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DP187

‘Incorporation of Target Round Trip Times and Target Success Rates into the SEC’

Modification Report

Version 0.2

23 November 2021



About this document

This document is a draft Modification Report. It currently sets out the background, issue, and progression timetable for this modification, along with any relevant discussions, views and conclusions. This document will be updated as this modification progresses.

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1. Summary

This proposal has been raised by Katie Taaffe from the Data Communications Company (DCC).

As part of the Smart Energy Code (SEC) Modification [MP122A 'Operational Metrics'](#) solution (implemented as part of the February 2021 SEC Release), new Service Reference Variant (SRV) metrics reporting has been introduced. These reports, produced by the DCC Technical Operations Centre (TOC), measure the Round-Trip Times (RTTs) of messages but, in the absence of target RTTs, are then compared to the Target Response Times (TRTs) listed within the SEC.

This is resulting in a misleading view of the health of the Smart Metering system and, as a minimum, the DCC is keen to correct this by gaining industry agreement to baseline RTT targets within the SEC.

2. Issue

What are the current arrangements?

Target Response Times

TRTs are the target performance measures defined in SEC Appendix E 'DCC User Interface Services Schedule'. The TRTs are defined differently for Smart Metering Equipment Technical Specifications 1 (SMETS1) Devices and Smart Metering Equipment Technical Specifications 2+ (SMETS2+) Devices:

- **SMETS1 Devices** – starting from the DCC User Gateway and ending on provision of the Service Response to the User, but only counting the processing time between the DCC User Interface to the DCC SMETS1 Processing Systems (inclusive); and/or the DCC SMETS1 Processing Systems to the DCC User Interface (inclusive).
- **SMETS2+ Devices** – starting from the DCC User Gateway and ending on provision of the Service Response to the User, but only counting the processing time between the DCC User Interface to the Communications Hub (inclusive); and/or the Communications Hub to the DCC User Interface (inclusive).

TRTs set the expected performance for messages transiting the DCC networks and systems. They only measure performance within the DCC environment (DCC User Gateway to Communications Hub and reverse). They do not provide a holistic view of a message journey, as they do not measure the time spent on the Home Area Network (HAN).

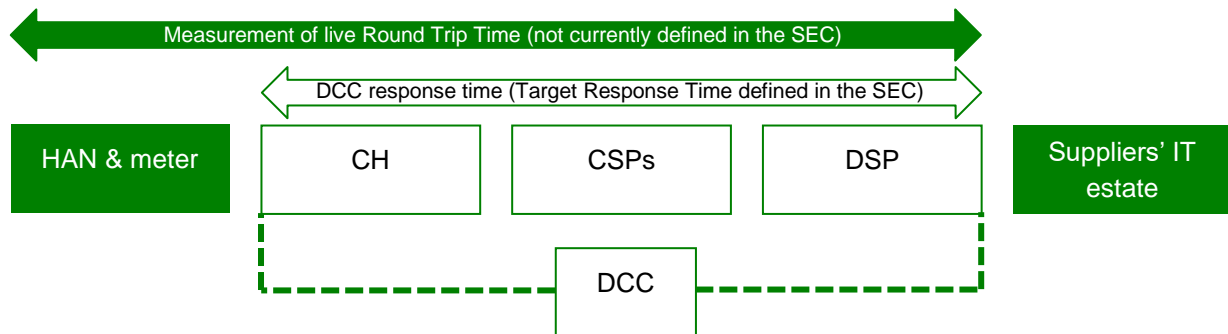
The DCC does not currently have the capability to measure TRTs at the individual SRV level and in real-time, as required by the MP122A legal text in Sections H13.1 and H13.1A. At present, the TRT reporting requirements are met using a combination of real-time and test messages.

Round Trip Times & Success Rates

RTTs are a performance measure that incorporate the end-to-end journey of a message. This includes HAN transfer and Device processing time. RTTs are currently measured by the DCC TOC following the implementation of MP122A. This has resulted in reporting RTTs and the Success Rates of a set of SRVs associated with different business processes. However, there are no existing targets

against which these measures can be compared. Furthermore, RTTs are not currently defined or included within the SEC.

Success Rates are a performance metric that measure the percentage of SRVs that were delivered, irrespective of the time taken. SEC Parties expressed interest in this metric during the DCC-led Operational Performance Regime (OPR) Working Group discussions and it was felt that if suitable targets could be developed, it may be a useful metric for Ofgem's new OPR.



CH – Communications Hub, CSP – Communications Service Provider, DSP – Data Service Provider, IT – Information Technology

What is the issue?

As part of the MP122A solution (implemented as part of the February 2021 SEC Release), new SRV metrics reporting has been introduced. These reports measure RTTs but are then compared to the TRTs listed within the SEC. The DCC has advised, through the OPR Working Group¹, that to report on TRTs in real-time and at an SRV level would cost around £3.5m-£5m. OPR Working Group members were unsupportive of this approach.

