recorded processing status of a device using this new SSI screen. This functionality will allow single device look-up, and not allow batch updates to be queried.
- This new feature is intended for use as a diagnostic tool to understand the progress and current status of a particular Update Firmware Service Request, or Update Firmware request for a particular specified device.
- Note that the new SSI screen is not intended to provide wider reporting information, for example of the rollout progress of a new firmware version to a large estate of devices. As such the new SSI use case provides a single User specified DeviceID / ServiceRequestID search value. It does not support multiple search criteria via an input list/file.
- Firmware Distribution Tracking history via the SSI screen is only available for monitoring Devices that are SMETS2 or later, that are not type 2 and are not Comms Hubs.
- The user will be presented with the initial search form where search criteria can be entered. The user will have the option to select to search by “Service Request ID” or “Device ID” and enter the required search value in the “Search Term” field.
- Users should note that this new feature is intended for use as a diagnostic tool to understand the progress and current status of a particular Update Firmware Service Request, or Update Firmware request for a particular specified device and so at least one of these “search by” criteria must be selected for query.
- Users were asked if they agreed with the additions to the SSI as described, and to provide a rationale for their response where they did not agree.

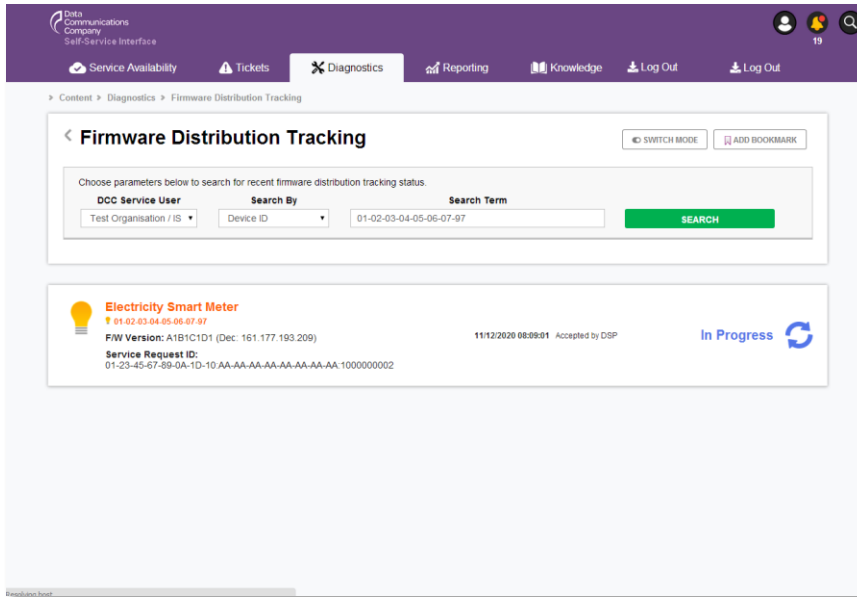
4. Firmware Distribution Tracking Self Service Interface (SSI) screenshots



- Results for searched “Service Request ID” will be displayed as below and results can be downloaded in CSV file format which will include details of the Service Request ID, Firmware Version, Device ID, Current Status, Current Status Reason, and Current Status Update Time and Date.



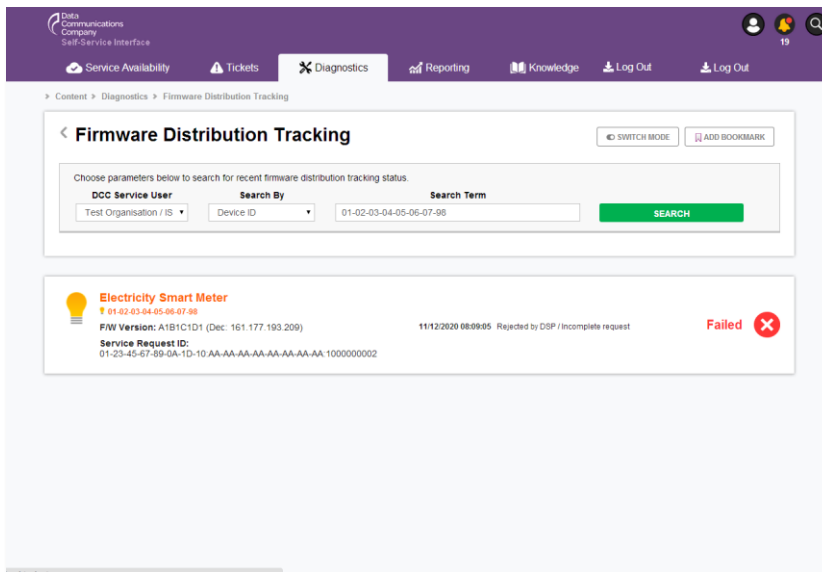
- Results for searched “Device ID” will be displayed as below and results will include details of the one of the three possible Completion Status values ('In Progress', 'Failed' or 'Complete') as displayed on the screenshots below.
- Results for searched “Device ID” where the Update Firmware Service Request has a Completion Status value of “In Progress” will be displayed as below.



