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## Change Request Form

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### Change Request details

Change Request details			
Change Request Title	<i>Introduction of Compressed Payloads into DIP Messages</i>		
Change Request Number	<i>CR030</i>		
Originating Advisory / Working Group	<i>DRWG</i>		
Risk/issue reference			
Change Raiser	<i>Rob Golding, MHHS Programme</i>	Date raised:	<i>27/07/23</i>

***For further guidance on how to complete this document please see the supporting Change Request Form Guidance for Programme Participants. The guidance will support raising a change and responding to a change request via Impact Assessment. The Change Raiser should consider sharing the draft Change Request Form with impacted programme parties, prior to submission to PMO. The guidance, as well as other key documents are referenced below and can be found via the MHHS website.***

Change Request to be read in conjunction with:
MHHS Change Request Form Guidance for Programme Participants
MHHS Change Control Approach
MHHS Governance Framework
Ofgem's MHHS Transition Timetable

## Part A – Description of proposed change

**Guidance** – This section should be completed by the Change Raiser when raising the Change Request.

### Part A – Description of proposed change

#### Issue statement:

Detailed analysis of some of the ECS reports, specifically REP003, has found that some of the reports can potentially grow to a very large size ~ 12MB. Within MHHS message design there is a notional upper limit for the size of messages which is 1MB, and hence these messages will exceed this constraint.

#### Description of change:

The proposal is to introduce a new message pattern within the DIP to include compressed payload where the message payload is 'compressed' and base64 bit encoded before it is written to the message and sent. The payload compression will be implemented via gzip.

The proposal is to add the compression to all ECS Reports using Pattern A. This introduces uniformity of design and future proofs the solution in the event of any further changes/additions to the ECS reports during or following the completion of the MHHS Programme.

For the avoidance of doubt, the following ESC Reports will be impacted:

- MHHS-REP-002
- MHHS-REP-002A
- MHHS-REP-003
- MHHS-REP-004
- MHHS-REP-006
- MHHS-REP-007
- MHHS-REP-008
- MHHS-REP-009

#### Justification for change:

Recent analysis of the ECS reports (REP003 - BM Unit Allocated Demand Volumes to Suppliers) - has worked out that some of the reports have the potential to be very large (>12MB) and hence potential ways of reducing this to a more manageable values have been investigated:

#### Problem

The REP003 report contains the following data:

Settlement Run	4 a day
Supplier	250
GSP Group	14
Supplier MPID	1
BM Units	1 to 10
Consumption Class ID	83

Settlement Date/Period	48
<p>The REP003 report is built on the premise that each report contains the data for 1 supplier for 1 GSP group, and then all the BMUS for that supplier. Sizing estimates for the reports are approximately 1.6MB per BMU. Some suppliers have multiple BMUs (upto 10)</p>	
<p><u>Proposal</u> <b>Compress the Payload</b> Messages currently comprise of two blocks – a CommonBlock and a CustomBlock. The proposal is that the Sender (ECS) compresses the report and base64 encodes the data into the CustomBlock. The recipient will know that a specific message flow is compressed, and hence will need to decompress the payload. The proposal is to use gzip for the compression.</p>	
<p><b>Consequences of no change:</b> The reports generated by ECS will cause operational issues with either the DIP and/or Market Participants due to the large size.</p>	
<p><b>Alternative options:</b> In the original DIP design a design pattern known as Secure Pattern ‘B’, which would have been used to transfer larger reports and messages over the DIP, was specified but never implemented. The design pattern described above is thought to be a lot simpler for both Market Participants, Helix &amp; Avande to develop rather than implementing Secure Pattern ‘B’ at this stage in the programme.</p>	
<p><b>Risks associated with potential change:</b> No discernible risks</p>	
<p><b>Stakeholders consulted on the potential change:</b> The proposals were introduced at the DRWG on 17/7/23 and had a favourable response. Both the Helix programme &amp; Avande have already been consulted on the design and are fully supportive of the proposals.</p>	
<p><b>Target date by which a decision is required:</b></p>	

**Part B – Initial Impact of proposed change**

**Guidance – This section should be completed by the Change Raiser before being submitted to the MHHS PMO.**

**Please document the benefits of the change and to delivery of the programme objectives**

What benefits does the change bring
<p>Reduces the size of message payload of the messages that contain the ECS reports as they move through the DIP from ECS to the targeted MPs. This will have the following benefits:</p> <ul style="list-style-type: none"> <li>Individual message size will be below the notional 1MB size limit for Pattern ‘A’ messages required for efficient DIP message exchange</li> <li>Additional benefit of reduced message sizes will reduce the overall operational costs of DIP. This is not considered to be a significant benefit, however worth highlighting.</li> </ul>

