



MHHS Webinar: Introduction to the Data Integration Platform (DIP) Q&A

MHHS-DEL1086

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Change Record

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28/02/23	Alice Chudley	0.1	Initial Draft
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Reviewers

Reviewer	Role
PPC team	Comms & Engagement
Richard Gwatkin	DIP Delivery Manager
Smitha Pichrikat	Client Delivery Programme Manager
Claire Silk	Participant Management & Engagement Lead

1 Data Integration Platform (DIP) delivery approach

Q1. How will Avanade (the new DIP Service Provider (DIPSP)) be positioned with respect to the Systems Integration for interfacing with participants such as suppliers and networks?

The DIP's role is to deliver a solution with the ability for participants to connect to the DIP in line with the Code of Connection. From an integration standpoint it will be to ensure that the Programme team provides the necessary information to integrate with the DIP.

Q2. Is Avanade developing the DIP from bottom up, or are there existing solutions/components being deployed to base the DIP on?

The DIP is not being built from the ground up, but rather from a set of components and accelerators that Avanade already has in place.

Q3. To what extent is Avanade publicly updating its readiness to MHHS participants? Is there any insight into the assurance process that Avanade are subject to?

The DIP will be subject to Design, Planning & Technical assurance throughout the Programme. The DIP will be assured by the Programme Senior Responsible Owner (SRO) team as well as the Lead Delivery Partner (LDP) team as part of the participant assurance activity to ensure readiness. The DIP SP is a Core Capability Provider and will be treated in the same manner as other Core Capability Providers from a readiness perspective. Relevant updates to participants will be via the usual Programme channels including the Programme's weekly newsletter, The Clock.

Q4. Is there full alignment between the DIP Simulator and the emerging DIP Design?

The DIP Service Provider and the DIP Simulator are both working from the same interface definitions and requirements documentation as well as direct engagement between the two teams to ensure alignment.

Q5. Are you planning a 'Big Bang' launch for the DIP, or will the DIP launch be phased (and have an impact on the migration schedule)?

The DIP will be ready from Pre-Integration Testing (PIT) onwards, and the DIPSP will follow migration and go-live activities as set out by the Programme.

Q6. Has Avanade started defining the Public Key Infrastructure (PKI) solution and engaged with any Certificate Authorities (CAs) at this time to define security requirements?

Avanade will work with GlobalSign for the PKI Certificate. A series of sessions are planned for March 2023 to get the additional detail needed for the input of the design.

2 DIP Support

Q1 How do participants integrating with the DIP get technical support from a DIP perspective throughout build?

The DIP team has the technical expertise to support if specific points need to be addressed.

Participants should continue to engage with the Programme through the existing channels. Please raise questions by emailing the Programme Party Coordinator (PPC) team at PPC@mhhsprogramme.co.uk. The PPC team will triage any DIP-related queries and the Avanade team are available to support any technical queries.

Participants can also refer to relevant artefacts that will be created to support such queries, such as the Code of Connection documentation. The relevant documentation will be published on the [DIP page](#) of the Collaboration Base for participants to access. This page is under 'Programme Information' in the navigation bar of the Collaboration Base. If you are struggling to access the Collaboration Base, please email the PPC Team.

Q2 How are Avanade expecting to support DIP-connected parties to ensure timely Pre-Integration Testing (PIT) and Qualification testing is achieved?

Avanade is committed to deliver a DIP that meets the non-functional and functional requirements within the Programme timeline. Avanade and the Programme will support participants for their onboarding and testing requirements by providing all the relevant information as we approach each testing phase.

The Code of Connection document will be published alongside further supporting materials, to inform participants of how to connect to the DIP. For clarity, the initial Code of Connections document was developed last year in 2022, and is c.80% complete. This document was taken to the Security & Design Working Group (SDWG) on 27 July 2022 for initial review.

The remaining c.20% of the document is dependent on elements of the DIP design, and the team are currently going through this design process. We anticipate that this document will be made available to participants by the end of March – early April 2023. For any queries relating to the DIP, participants are encouraged to email the Programme Party Coordinator (PPC) Team at PPC@mhhsprogramme.co.uk.

3 DIP Design

Q1 Will there be a web-based User Interface (UI) to view the data per participant, as processed by the DIP?

