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SECMP0067 'Service Request Traffic Management'

Annex D

Legal text – version 1.0

About this document

This document contains the redlined changes to the SEC that would be required to deliver this Modification Proposal.

Section H 'DCC Services'

These changes have been drafted against version 8.0 of Section H.

Add Section H3.29 as follows:

H3.29 The DCC shall implement a Service Request Management Mechanism that will throttle Service Requests in the event of the DCC Systems' capacity threshold being breached.

Appendix AB 'Service Request Processing Document'

These changes have been drafted against version 2.0 of Appendix AB.

Add new Sections 15.4 to 15.6 as follows:

15.4 The DCC shall ensure processed Service Requests are subject to the Service Request Management Mechanism defined in the Service Request Traffic Management Mechanism Document. Any changes to this document shall be prepared and consulted upon by the DCC and approved by the Panel.

15.5 The DCC shall ensure that the Service Request Management Mechanism adheres to the following parameters:

a) Each Service User has potentially multiple (up to 7) User Roles [e].

b) The number of Weighted smart meters [TM] by User Role [e].To reflect the varying range of Service Requests available to each User Role, each User Role is weighted by the Charging Group Weighting Factor, as defined in Section K (Charging Methodology), for the Charging Group that corresponds to each User Role.

15.6 The following elements used in the Service Request Management Mechanism are specified in the Service Request Traffic Management Mechanism Document:

a) The Service User Capacity Allocation [THRu] formula;

b) The Parameters [TMe] for determining the Service User Total Throughput Allocation [THRu] formula;

c) Available Service Capacity [ASC]. Calculated by Total System Capacity (TSCw) minus the System Buffer (BSCw);

d) Smart Meter volumes weighted by User Role used in the Service Request Management Mechanism; and

e) A worded explanation of the Service User Capacity Allocation formula, its

rationale and how it functions.

Appendix AD 'DCC User Interface Specification'

These changes have been drafted against version 3.1 of Appendix AD.

Add to Section 2.7 as follows:

Only the following HTTP Response Codes shall be used by the DCC for each of their Web Services:

200 The message has been accepted by the DCC Systems. An XML response object is returned to the User, this contains a Response Code that indicates whether the request has passed or failed the business rules for the Service Request.

Note that it is possible for a request to be syntactically correct, but fail subsequent validation. Successful Service Requests will return a Response Code with the prefix "I" (Information) or "W" (Warning). Failed Service Requests will return a Response Code with the prefix "E" (Error).

300 The recipient requires that the client redirect its request to the alternative URL provided in the location header field.

400 Bad Request – Indicates that the syntax of the request is invalid and the DCC Systems are unable to parse the request.

429 Too Many Requests – Indicates that Service Request Traffic Management is in operation, the User has sent too many requests and this request is being rejected.

500 Internal Server Error – Indicates that the DCC Systems are malfunctioning.

The User shall send to DCC standard HTTP Response Codes in response to each Service Response, Device Alert and DCC Alert that it receives on its Receive Response Web Service.

Only the following HTTP Response Codes shall be used by the User for each of their Web Services:

200 The User has accepted the message.

300 The recipient requires that the client redirect its request to the alternative URL provided in the location header field.

400 Bad Request – Indicates that the syntax of the request is invalid and the User Systems are unable to parse the request.

429 Too Many Requests – Indicates that Service Request Traffic Management is in operation, the User has sent too many requests and this request is being rejected.

500 Internal Server Error – Indicates that a User's Systems are malfunctioning.

Add to Section 2.10, Table 8 as follows:

Error Scenario	Behaviour
DCC Systems unavailable	The DCC shall notify Users if the DCC Systems are unavailable using a HTTP Response Codes of 503 – Service Unavailable (as defined in clause 2.7). This notification may be before the User notices that this is the case. In the absence of any such notification, where a User is unable to access the DCC Services, the User shall check connectivity of their own systems, check for known issues, and for notifications on the Self Service Interface (SSI) before investigation into DCC Systems is performed. If DCC Systems are persistently unavailable, the User may raise an Incident with the DCC.
Invalid Service Request or access control failure	Under these circumstances, the DCC shall return a Service Response with the appropriate Response Code – See clause **Error! Reference source not found.**.
Too Many Service Requests	When the volume of Service Requests into the DCC System exceeds the system capacity, then the Service Request Traffic Management system will reject non-Priority Service Requests from a User that is exceeding their capacity allocation. Under these circumstances the DCC System shall respond with an HTTP Response Code of 429 – Too Many Requests. The User system shall reduce their request submission rate and re-attempt the failed Service Requests after at least the delay period indicated in the RETRY-AFTER field of the HTTP response.

Table 1 : General error handling