The screenshot shows the 'Firmware Distribution Tracking' page. The search parameters are: DCC Service User: Test Organisation / IS, Search By: Device ID, and Search Term: 01-02-03-04-05-06-07-97. The results show a single entry for 'Electricity Smart Meter' with a status of 'In Progress'.

Device ID	FW Version	Service Request ID	Completion Status
01-02-03-04-05-06-07-97	A1B1C1D1 (Dec: 161.177.193.209)	01-23-45-67-89-0A-1D-10-AA-AA-AA-AA-AA-AA-AA-1000000002	In Progress

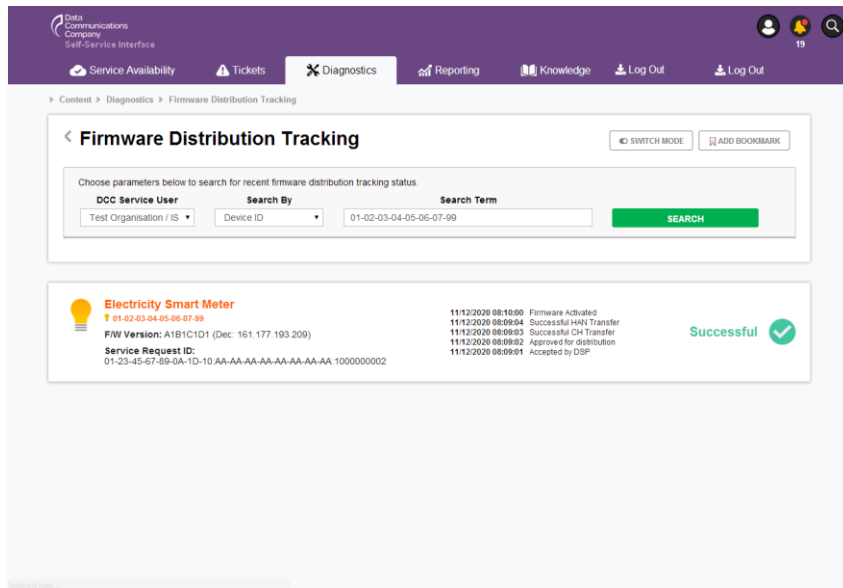
- Results for searched "Device ID" where the Update Firmware Service Request has a Completion Status value of "Failed" will be displayed as below.



The screenshot shows the 'Firmware Distribution Tracking' page. The search parameters are: DCC Service User: Test Organisation / IS, Search By: Device ID, and Search Term: 01-02-03-04-05-06-07-98. The results show a single entry for 'Electricity Smart Meter' with a status of 'Failed'.

Device ID	FW Version	Service Request ID	Completion Status
01-02-03-04-05-06-07-98	A1B1C1D1 (Dec: 161.177.193.209)	01-23-45-67-89-0A-1D-10-AA-AA-AA-AA-AA-AA-AA-1000000002	Failed

- Results for searched "Device ID" where the Update Firmware Service Request has a Completion Status value of "Successful" will be displayed as below.



5. Progress

- SIP#7 was proposed by the SEC MP0007 Working Group and has been designed to fulfil the requirements of that modification.
- DCC issued a SIP consultation from 25 February 2021 to 26 March.
- SEC Operations Group approved development of the SIP in July 2021.
- Development of SIP#7 has now completed, matching the scope of the improvement proposal requested under SEC-MP007, the details provided via DCC consultation and those presented to SEC Operations in July 2021.
- SIT B integration testing has completed successfully. BAT completed 20 September. UIT B testing began 22 September, and an invitation to join that testing was issued to industry.
- SSI User Guidance has been amended and will be made available to users through SharePoint (also linked from the SSI) at the point of deployment.

6. Next steps

- SEC Operations Group is asked to note the contents of paper and consider approval of the SIP for deployment in line with SEC November 2021 release (unless UIT B testing uncovers major issues).
- If approved the SIP will be deployed with the November 2021 SEC release.
- The SSI user guidance available to Users via SharePoint will be updated at the point of deployment.
- Notification of deployment will be included in November 2021 SEC Release communications.

7. Recommendations

The Committee is requested to:

NOTE the contents of this paper; and

AGREE to SIP#7 for deployment.

Attachments - none

David Rollason

DCC

05/10/2021