Yes, there is a requirement to make data processed by the DIP available to view by the individual market participants. The design of the DIP User Interface is currently being progressed, and screens are being designed and developed that will allow participants to view messages that are sent and received.

Q2 The DIP is a messaging integration platform. Would a centralised Smart Data Service (SDS) solution, close to the source of the consumption data from the Data Communications Company (DCC) remove complexity and cost?

The MHHS Target Operating Model (TOM) mandates differentiated SDS entities that are analagous to existing agent roles in industry today. A centralised SDS would be a fundamentally different commercial construct to that defined in the OFGEM approved TOM which the programme has been directed to implement. Whilst systemic efficiencies could be achieved it would come at the cost of the commercial differentiation that multiple SDS offerings would bring.

Please send any queries regarding the MHHS TOM to the MHHS Design team at design@mhhsprogramme.co.uk.

Q3 Data Storage is a significant consideration. Could the DIP architecture include data storage, allowing replay of messages on request to avoid storage on receipt?

Facilities for message replay are being developed within the DIP, however, these do not replace the requirements on participants to safely secure and retain data.

Q4 How do you plan to monitor the participant systems from the DIP? Can your solution monitor the health of Webhook Endpoints?

Capabilities are being built into the DIP that will monitor market participant behaviour, including both ingress and egress of messages.

Q5 When can we expect a high-level design of the Azure solution?

The Programme and the DIP Service Provider are prioritising providing information that is relevant to the connectivity of the DIP.

4 DIP Interfaces and Messages

Q1 What will the file structure of the messages that the DIP processes be?

The file structure of the messages that the DIP processes are JavaScript Object Notation (JSON).

Q2 Will the DIP only process Design Artefact flagged interfaces and flows remain on the Data Transfer Network (DTN)?

The MHHS Design is reliant on both DIP and DTN message flows.

Q3 Can you advise what the ongoing costs are to us as a Service for sending and receiving the IF/PUB messages. How is the cost structured and when will this information be available?

This topic is currently under discussion between the Programme team and Elexon. Further detail will be shared with participants as the ongoing costs are confirmed.

Q4 Can you advise what the ongoing costs are to us as a Service for sending and receiving the IF/PUB messages. How is the cost structured and when will this information be available?

This topic is currently under discussion between the Programme team and Elexon. Further detail will be shared with participants as the ongoing costs are confirmed.

Elexon are required to consult with industry re the enduring governance and funding approach of DIP. This is being managed through the Issue 101 Working Group. The 101 Working Group has held Funding working groups. Link at the footer of this response.

Issue 101's recommendation will be that all DIP funding will be met by Suppliers as per Ofgem's direction in their April 2022 decision letter – the mechanics are being finalised but will consist of a fixed cost, with the remainder of fees being met by funding share based on the number of MPANs/Supplier.

This outcome is subject to consultation prior to Ofgem making their final determination and by them giving direction to amend the BSC in the shape of an Authority Led SCR Modification.

The meeting documents for Issue 101 Working Group are on the [BSC Issue 101 webpage](#), Funding is covered under the fourth and fifth Workgroup meetings. suppliers and non-suppliers are members of the Issue Group and were present when we discussed funding.

Q5 Will messages be encrypted, or will they only be digitally signed?

The DIP solution will use Mutual Transport Layer Security (mTLS). Participants will be required to encrypt messages using their client certificate.

Q6 Reference was made to “Flows” and “Messages”. Will the DIP only process events/messages flagged as INF_ interfaces in the Design Artefacts?

Yes, the DIP will only process events and messages flagged as INF_ Interfaces in the Design Artefacts.

Q7 Is there an expectation that the interface specifications will be baselined before PIT entry?

The interface specifications have been re-baselined at the Design Advisory Group (DAG) on 16 February 2023. Any further changes that may transpire will be subject to standard formal change control, and socialised and agreed with participants through the appropriate Working Groups.

Q8 Where a data service is limited on what it can send, for example no more than half of its portfolio over a six-hour period, will a “429” response be received?

Response handling for specific scenarios will be defined as part of the DIP design, which is progressing.

5 Design Change Control

Q1 Will a Change Request be raised for the changes to the interface specs?

As mentioned during the DIP webinar, any changes that are proposed which may impact on participants will be subject to standard formal change control, and socialised and agreed with participants through the appropriate Working Groups.

