MP122A 'Operational Metrics' & MP122B 'Operational Metrics – Part 2'

Working Group Meeting summary – 14 October 2020

Attendees

Attendee	Organisation
David Kemp	SECAS
Joe Hehir	SECAS
Joey Manners	SECAS
David Walsh	DCC
Easton Brown	DCC
Oliver Bridges	DCC
David Rollason	DCC
Michelle Bingham	DCC
Rochelle Harrison (part meeting)	British Gas
Mahfuzar Rahman	Scottish Power
Eric Taylor (part meeting)	SLS
Matthew Alexander	SSEN
Rachel Norberg	Utilita

MP122B 'Operational Metrics – Part 2'

Summary

The impacts of MP122B 'Operational Metrics – Part 2' will be limited to the Data Communications Company (DCC) and its Service Providers. The costs to fully deliver the metrics which are dependent upon contractual changes between the DCC and its Service Providers have been estimated at

between £7.8m and £12.4m; these costs have only been provided in a Preliminary Assessment, and have been split out over several Change Requests.

Overview of Change Requests

The following overview of Change Requests (CRs) were provided by the DCC in September 2020. Since then the DCC has provided updated costs for each of these CRs and these are referenced in the table below.

Breakdown of Preliminary Change Request costs					
Change Request	Title	IA cost	IA duration (max)	Implementation cost (est.)	Implementation timescales
CR 1418	Throughput of Alerts	£8,702	30 days	£300,000 to £450,000	3 months
CR 1420	Incident reporting to support revised PMR	£211,000	30 days	£450,000 to £550,000	1 month
CR 1421	SRV 11.1 (Update Firmware)	£200,000	50 days	£4,000,000 to £4,500,000	12 months
CR 1423	Comms Hub Firmware Image Data	£180,000	50 days	£1,200,000 to £1,400,000	12 months
CR 1429	Additional CSP Reporting to validate 90 Day No SMWAN Incidents	£24,965	30 days	£300,000	3 months
CR 1430	PMR reduced timescales	£170,000	50 days	£800,000 to £1,200,000	6 months
CR 1438	Throughput of Alerts	£210,000	50 days	£1,600,000 to £2,000,000	6 months
CR 1440	SRV 11.1 (Update Firmware)	£120,000	50 days	£1,450,000 to £1,850,000	12 months
Total		**£1,124,667**		**£10,100,000 to £12,250,000**	

Working Group review of the Change Requests

CR1418 'Throughput of Alerts'

The Operational Metrics Review (OMR) and Working Group members highlighted more detailed metrics for Alerts are needed. Currently the DCC can only measure Alerts once they are received by and then sent from the Data Services Provider (DSP). Under MP122A 'Operational Metrics' the DCC highlighted that Service Provider changes were needed in order to measure the full journey of Alerts i.e. from the Device, to the Communications Hub, to the Communications Services Provider (CSP), to the DSP, to the Service User and vice versa. It was therefore agreed that as an interim measure to meet the 1 April 2021 deadline, the DCC would report only on the volume of Alerts and when they have been sent to the Service User.

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CR1418 has been raised to assess the DSP impacts for measuring Alerts from the point they are received by the Communications Hub to when they are validated by all of the applicable Service Providers and to when the Service User has confirmed receipt of the Alert. This CR also assesses the impact to the DSP for providing this data to the Technical Operations Centre (TOC) at intervals of 15 minutes.

The DCC noted that a CR is already in progress for the Network Operator specific Alerts targeted for implementation in December 2020. It does not fall within the scope of this modification and the costs of this CR would be covered by the DCC.

SECAS questioned whether the Working Group saw enough benefit in measuring the full journey of Alerts or if members were happy with the interim approach. Members felt they needed more time to investigate this and it was agreed SECAS would issue a questionnaire to the Working Group covering each of the CRs.

CR1438 'Throughput of Alerts'

CR1438 has been raised to assess the impacts of measuring Alerts from the point they are generated from the Home Area Network (HAN) to the Communications Hub and from the Communications Hub to the DSP. The impacts of this CR are limited to the CSP for the North Region and the SMETS1 Service Providers. SECAS noted the data this CR aims to provide is already available for the for CSP South and Central Regions and visible to the DSP, hence why they are not impacted.

The DCC noted that this CR will require changes to the SMETS1 system, with consequential Pre-Integration Testing (PIT), Systems Integration Testing (SIT), and User Integration Testing (UIT).

The DCC added that one Service Provider believes it cannot provide data for Alerts received by the Communications Hub Function (CHF). However, the DCC is challenging this as it believes it should have this data.

