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SECMP0067 ‘Service Request Traffic Management’

Working Group Meeting 2

21 January 2019, 13:30 – 15:30, Gemserv’s Offices

Meeting Summary

Updates from previous meeting

The Working Group meeting began with addressing the actions from the last Working Group meeting on 4 January 2019. The DCC provided a paper listing the actions they have taken since that meeting. The DCC confirmed that there is no current BEIS or DCC plan to use a cloud based system for a Production environment. They also confirmed that their initial view on all Service Request Variants (SRVs) that the modification would consider prioritising should be those affecting Pre-Payment and SRV 7.4.

They further suggested that there should be a review of the “on-demand” SRVs in this priority list and remove any deemed ‘non-critical’ on the basis it would defeat the purpose of the list by prioritising non-essential requests. This was a view that the other Working Group members shared, noting there would be little point in the solution if most SRVs were exempt from it.

A Working Group member raised a concern that any solution being raised could have implications for their adapter costs and requested how much this would cost at an individual SEC Party level rather than across the industry.

The DCC presented some recent examples of events that could have potentially overloaded the system and required demand management. The Working Group noted the example from December 2018 where an abnormally large number of service requests had been submitted in a period, which had triggered HTTP 503 messages to be returned. The Working Group felt it needed more information on this example before it could judge whether it was a suitable case study, though one member was concerned whether the DCC’s systems had been built to withstand large volumes of traffic. The recent Telefonica network outage was also noted, and a member requested information on how traffic was managed by the DCC in the period immediately following its restoration.

The DCC was able to provide details over the additional functionality of a solution including a queuing mechanism. They noted that, compared to the originally designed solution plans that had been discussed with their service providers, this additional feature would likely significantly increase the lead time and overall cost of a solution. In its current state, with no additional requirements, the DCC estimated that the currently proposed solution would have a cost of the ballpark of six figures. The majority of Working Group members did approve of the idea of investigating a queuing feature in a solution design, and therefore agreed that the draft business requirements should be amended to consider both approaches. This would allow members to compare and contrast the expense of each solution to better provide a cost benefit analysis.

The DCC provided a worked example to the Working Group to demonstrate how their proposed Service User capacity allocation would work in practice. A Working Group member queried how this

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would work for a Supplier with a combined gas/electricity portfolio, which the DCC noted was accounted for in the calculation by allocating each User a share per role they operate, with these being aggregated at the end. A Working Group member also noted the calculation was based on portfolio size and stated it needed to ensure Users such as Network Parties without portfolios would also be suitably accounted for in the calculation. They wanted to ensure the calculation did not give undue preference based on size and portfolio.

One Working Group member noted that Supplier parties do not all act in a uniform way, choosing to send through Service Requests at different times and saying that this could have adverse effects on the DCC System. An example stated was large numbers of prepayment customers tending to top up on Monday mornings following the receipt of benefit payments.

One member queried if service credits should be given to any Users subjected to demand management, in response to not being able to send all their messages when they needed to. They also queried if this solution was a means for the DCC to get out of contractual obligations around providing system capacity, but the Working Group agreed that this is an area for the Panel and Ofgem to consider and was not something for this Working Group to debate.

The DCC confirmed that the DSP has provided more than ample network capacity, with a 1Gbit connection allowing for around 50,000 messages per second, and that any constraints would be within the DSP systems. They noted they use models agreed with DECC at the time of contract to convert User's monthly forecasts into potential per-second traffic loads including a range of peaking factors, and they continue to refine these principles with Users to ensure they remain suitable. The DCC noted the systems can currently handle around 500 requests per second, which is enough for the current level of Devices on the systems.

Solution requirements

SECAS presented an initial draft of the business requirements based on the agreed solution requirements discussed in the first meeting.

The Working Group discussed the draft business requirements the modification's solution should be built against. The following draft requirements were discussed:

Requirement 1: The DCC will clearly define a formula/calculation that will be used to allocate individual Service User capacity in the event of the DSP capacity threshold being breached.

One Working Group member enquired into Service Users who use the DSP but have no 'portfolio', as mentioned in the requirement. The Working Group agreed that this should be amended to account for Users that don't have a portfolio.

Requirement 2: The DCC System will include a clearly defined and configurable list of Priority and non-Priority Service Requests for when the solution's mechanism is operational.