Programme Objective	Benefit to delivery of the programme objective
To deliver the Design Working Group’s Target Operating Model (TOM) covering the ‘Meter to Bank’ process for all Supplier Volume Allocation Settlement meters	Efficient delivery of ECS reports
To deliver services to support the revised Settlement Timetable in line with the Design Working Group’s recommendation	The delivery for timescales for the ‘Compressed payload’ design are shorter than the alternative design, namely Secure Pattern ‘B’. Current design not considered viable for go-live
To implement all related Code changes identified under Ofgem’s Significant Code Review (SCR)	n/a
To implement MHHS in accordance with the MHHS Implementation Timetable	The delivery for timescales for the ‘Compressed payload’ design are shorter than the alternative design, namely Secure Pattern ‘B’. Current design not considered viable for go-live
To deliver programme capabilities and outcomes to enable the realisation of benefits in compliance with Ofgem’s Full Business Case	The proposal provides technical efficiencies on the exchange of messages
To prove and provide a model for future such industry-led change programmes	Design supports longevity within the DIP design

**Guidance – Please document the known programme parties and programme deliverables that may be impacted by the proposed change**

Impacted areas	Impacted items
Impacted Parties	ECS (Helix), DIP (Avanade), Suppliers & LDSO.

Impacted Deliverables	E2E Solution Architecture document, MHHSP - ERI011B - ECS Reports – External, MMHS Interface definitions aka. swagger
Impacted Milestones	<Ofgem's MHHS Transition Timetable is linked above>

**Note** – Please refer to *MHHS DEL174 Change Request Guidance for Programme Participants* for information on how to score the initial assessment.

Initial assessment			
Necessity of change	1 - Critical Change	Expected lead time	1 - <5 working days
Rationale of change	Solution	Expected implementation window	2-Short
Expected change impact	Low		

**Guidance** – Please include a reference and link to any additional documentation which the change relates to.

Change Request to be read in conjunction with:	
Title	Reference

## Part C.1 – Summary of Impact Assessment

**Note** – This section will be completed initially by the Change Raiser and then by Programme Participants as part of the full Impact Assessment.

All Impact Assessment responses will be considered public and non-confidential unless otherwise marked. If there are any specific elements of the response (e.g. costs) that are confidential, please mark the specific sections as confidential rather than the response as a whole. The MHHS Programme will publish all Impact Assessment responses and redact any confidential information as noted.

**Guidance** – Programme Participants are required to:

- A. Respond with 'Agree', 'Disagree' or 'Abstain', deleting as appropriate. If the respondent agrees, they can provide additional evidence to further support the assessment. If the respondent disagrees or abstains, they should provide a detailed rationale as to why.
- B. Add any additional effects that have not already been identified. In doing so, they should provide as much detail as possible to allow a robust assessment to be made.
- C. Proceed to Part C.2 for Impact Assessment Recommendation response once completed.

Part C.1 – Summary of Impact Assessment (complete as appropriate)
<p><b><u>Effect on benefits</u></b></p> <p><i>Compressed ECS reports will mean that these messages passing through the DIP remain within the 1MB design threshold</i></p>
<p>&lt;Delete as appropriate&gt;: <b>Agree</b> <b>Disagree</b> <b>Abstain</b></p>
<p><i>Impact Assessment respondents to add supporting commentary to support their selection. Where possible, Impact Assessment respondents to identify and describe any further impacts.</i></p> <p><i>Impact Assessment respondents should consider and provide detail of any additional effect e.g. whether there will be an impact on when a benefit will be realised; who will realise the benefit; the extent to which the benefit will be realised.</i></p> <p><i>Where possible, contextual information should be included e.g. the benefit will be delayed by X weeks; the change means Y population will also realise the benefit.</i></p>
<p><b><u>Effect on consumers</u></b></p> <p><i>No direct impact to consumer, however, it will mean the programme costs are reduced as the proposal is thought to be the most cost efficient design for all Market Participants</i></p>
<p>&lt;Delete as appropriate&gt;: <b>Agree</b> <b>Disagree</b> <b>Abstain</b></p>
<p><i>Impact Assessment respondents to add supporting commentary to support their selection. Where possible, Impact Assessment respondents to identify and describe any further impacts.</i></p> <p><i>Impact Assessment respondents should consider and provide detail of any additional effect e.g. whether there will be an impact on service delivery to consumers; will there be a cost impact to consumers; will there be a choice impact to consumers?</i></p> <p><i>Where possible, contextual information should be included e.g. what is the scale of the effect? Will the effect be permanent?</i></p>
<p><b><u>Effect on schedule</u></b></p>

The change is fairly straightforward for organisations with mature development capabilities, the time CR timescales will have a greater impact.

<Delete as appropriate>: **Agree** **Disagree** **Abstain**

Impact Assessment respondents to add supporting commentary to support their selection. Where possible, Impact Assessment respondents to identify and describe any further impacts.

Impact Assessment respondents should consider and provide detail of any additional effect e.g. will the schedule/milestones be directly impacted; will the schedule/milestones be indirectly impacted.

Where possible, contextual information should be included e.g. the change will delay the project by X days; the change will require additional resource to complete (though detail resource in resource section); the delay can/cannot be recovered by condensing Y activity.