For DCC-only performance metrics there are the TRTs as defined in SEC Appendix E and adopted into contracts with the DCC's Service Providers. However, to create incentives against SEC Party metrics, target RTTs and target Success Rates are required. The DCC is raising this SEC Modification to develop and define these targets, and thus incorporate them into the SEC.

What is the impact this is having?

Impact on Ofgem's New OPR

The DCC's original objective was to define RTT and SR targets with the intention that these could be picked-up by Ofgem for the new OPR. However, it has become clear that to use RTTs and SRs as the basis on which to incentivise the DCC would be unreasonable and unworkable. This is because the DCC is not in complete control of all elements of the Round Trip of an SRV. However, it remains of upmost importance to Ofgem that the smart meter industry is supportive of the metrics and methodology that are used to monitor and report the health of the Smart Meter ecosystem. The Proposer considers that a SEC Modification is the best and most rigorous way to progress new targets for RTTs and Success Rates. There is also the added benefit that end-to-end SEC Party metrics is a first step towards collaboration across the industry which may lead to improvements in the experience for end consumers.

¹ [opr-systems-performance-recommendations-to-ofgem-final.pdf \(smartdcc.co.uk\)](https://smartdcc.co.uk/opr-systems-performance-recommendations-to-ofgem-final.pdf)

Impact on consumers

SEC Party metrics cannot be improved without a shared responsibility between the DCC and SEC Parties to collaborate and work together to improve the end-to-end performance. Therefore, if SEC Party metrics are incorporated into the SEC, along with appropriate targets, it is hoped that the end consumers will see the benefits of any improvement in performance.

Impact on DCC and SEC Parties

The DCC is currently reporting SRV performance in an Annex to the Performance Measurement Report (PMR). The TOC data used in this Annex primarily measures RTTs. However, at present there are no target RTTs against which to compare. As an interim, the RTTs in the Annex are compared to the relevant TRTs, to give a rating of performance. The Proposer considers this is resulting in an unnecessarily harsh and misleading view of the health of the Smart Metering system, which impacts both the DCC and SEC Parties who read the reports. As a minimum, the DCC is keen to correct this by gaining industry agreement to define target RTTs.

Discussions in the OPR Working Group and other forums have highlighted that, due to the physics of certain parts of the DCC network, some large messages are struggling to achieve the original TRTs set out in the SEC. This is a connected and important issue but will be separated out and discussed via another modification or workstream. The Proposer intends that this modification focuses solely on determining and introducing the appropriate RTT targets and reporting into the SEC and will not consider how the DCC will then meet these targets.

3. Assessment of the proposal

Observations on the issue

Views of the TABASC Chair

During the Development Stage SECAS engaged with the Sub-Committee Chairs for initial comments and recommendations. The Technical Architecture and Business Architecture Sub-Committee (TABASC) Chair raised concerns regarding the need for additional data transfer (such as timestamps) that will be required to measure RTTs. This increased volume could negatively impact DCC Systems and subsequent smart metering architecture. The TABASC Chair requested that the Proposed Solution is presented to the TABASC when ready.

Appendix 1: Progression timetable

This Draft Proposal was raised on 2 November 2021. SECAS will present the proposal to the SEC Sub-Committees to understand the impacts of the issue before presenting to the Change Sub-Committee (CSC) under the recommendation that the Draft Proposal is converted into a Modification Proposal and enters the Refinement Process.

Timetable	
Event/Action	Date
Draft Proposal raised	2 Nov 2021
Presented to SEC Sub-Committees for input	Nov 2021
Discussed with Sub-Committee Chairs at triage session	17 Nov 2021
CSC converts Draft Proposal to Modification Proposal	30 Nov 2021
Solution developed with the Proposer	Dec 2021 - Jan 2022
Modification discussed with the Working Group	2 Feb 2022
Modification discussed with the Operations Group (OPSG)	1 Mar 2022
Modification discussed with the Working Group	2 Mar 2022
Modification discussed with the TABASC	3 Mar 2022
Refinement Consultation	7 Mar – 25 Mar 2022
Refinement Consultation responses discussed with the Working Group	6 May 2022
Modification Report approved by CSC	17 May 2022
Modification Report Consultation	18 May – 7 Jun 2022
Change Board Vote	22 Jun 2022

Appendix 2: Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	Full term
CH	Communications Hub
CSC	Change Sub-Committee
CSP	Communications Service Provider
DCC	Data Communications Company
DSP	Data Service Provider
HAN	Home Area Network
IT	Information Technology
OPR	Operational Performance Regime
OPSG	Operations Group
PMR	Performance Measurement Report
RTT	Round Trip Time
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SMETS	Smart Metering Equipment Technical Specifications

Glossary	
Acronym	Full term
SR	Service Reference
SRV	Service Reference Variant
TABASC	Technical Architecture and Business Architecture Sub-Committee
TOC	Technical Operations Centre
TRT	Target Response Time