One Working Group member questioned the inclusion of Service Requests that are associated with installing, commissioning and de-commissioning smart metering equipment. Other Working Group members agreed to this on the rationale that this wouldn't be a priority choice in the event of scenarios where the DSP would need to manage Service Request usage.

Another Working Group member raised that the proposed list of SRVs that weren't future dated or scheduled requests with a target response time of 30 seconds will need to be further refined to produce a specific list. The Working Group agreed to review the list and refine it so that only critical SRVs with the 30 second target response time should remain.

Discussion was raised over the implementation approach, as between the governance processes and the lead time associated with this modification, it may not be implemented for another 18 months. This raised concern that there should be an interim approach which could be sought by having a DUIS-free list to be brought in sooner. It was noted that the risk of needing demand management exists now, and such an event could happen tomorrow, but that it was important to ensure the solution being implemented was correct first time, rather than rush something in and need to rework it later.

Requirement 3: Service User capacity allocations will be updated monthly.

One Working Group member raised that Service Users was too broad a term to use for the solution, given every SEC Party uses the DCC Systems but won't need a capacity allocation to send service requests. The Working Group agreed to find a term that better distinguishes between the Service Users who would require DSP capacity allocation and those who wouldn't.

The Working Group members challenged the idea of a monthly update for Service User allocations. Working Group members raised that a monthly timescale for updates may be too slow to account for changes in the interim. Given that Change of Supplier events, particularly in a faster switching environment, will result in potentially large shifts of market share and smart metering equipment, the updates needed to reflect that in a timely manner.

The Working Group agreed to amend this section of the requirement to find an optimum timescale to update on that would better suit the industry. To explore additional timescale options, suggestions were made for the updates to be made daily, or to explore a suitable balance of efficiency and timeliness, noting that the allocation calculation is based on the monthly forecasts submitted by Users.

The Working Group also requested the requirement be clarified so that a User's allocation is made known only to them, and that a suitable lead time for notification of allocation was specified.

Requirement 4: The solution will consider the effects of outages of the DSP systems, including (but not limited to) system maintenance and unexpected circumstances, on any subsequent traffic through the DCC Systems.

The Working Group members agreed with this requirement and had no further comments.

Requirement 5: The DCC will provide a transparent reporting process to update Service Users on when throttling has taken place.

One Working Group member raised that the requirement must not allow public reporting of the names of Service Users that are found using over and above their capacity allowance in any reporting practice; instead that these names should be brought to the Panel confidentially. Other Working Group members agreed to this amendment.

Discussions took place around the reporting that would take place under this requirement. Monthly reporting was suggested, which could be revised if another timescale was preferred so long as it was

timely and that members agreed. In any event, members wanted the requirements to clarify that reporting would begin immediately upon implementation.

Clarity was sought over the process that would be undertaken to alert Service Users that their Service Requests are in the process of being throttled. The DCC suggested they use the HTTP reporting method, to which some Working Group members agreed. Members suggested a more specific response/alert could be created, rather than the standard 503 response, to deliver this information. The DCC noted the cost to create a new HTTP notification would be negligible, and these would be returned near-instantaneously, while a new DCC Alert would incur more cost and would likely be less timely.

One Working Group member raised the idea of an early warning system to Service Users before capacity allocations are breached. They suggested this could be used to provide information to Service Users so that they don't unknowingly exceed their defined capacity allocation. While this would not work if someone instantly hit the threshold, such as through submitting a single batch of requests, or a system fault, it could be useful for participants submitting large numbers of requests over a period of time

One member felt the requirements needed to provide for a mechanism for the Panel to perform a post-event review whenever the demand management solution had been used. Other members were not convinced this is needed, as the Panel would receive the reports and could choose to investigate particular events further if it wanted under existing provisions.

Further actions

Further actions that were agreed to be taken are the following:

- SECAS will edit the business requirements for the proposed solution with the amendments mentioned in this summary. These are to be prepared for correspondence with the Working Group in the week beginning 28 January 2019. SECAS will also liaise with Working Group members to find out further details that may positively impact the solution.
- SECAS will produce and circulate a specific list of the SRVs from the draft business requirements, for input as to which ones are deemed 'critical'. This will be used to provide a specific list of critical SRVs to include in the business requirements.
- Working Group members will review and provide any further thoughts on the business requirements and critical SRVs and agree on these before requesting a Preliminary Assessment.
- The DCC will find out more information to provide to the Working Group over the recent HTTP 503 outage major incident that was cited in their update and on the Telefonica outage.