#### **Effect on costs**

Minor impact, alternative approaches would have greater costs and timescales

<Delete as appropriate>: **Agree** **Disagree** **Abstain**

Impact Assessment respondents to add supporting commentary to support their selection. Where possible, Impact Assessment respondents to identify and describe any further impacts.

Impact Assessment respondents should consider and provide detail of any additional effect e.g. will the change cause a loss of income; will the change cause additional cost; will the change cause a reprofiling of cost?

Where possible, contextual information should be included e.g. whether it is capital or operating expenditure that will be affected; what period costs will be affected in; what the rough order of magnitude of the cost impact will be and if organisation will be able to absorb it?

#### **Effect on resources**

Minor to none. MPs will already have deployed development teams to implement the wider changes required by the programme, this change should be easily picked up by those resources.

<Delete as appropriate>: **Agree** **Disagree** **Abstain**

Impact Assessment respondents to add supporting commentary to support their selection. Where possible, Impact Assessment respondents to identify and describe any further impacts.

Impact Assessment respondents should consider and provide detail of any additional effect e.g. will there be an impact on tools or equipment; will there be an impact on staff capacity; will there be an impact on staff skills or capability?

Where possible, contextual information should be included e.g. the change will require X additional staff for Y period of time; the change requires Z training or support.

#### **Effect on contract**

Minor to none. Development staff & support staff will require knowledge how to manage compressed payloads. Guidance by the programme will be provided.

<Delete as appropriate>: **Agree** **Disagree** **Abstain**

*Impact Assessment respondents to add supporting commentary to support their selection. Where possible, Impact Assessment respondents to identify and describe any further impacts.*

*Impact Assessment respondents should consider and provide detail of any additional effect e.g. whether there will be an impact on contracts with sub-contractors; whether there will be an impact on contracts with vendors; whether there will be an impact on contracts with regulators/ESO.*

*Where possible, contextual information should be included e.g. the changes will require new contracts to be created; the changes will variations to existing contracts; the changes will affect ability to meet contract requirements.*

**Risks**

*The risk of not undertaking the change is that ECS reports, under the current design, cannot be transmitted over the DIP.*

**<Delete as appropriate>: Agree Disagree Abstain**

*Impact Assessment respondents to add supporting commentary to support their selection. Where possible, Impact Assessment respondents to identify and describe any further impacts.*

*Impact Assessment respondents should consider and provide detail of any additional effect e.g. will existing risks be affected; will new risks be created?*

*Where possible, contextual information should be included e.g. the change will affect the likelihood of a risk occurring, the change will affect the impact the risk would have, the change will require additional controls and mitigation.*

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**Part C.2 – Impact Assessment Recommendation**

**Note** – This section must be completed initially by the Change Raiser and then by Programme Participants as part of the full Impact Assessment.

**Guidance** – The primary reporting metric of the Impact Assessment is the recommendation response. The consolidated response will be presented to the relevant governance group(s) and decision maker(s) with the totals for ‘Agree’, ‘Disagree’ or ‘Abstain’. As such, please ensure this section is completed before the form is returned to MHHS PMO. Provide detailed rationale and evidence in the commentary field.

<b>Part C.2 – Impact Assessment Recommendation (mandatory)</b>
<p><b><u>Recommendation</u></b></p> <p><i>Change Raiser to provide initial recommendation.</i></p> <p><b>It is recommended by the Change Raiser the change is approved.</b></p>
<p><b>&lt;Delete as appropriate&gt;: Agree Disagree Abstain</b></p>
<p><i>Impact Assessment respondents to add supporting commentary to support their selection.</i></p>

**Impact assessment done by:** <Name>

**Guidance:** *If you are a third party responding on behalf of another Programme Participant, please state this in your response.*



Impact assessment completed on behalf of: <Name>

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## Part D – Change approval and decision

**Guidance:** *The approvals section will be completed by the MHHS PMO once the Impact Assessment has been reviewed.*

Part D - Approvals	
<b>Decision authority level</b>	
<Based on the impact assessment, state who is required to make a decision concerning this change>	

**Guidance** - *This section will be completed by the MHHS PMO and Change Owner following the review of the impact assessment and decision reached by the SRO.*

Part D – Change decision			
Decision:		Date	
Approvers:			
Change Owner:			
Action:			
Changed Items	Pre-change version	Revised version	

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**Part E – Implementation completion**

**Guidance** - This section will be completed by the MHHS PMO at the end of the post-implementation process.

Part E – Implementation completion			
Comment		Date	

**Guidance** – The Closure Checklist in MHHS DEL175 Change Log must also be completed by MHHS PMO at this stage.

Checklist Completed	Completed by
Yes/No	

**Guidance** – This section will be completed by the MHHS PMO at the end of the post-implementation process and should be used to add any appropriate references of the change once it has been completed.

References		
Ref	Document number	Description