All Change Requests will go through the standard Design Change Control process in place. Please visit the [Design Change Control page](#) of the MHHS website for more information. Here you can find an overview of the Design Change Control Process which explains the process and how Design Issues may arise.

Q2 Do Avande expect to need to make changes to the baselined interface specifications as this could result in re-work for Participants?

Following the DIP webinar on 28 February 2023, to reassure participants, we are providing further clarification in response to the question as to whether the DIP Service Provider expects to make changes to the baselined interface specifications.

Whilst we anticipate the refinement and evolution of technical interfaces (connecting to interfaces etc.), the DIP Service Provider throughout the contracting process has understood the data structure requirements and are working to the baselined Design. The DIP Service Provider does not envisage changing the data structures or changing anything that could impact Business processes.

As mentioned during the webinar, any changes that are proposed which may impact on participants will be subject to standard formal change control, and socialised and agreed with participants through the appropriate Working Groups.

Q3 We've said that the DIP simulator and DIP build are aligned, however, if the interface specifications are changing then is this necessarily true?

The DIP simulator and the DIP are both working from the same set of requirements. If there are changes to the interfaces, the DIP Simulator and DIP build will both change in line with the new requirements.

All Change Requests will go through the standard Design Change Control process in place. Please visit the [Design Change Control page](#) of the MHHS website for more information.

6 Code of Connections

Q1 Will there be any minimum set of connectivity requirements for participants to connect to the DIP in Azure DevOps?

There is a Code of Connections document which is in development (see below). This document notes that there is the potential for regulating interfaces, but this is still work in progress.

Q2 What will the security mechanism be for the DIP?

The Code of Connections document will provide participants with all the necessary elements and information of how to secure their connections.

Q3 When will the Code of Connection be published?

The Code of Connections document was developed last year in 2022 and is c.80% complete. This document was taken to the Security & Design Working Group (SDWG) on 27 July 2022 for initial review. The remaining c.20% of the document is dependent on elements of the DIP design, and the team are currently going through this design process. We anticipate that this document will be made available to participants by the end of March – early April 2023.

If you would like to join the SDWG to contribute to this Working Group, please email PMO@mhhsprogramme.co.uk.

Q4 Is information available that describes how we will connect to the test environments, for example by public internet or secured connection?

As we progress towards each testing phase, the Programme will show participants how to access different test environments and provide access support where necessary.

The relevant communications will come out through the Programme and the PPC Team will be our point of contact for communication to participants. The Programme will publish the Code of Connections document within the next few weeks which tells participants how to connect to the DIP, both for the production and the non-production environments.

For any queries relating to the DIP, participants are encouraged to email the Programme Party Coordinator (PPC) Team at PPC@mhhsprogramme.co.uk.

7 Non-Functional Requirements (NFRs)

Q1 What are your views on Non-Functional Requirements (NFRs) and when will the platform's volume and latency capabilities be published?

Avanade collated some estimates on volumes in 2022 and have the NFR's that have been produced via the MHHS Programme that will be utilised. These need to be reviewed when the capacity is there. Once Avanade uses the Systems Integration Testing (SIT) environment, they will get a better idea of what the volumes are.

Q2 Can Avanade share the NFRs with participants please? Detail on message volumes, size, and changing from 'D' flow 'equivalents' would be appreciated.

These requirements are available on the [Data Integration Platform \(DIP\) page](#) of the Collaboration Base. This page is under 'Programme Information' in the navigation bar of the Collaboration Base.

If you can't access the Collaboration Base, please email the Programme Party Coordinator (PPC) Team at PPC@mhhsprogramme.co.uk

8 Miscellaneous

Q1 What self-serve capabilities will be offered to participants?

The Programme will provide a DIP onboarding process which is currently being established. This onboarding process will be made available as a self-service capability through a DIP portal. Further details will be provided as the DIP design progresses.

Q2 Has Avanade got any relevant Client Case Studies that reference similar architecture to DIP please?

Avanade has a depth of experience delivering digital infrastructure solutions to organisations within the energy industry. A full range of Client Stories is available on the Avanade website: <https://www.avanade.com/en-gb/clients>.

Q3 On the Target Operating Model (TOM) it looks as though registration services will be picked up by the Distribution Network Operators. Is this correct, and if so, are there any plans for charges to cover this?

This is currently under discussion within the Programme and we will look to update this Q&A document and the wider participant community when a decision has been made.