As with CR1418, the Working Group felt it needed more time to assess the benefits of this CR and assess whether it should be taken forward. This would be covered by the SECAS questionnaire for the Change Request.

CR1420 'Incident reporting to support revised PMR'

CR1420 relates to requirement 5 of the MP122 business requirements. This requirement is for the DCC to improve transparency in the reporting provided for incident Categories 3, 4 and 5. This is to be supplemented with the following metrics;

- the number of Incidents per Category 3, 4 and 5 raised in the reporting period,

- the number that met the Target Initial Response Time; and

- the number that met the Target Resolution Time.

CR1420 has been raised in order for the Service Providers to reduce their validation timescales of the above metrics in order to meet the new 10 working day Service Level Agreement (SLA). The DCC noted there is a low risk that its Service Providers won't be able to deliver these changes in time for the April 2021 reporting year.

The Working Group agreed that improved Incident metrics is a core requirement and that this CR should be progressed further.

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CR1429 'Additional CSP Reporting to validate 90 Day No SMWAN Incidents'

CR1429 relates to the following Indicator which the DCC has been asked to deliver:

> *Measure daily total volume of Install and Commission versus Install and Leave.*
>
> *The reporting is to include a category for any Communications Hubs awaiting a decision that are still within the 90-day investigation period for Install and Leave.*

The DCC has confirmed that it can already monitor the volume of Service Reference Variant (SRV) 8.14.1 'CH Status Update – CHF Install Success SM WAN' against SRV 8.14.2 'CH Status Update – CHF Install Success No SM WAN'. However, the DCC noted many Suppliers either don't send an SRV 8.14.1 or 8.14.2, or where there is no WAN, they raise an Incident instead of using SRV 8.14.2.

To reflect Supplier behaviour in the metrics, CR1429 has been raised so the DCC can see CSP data for all of the Incidents raised against them for no Wide Area Network (WAN), not just those that have been raised via SRV 8.14.2. The DCC would then be able to report the total number of installations against no WAN installations.

An Operations Group member questioned the use of this CR and suggested that instead the DCC look to work with those Suppliers not following the correct commissioning processes, especially in no-WAN events. They believed that this would also be a cheaper alternative to progressing this CR.

Of all the CRs, the Working Group believed this to be the lowest priority and potentially could be delayed.

CR1430 'PMR reduced timescales'

MP122A is currently with the Authority for decision. If approved, it will implement a change to SEC Section H 'DCC Services' that would require the DCC to produce the Performance Measurement Report (PMR) within 10 working days from the end of the reporting period. CR1430 has been raised by the DCC for all 13 of its Service Providers to validate both new and existing metrics and return this to the DCC within the required SLA.

The DCC noted that this CR has a very high impact and that one Service Provider has already advised that it would not be possible to meeting the new 10 working day SLA. The DCC is investigating this.

An Operations Group member highlighted that the current 25 working day SLA in the SEC is too long and makes it difficult for the Operation Group to highlight issues when having to look at data that is up to two months old.

SECAS requested the DCC provide more detail on what data is subject to this CR. The DCC agreed to investigate exactly which metrics are impacted by this CR and advise what the reporting would look if it were not to be implemented. The DCC also agreed to investigate the impact on the metrics from the Service Provider who advised it not possible to facilitate the new ten working day SLA.

The Working Group noted the high estimated implementation costs up to the end of PIT (£800,000 to £1.2m) and questioned whether these costs included any ongoing application support costs. The DCC agreed to investigate this and split the Application Support costs from the implementation costs if there are any.

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Change Requests for firmware metrics

SECAS noted that the requirements to measure the distribution of firmware Images to Communications Hubs, SMETS1 Devices and SMETS2 Devices are dependant on Service Provider changes and that Ofgem has been made aware of this. As an interim measure the DCC will provide metrics for the success of SRV 11.3 'Activate Firmware'.

SECAS advised that the following three CRs have been raised to provide the full firmware metrics requested by the Working Group and Ofgem:

- CR1421 'SRV 11.1 (Update Firmware)'

- CR1423 'Comms Hub Firmware Image Data'

- CR1440 SRV 11.3 (Activate Firmware) for SMETS1 Devices'[1]

These are all dependent on Smart Metering System changes, and will require PIT, SIT and UIT, with costs for latter two testing phases not yet determined. In addition, they would impact the GB Companion Specification (GBCS), the DCC User Interface Specification (DUIS) and potentially other Technical Specifications.

SECAS noted that there is some overlap between two of these CRs and SECMP0007 'Firmware updates to IHDs and PPMIDs'. If SECMP0007 is approved, CR1421 will not be needed and CR1423 will be significantly reduced in scope.

