

MP217 ‘Obtaining Timestamps to allow Target Response Time Measurements’ Business requirements – version 0.2

About this document

This document contains the business requirements that support the solution(s) for this Modification Proposal. It sets out the requirements along with any assumptions and considerations. The Data Communications Company (DCC) will use this information to provide an assessment of the requirements that help shape the complete solution.

1. Business requirements

This section contains the functional business requirements. Based on these requirements a full solution will be developed.

Business Requirements	
Ref.	Requirement
1	The Data Service Provider (DSP) will measure the time taken for Service Reference Variants (SRVs) to reach the CSP and / or S1SP, measuring from receipt of the SRV from the Service User, the time taken in the DSP system to the time the SRV is passed to the CSP or S1SP.
2	The DSP will measure the time taken for SRV responses and Alerts to reach the Service User, measuring from receipt of the SRV response / Alert from the CSP or S1SP through to the time the SRV response / Alert leaves the DSP system and is passed to the Service User and the DSP receives the handshake from that Service User.
3	The CSP and / or S1SP will measure the time taken for SRVs to reach the Communications Hub / Home Area Network (HAN) border, measuring from receipt of the SRV from the DSP, the time taken in the CSP / S1SP system to the time the SRV reaches the Communications Hub / HAN border (or S1SP equivalent).
4	The CSP and / or S1SP will measure the time taken for SRV responses and Alerts to reach the DSP, measuring from receipt of the SRV response / Alert at the Communications Hub / HAN border (or S1SP equivalent), to the time it reaches the DSP.
5	The DSP / CSP / S1SP Reporting to Data Communications Company (DCC) should identify individual SRVs and Alerts, date, time and Global Unique Identifier (GUID) in a file format to be agreed with DCC.
6	Reporting will contain the performance of each SRV-type in the production system, dimensioned by region, meter type (ESME / GSME), and specification (SMETS1 / SMETS2) where applicable.
7	The DCC will receive all initial reports from Service Providers within 2 Working Days of month end, with a final report agreed with DCC within 5 Working Days of Month End.
8	Regarding reporting, each Service Provider shall exclude the time for any SRVs quarantined by the Anomaly Detection Attributes (ADA) or Anomaly Detection Threshold (ADT) processes.
9	The target levels for each Target Response Time (TRT) will be at 96% as a minimum, with an optimal level of 99% against contracted performance.
10	The DCC is to align its Service Provider contracts to these new performance standards that have been obtained through requirements 1, 2, 3 and 4 of this document.
11	The DCC's service performance is to be compliant against these new performance standards.

2. Considerations and assumptions

This section contains the considerations and assumptions for each business requirement.

2.1 General

This solution will be applied to Smart Metering Equipment Technical Specifications (SMETS)1 and SMETS2 Devices.

2.1.1 Operational Performance Regime

Issues with transparency of reporting and relevance of the measures contained within the DCC Performance Measurement Report (PMR) have arisen. In its monthly review of the PMR, the Operations Group (OPSG) has found it increasingly difficult to report to the Smart Energy Code (SEC) Panel on the issues within the report.

As a result of the issues encountered by the OPSG, the Operational Metrics Review (OMR) was undertaken to better understand the PMR measures, consider amendments and recommendations of new performance indicators.

A series of ten business processes and associated SRVs (as seen in the table in 2.1.3) were identified in the Ofgem's DCC Operational Performance Regime (OPR) Review seeking improved metrics for reporting. As part of SEC Modification [MP122A 'Operational Metrics'](#), the DCC delivered Round Trip Time (RTT) reporting rather than the TRT requested by Ofgem.

2.1.2 DCC Change Requests

Three Change Requests (CRs) were previously raised as part of the OPR Working Group, and these will form the basis for the changes required for under this modification. The previous CR numbers are used for reference at this stage. Service Providers will be able to use their responses for the three CRs as the basis for the new CRs.

The proposed business requirements have been drafted in reference to the three DCC CRs: CR4253 'Measuring SRV Responses and Alerts', CR4258 'System Availability', and CR4259 'Meeting Target Performance Levels'. The Proposed Solution business requirements can be categorised as follows:

- CR4253 'Measuring SRV Responses and Alerts'
 - Business requirement 1
 - Business requirement 2
 - Business requirement 3
 - Business requirement 4
- CR4258 'System Availability'
 - Business requirement 5
 - Business requirement 6
 - Business requirement 7
 - Business requirement 8
- CR4259 'Meeting Target Performance Levels'
 - Business requirement 9

- Business requirement 10
- Business requirement 11

2.1.3 Key Business Processes and SRVs for reporting

The TRT reporting that this Modification proposes to introduce will capture the below business processes and relevant SRVs:

Business Process	SRV	Description	SMETS1 Applicable
Install and Commission¹	8.11	Update HAN Device Log	Yes
	6.21	Request Handover of DCC Controlled Device (Update Supplier Certificates)	No
	8.1.1	Commission Device	Yes
	8.7.2	Join Service (Join GPF with GSME)	Yes
	6.20.1	Set Device Configuration' (Import MPxN)	No
	1.1.1	Update Import Tariff (Primary Element)	Yes
	6.8	Update Device Configuration (Billing Calendar)	Yes
	8.14.1	Communications Hub Status Update Install Success	No
Change of Supplier (Gain)	6.23	Update Security Credentials (CoS)	Yes
	1.1.1	Update Import Tariff (Primary Element)	Yes
	6.8	Update Device Configuration (Billing Calendar)	Yes
Change of Tenancy	3.2	Restrict Access for Change of Tenancy	Yes
Tariff Updates	1.1.1	Update Import Tariff (Primary Element)	Yes
Pre-Payment	1.6	Update Payment Mode (Payment Mode = Prepayment)	Yes
	2.1	Update Prepay Configuration	Yes
	2.2	Top Up Device (Update Balance with positive value)	Yes
Security and Key Management	6.15.2	Update Security Credential (Device) – Credential Type = Digital Signature	No
	6.15.2	Update Security Credential (Device) – Credential Type = Key Agreement	No
	6.17	Issue Security Credentials – Credential Type = Digital Signature	No
	6.17	Issue Security Credentials – Credential Type = Key Agreement	No
Update Device Firmware	11.1	Update Firmware <i>Note: In respect of SMETS2+ Devices the DCC must ensure that the associated firmware update has been delivered to all relevant Communications Hub Functions within five days of receipt of the Service Request.</i>	Yes
	11.3	Activate Firmware (Individual SR for each GUID for firmware activation) <i>Note: SMETS1 five-day Target Response Time.</i>	Yes
Logistics CH Ordering and Returns	8.14.3	Communications Hub Status Update – Fault Return	No
	8.14.4	Communications Hub Status Update – No Fault Return	No
Distribution Networks Post I&C Activity	6.15.1	Update Security Credentials (Update Network Operator Certificates)	Yes
	6.5	Update Device Configuration (Voltage)	Yes
	6.22	Configure Alert Behaviour (Update ENO Alter Configuration)	No
Meter Reads	4.6.1	Retrieve Import Daily Read Log	Yes
	4.6.2	Retrieve Export Daily Read Log	No
	4.8.1	Read Active Import Profile Data	Yes
	4.8.2	Read Reactive Import Profile Data	Yes
	4.8.3	Read Export Profile Data	Yes
	4.10	Read Network Data	Yes
	4.17	Retrieve Daily Consumption Log	No

¹ Note, although some of the SRVs listed under Install and Commission are applicable to SMETS1, the rollout of SMETS1 Devices has ended and therefore the overall Install and Commission business process is not applicable to SMETS1.

2.2 Requirement 1: The Data Service Provider (DSP) will measure the time taken for Service Reference Variants (SRVs) to reach the CSP and / or S1SP, measuring from receipt of the SRV from the Service User, the time taken in the DSP system to the time the SRV is passed to the CSP or S1SP.

The DSP is responsible for the SRV once it has been received from the Service User, to the time it passes through its system and reaches the CSP or S1SP. Timestamps at either end of this segment of the journey will allow the DCC to understand how long it takes each SRV to pass through the relevant Service Provider's remit.

2.3 Requirement 2: The DSP will measure the time taken for SRV responses and Alerts to reach the Service User, measuring from receipt of the SRV response / Alert from the CSP or S1SP through to the time the SRV response / Alert leaves the DSP system and is passed to the Service User and the DSP receives the handshake from that Service User.

The DSP is responsible for the SRV response / Alert once it has been received from the CSP or S1SP, to the time it passes through its system and reaches the Service User. Timestamps at either end of this segment of the journey will allow the DCC to understand how long it takes each SRV response / Alert to pass through the relevant Service Provider's remit.

2.4 Requirement 3: The CSP and / or S1SP will measure the time taken for SRVs to reach the Communications Hub / Home Area Network (HAN) border, measuring from receipt of the SRV from the DSP, the time taken in the CSP / S1SP system to the time the SRV reaches the Communications Hub / HAN border (or S1SP equivalent).