CR1421 'SRV 11.1 (Update Firmware)'

CR1421 will look to link SRV 11.1 'Distribute Firmware' to the target Device responses sent and received within the CSP systems to identify whether the Firmware Image has been successfully applied to the Device(s)

In addition, this CR also looks to assess the impact of the Service Providers subsequently providing the required data to the TOC on a daily basis identifying the throughput.

A Large Supplier questioned why the DCC could not just measure the corresponding Alert to SRV 11.1. The DCC explained that Alerts aren't always generated by meters and there are a number issues around this area. The Supplier then questioned why the DCC aren't looking to fix the root issue with Device Alerts. The DCC advised that this is a difficult fix due to the number of meter Manufacturers and therefore nuances in the issues caused.

The Working Group agreed to re-visit this CR once a decision has been received for SECMP0007, as if that modification is approved, this CR will not be needed.

CR1440 SRV 11.3 (Activate Firmware) for SMETS1 Devices'

CR1440 has been raised for the SMETS1 Service Providers to report the success or failure and Round-Trip Time of both the upload and activation of Firmware Images to individual Devices (including Communications Hubs). In addition, this data is then to be made available to the TOC daily identifying throughput.

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[1] Formally titled 'SRV 11.1 (Update Firmware)' in the DCC's Preliminary Assessment for the Change Requests. It was agreed the title would be updated to better reflect the aim of the CR.

Note, this CR is required irrespective of whether SECMP0007 is approved or not.

The DCC highlighted that the SMETS1 firmware process works differently from SMETS2. For SMETS1 Devices, SRV 11.1 sends the firmware Image to the SMETS1 Service Provider, whereas in SMETS2 it would send it straight to the target Device. SRV 11.3 for SMETS1 Devices then instructs SMETS1 Service Provider to distribute the Image to the Device and then activate it.

One member noted that SR 11.3 stops at the SMETS1 Service Provider (S1SP) for SMETS1 Devices, and that the Communications Hub is produced by the Device manufacturer. They asked what the difference was, and whether the manufacturer could handle this.

The DCC noted that there are instances where the reporting mechanism will only be available where those SMETS1 Devices actually provide the required Alerts. The aim of this CR is to harmonise reporting.

For example, IOC/MDS Prepayment Meter Interface Devices (PPMIDs) do not support the capability of returning an acknowledgement upon receipt of a firmware Image. As a result, the DCC proposed that for PPMIDs the reporting mechanism will only report the distribution status to the Communications Hub. The Working Group agreed with this approach.

The Working Group agreed that improved SMETS1 firmware reporting metrics is a core requirement and should therefore not be dropped.

CR1423 'Comms Hub Firmware Image Data'

CR1423 has been raised so that the DCC can measure firmware Images sent to update Communications Hubs and for this data to be provide to the TOC on a daily basis. SECAS advised that firmware updates to Communications Hubs are invisible to the DCC as they are sent directly on the CSP and SMETS1 Service Provider networks.

The original estimated implementation costs for CR1423, up to the end of PIT, were £2.5m-£3.5m. The DCC advised that after investigation this cost has since reduced to £1.2m-£1.4m.

SECAS noted that this CR will be significantly reduced in scope if SECMP0007 is approved.

A member questioned the impact SECMP0024 'Enduring Approach to Communication Hub Firmware Management' would have on this CR. SECMP0024 proposed to provide an Alert to Suppliers upon activation of firmware Images on Communications Hubs. The DCC agreed that if SECMP0024 was to be approved with its current Proposed Solution, CR1423 would further reduce in scope.

Next steps

The following actions were recorded from the meeting:

- SECAS will issue a questionnaire to Working Group members asking for their view on the priority of each CR and whether they should all be progressed to an Impact Assessment.

- In relation to CR1430, the DCC is to investigate and advise exactly which metrics are impacted by this CR and advise what the reporting would look if it were not to be implemented.

- In relation to CR1430, the DCC is to investigate the impact on the metrics from the Service Provider who advised it not possible to facilitate the new 10 working day SLA.

- In relation to CR1430, the DCC is to advise if the estimated implementation costs include any Application Support costs, and if so, what these are.

MP122A 'Operational Metrics'

Summary

MP122A 'Operational Metrics' seeks to implement the DCC internal and TOC changes, as well as interim approaches for the most affected metrics in order to improve the transparency of the PMR. MP122A is currently with the Authority for decision.

In previous Working Group meetings, it was agreed that the design of the updated PMR would be assessed during the design phase of the modification. This was in order to prevent any delay to the modification so if a decision to approve is received, the DCC would have enough time to implement the modification by the 31 March 2021 deadline.

Options for reporting presentation

The DCC presented a range of options for the way in which each metric would be presented including an estimate of how many pages the presentation of the metrics would result in. In total, the lowest number of pages would result in 165 pages and the highest 1470 pages.

The Working Group agreed it would be counterproductive to reduce the SLA for the DCC to deliver to the PMR, but at the same time increase the reporting by potentially thousands of pages.

The Working Group agreed to use the presentation method that resulted in fewest number of pages for all of the metrics except for business requirement 2.2.8 'Alerts Management'. For this requirement, the Working Group agreed it would be useful not only to see a graph showing the volume of Alerts, but that a breakdown of CSP Region would also be useful. This resulted in four pages of reporting for this requirement instead of a possible one page. The DCC highlighted that this presentation method would only show a combined figure of all the Alerts to which the Working Group accepted.

SECAS asked the DCC to clarify that if by choosing the lowest level of detail for each requirement, if any requirements would effectively be lost. The DCC confirmed that no requirements will be lost because of this; it just means that a breakdown for some of the metrics ill only be provided upon request, likely by the Operations Group.

Business requirement 3 requests the DCC to measure end to end Service Availability across each of the DCC Interfaces and report this by CSP region. A member questioned if the DCC's proposed presentation method include commentary. The DCC confirmed that it would only include the current level commentary which is already given for Incident Categories 1 and 2.

Agreed reporting methods

The following methods were agreed for presenting the metrics:

Breakdown of agreed presentation of metrics		
Business requirement section	**Detail**	**Est. number of pages**
2.1.1 – Measuring SRVs	34 SRVs included across the 10 business processes Single graph and table per SRV as per the business requirements document with room for commentary as necessary - One page per SRV	34
2.1.2 – Measuring Alerts	Approximately 60 Alerts. Single graph and table per Alert as per business requirements document.	60
2.2.1 – Measuring Success of key business processes	Pivot table style output with Service User vertically and Device Type / Region horizontally. Values show number of attempted iterations of a business process and how many returned a failure Alert or no response.	15
2.2.2 – Install and Commission	Pivot table style output with Service User vertically and Device Type / Region horizontally	15
2.2.3 – Change of Supplier (M1)	Pivot table style output showing daily Success with Service User vertically, day of month horizontally, all Devices and Regions	3
2.2.3 – Change of Supplier (M2)	Pivot table style output showing daily Success with Service User vertically, all Devices and Regions horizontally (six pages – three per SRV)	6
2.2.3 – Change of Supplier (I1)	Commentary	1
2.2.3 – Change of Supplier (I2)	Pivot table style output with Service User vertically and all Devices / Regions horizontally	3
2.2.4 – Meter Reads	Monthly graph showing success / failure of combined SRV's. Graphical output doesn't separate per SRV, four graphs per page. All Devices on one page, one page per Region	4
2.2.5 – Prepayment (PP1, M1)	Anonymised league table, no need for daily breakdown. Two Devices, four Regions. Dependant on number of Service Users. Two pages giving breakdown by region per Device type (2)	4
2.2.5 – Prepayment (PP1, I1)	Similar layout to above but may be possible to combine onto the same graph as M1 above.	4
2.2.5 – Prepayment (PP1, I2)	Similar layout to above, two pages for all Service User and Regions then by Device type	4
2.2.5 – Prepayment (PP2, M1)	Similar layout to above, two pages for all Service Users and Regions then by Device type	4
2.2.6 – Update Device Firmware	Single table broken down by Region for the whole month, not broken down daily.	1
2.2.7 – Update CH Firmware	Subject to getting the data for SRV 11.1 sent to CHF, single page for CHF1 and CHF2 of the business requirements document	1

Breakdown of agreed presentation of metrics		
Business requirement section	**Detail**	**Est. number of pages**
2.2.8 – Alerts Management	Simple graph showing all Alerts daily based on delivered within SLA. Broken down by Device type by region.	4
2.3 – End to End Service Availability	Five Availability measures; one page per measure	5
Total		**153 pages**

DCC solution for data representation

The DCC suggested utilising its own software solution for presenting the metrics to the Operations Group on an enduring basis. This would take an agile approach to the reporting and allow Parties to select further breakdowns of metrics where needed. This would be instead of requiring the DCC to present the highest level of granularity for every single metric, which would result in inefficiencies, and likely increase Application Support costs.

The DCC could not confirm the cost but a minimum viable product would be available at the same time as the report, with option to iteratively improve. Additional costs may come if new data requirements are added, or if there is a requirement to have access via a portal.

The Working Group supported this method and agreed it should be investigated further by the DCC.

Next steps

The following actions were recorded from the meeting:

- The DCC will produce a draft report for use from 1 April 2021 using the Working Groups recommended approach for presenting the metrics.

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