The CSP / S1SP is responsible for the SRV once it has been received from the DSP, to the time it passes through its system and reaches the Communications Hub / HAN border. Timestamps at either end of this segment of the journey will allow the DCC to understand how long it takes each SRV to pass through the relevant Service Provider's remit.

2.5 Requirement 4: The CSP and / or S1SP will measure the time taken for SRV responses and Alerts to reach the DSP, measuring from receipt of the SRV response / Alert at the Communications Hub / HAN border (or S1SP equivalent), to the time it reaches the DSP.

The CSP / S1SP is responsible for the SRV response / Alert once it reaches the Communications Hub / HAN border, to the time it passes through its system and reaches the DSP. Timestamps at either end of this segment of the journey will allow the DCC to understand how long it takes each SRV response / Alert to pass through the relevant Service Provider's remit.

2.6 Requirement 5: The DSP / CSP / S1SP Reporting to Data Communications Company (DCC) should identify individual SRVs and Alerts, date, time and Global Unique Identifier (GUID) in a file format to be agreed with DCC.

Breaking down the data into these data fields will allow the DCC to process the data received and identify trends and potential errors more easily.

2.7 Requirement 6: Reporting will contain the performance of each SRV-type in the production system, dimensioned by region, meter type (ESME / GSME), and specification (SMETS1 / SMETS2) where applicable.

Breaking down the data to this granularity will enable the DCC to carry out detailed analysis of the monthly performance of each SRV.

2.8 Requirement 7: The DCC will receive all initial reports from Service Providers within 2 Working Days of month end, with a final report agreed with DCC within 5 Working Days of Month End.

These timescales will provide sufficient time for the DCC to analyse the reports and prepare them for presentation to the Operations Group (OPSG).

2.9 Requirement 8: Regarding reporting, each Service Provider shall exclude the time for any SRVs quarantined by the Anomaly Detection Attributes (ADA) or Anomaly Detection Threshold (ADT) processes.

Where there is an ADT quarantine, the SEC Party can release at up to 30 days later. If a SEC Party chooses to release data from quarantine this will skew reported data unless this time is stripped out. During solution development, the DCC will develop a list of exceptions, in regards to SRVs that will not be part of TRT reporting.

2.10 Requirement 9: The target levels for each Target Response Time (TRT) will be at 96% as a minimum, with an optimal level of 99% against contracted performance.

These percentages will align with the current TRT target levels in the SEC.

2.11 Requirement 10: The DCC is to align its Service Provider contracts to these new performance standards that have been obtained through requirements 1, 2, 3 and 4 of this document.

This will ensure that the DCC's Service Providers are under contract to deliver an agreed level of performance.

2.12 Requirement 11: The DCC's service performance is to be compliant against these new performance standards.

The DCC being compliant with the agreed new performance standards will mean that the DCC and its Service Providers are delivering an agreed level of service to Users.

3. Solution development

This section contains a must-have, should-have, could-have, won't-have (MoSCoW) analysis for the different requirement components to be considered as part of the solution.

MoSCoW Analysis		
Requirement Ref.	Description	MoSCoW
1.1	The timestamps taking place at the checkpoints stated in Requirement 1.	M
2.1	The timestamps taking place at the checkpoints stated in Requirement 2.	M
3.1	The timestamps taking place at the checkpoints stated in Requirement 3.	M
4.1	The timestamps taking place at the checkpoints stated in Requirement 4.	M
6.1	Reporting at an individual SRV level to allow for detailed analysis.	S
7.1	Delivering the reports in the time stated in Requirement 7 to allow for sufficient reviewing time.	S
8.1	Discarding SRVs that have been quarantined by ADA or ADT processes to prevent skewed data.	M
10.1	Alignment of contracts with the SEC to ensure performance levels are delivered to Users.	S
11.1	Performance to be within the agreed percentage thresholds to prevent noncompliance.	S

Key

- M = Must have
- S = Should have
- C = Could have
- W = Won't have

4. Glossary

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

Glossary	
Acronym	Full term
ADA	Anomaly Detection Attributes
ADT	Anomaly Detection Threshold
CSP	Communication Service Provider
DCC	Data Communications Company
DSP	Data Service Provider
GUID	Global Unique Identifier
OPSG	Operations Group
S1SP	SMETS 1 Service Provider
SMETS	Smart Metering Equipment Technical Specifications
SRV	Service Reference Variant
TRT	Target Response time