ELEXON

MHHS AWG Consultation Response Summary

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Summary

After careful review of the 21 responses to the AWG Consultation for a MHHS Reference Architecture the AWG find the industry broadly in support of the proposals. The AWG are not proposing any changes to the recommendation.

Six of the responses were written and did not directly respond to the questions being asked. Three were positive toward the proposal, two said they would need more time to consult, and one contained general comments.

The AWG discussed the responses and provided the following comments to Ofgem and the SRO for consideration as the programme progresses. Additionally, some responses detailed specific areas of concern that were outside of the conceptual-level scope of the AWG's work. These responses provide a welcome insight into the detail that must be considered by the programme and should be considered carefully and with the parties' full engagement to minimise costs and ensure successful outcomes.

Response Themes and Discussion

What follows is an analysis of the responses, key themes and a summary of the AWG's discussion held in the AWG17 meeting on 1st July 2021.

Question 1

Do you agree that the business and non-functional scope as set out is consistent with Ofgem's business case, target operating model development principles, the agreed TOM and subject areas considered by the CCDG?

Agree: 12, Disagree: 2, No Comment:2, (written responses: 6)

Key themes

- Broad Agreement.
- Further detail is needed.
- Should consider the impact to non-MHHS processes.
- Overall scope should be wider than settlement e.g., to include move to smart grid.

AWG Response

The group recognise the need for the detailed processes to be defined, however this needs to be balanced with where the MHHS programme is on the milestones. As presented in the recommendation paper, at this stage the group has sufficient detail to recommend an architecture style and is not at the detailed design stage yet.

The AWG had noted there may be impacts to non-MHHS processes and recommend this is considered in planning especially where the MHHS processes directly impact or interact with non-MHHS processes. The other case, which is more the responsibility of individual participants internal architecture and systems, is where one system performs different processes. That case will clearly impact existing monolithic architectures more than modular ones.

Question 2

Do you agree that data integration is the appropriate architecture style to realise the MHHS TOM requirements rather than a more process centric architecture such as process automation or centralised business rules processing? If not, why not and what would be the most appropriate architecture style?

Agree: 12, Disagree: 3, No Comment:2, (written responses: 5)

Key Themes

- Choices should be open and flexible.
- Without migrating away from the DTN there is added complexity.
- Incorporating a new architecture style into existing systems and processes should be reviewed.

AWG Response

The AWG agreed and noted that the technical design should use, as much as possible, open or (technology) industry standards to minimise bespoke integration patterns. This should enable a wider use of technology and available expertise to be sourced giving more options to solution designs.

The AWG noted concerns over a new integration service and were minded of such during earlier discussions. The position is that MHHS represents a major change and represents a suitable point to modernise the integration architecture.

The AWG had previously discussed potential impact to non-consumption data processes and recommend the impact of a new architecture style and integration service be assessed against the benefits of such where it impacts existing participants systems and non-MHHS processes.

Question 3

Do you agree that Event Driven Architecture is the most suitable data integration style to realise MHHS and should be taken forward to the next stage of design? If not, why not and what would be the most suitable data integration style to realise MHHS.

Agree: 11, Disagree: 2, No Comment: 1, (written responses: 5)

Key Themes

- Different architecture styles add complexity to existing systems.
- Cost could be minimised by routing over existing systems.
- EDA is a sensible modern choice but near real-time is not needed for MHHS.

AWG Response

To be clear, the AWG are recommending a reference architecture which is at the conceptual level. The specifics are yet to be designed both from a business process and technical perspective. The resulting specific complexity change is therefore somewhat unknown at this stage.

A few respondents noted that EDA supports near real-time communications and that this is not a requirement of MHHS. The AWG acknowledge this and agree with most respondents who also stated that EDA is the most suitable modern architecture style to use, even if the full benefits are not yet realised. The AWG do not feel there is a more cost-effective architecture that does not support near real-time. The AWG also noted that the deciding factor on the near real-time nature is not the technology architecture but the business process architecture i.e., how the processes are designed and the SLA's that are mandated.

The AWG noted that while the MHHS processes may support real-world eventing in near real-time, other dependant architecture (e.g., the DCC network) may not, hence the end-to-end processes would not be fully event driven until all related systems are updated. Another consideration is that as some processes remain batch driven; they will create peaks in load on the new integration service. The AWG accept this but argue the volumes involved are far below the capability limits of modern technology and that platforms can auto-scale to support peak load and scale-back to reduce operational cost.

The AWG believe that EDA will be an enabler for future opportunities and innovation as well as being the most suitable architecture choice to support current MHHS processes.

Question 4

Do you agree that a new data integration service is required to satisfy the data volume and frequency requirements mandated by the MHHS TOM? If not, why not?

Agree: 11, Disagree: 2, No Comment: 7, (written response: 5)

Key Themes

- Broad agreement.
- Could existing arrangements be made to work?
- In providing a new service that upgrades an existing one, but not removing the existing service, overall industry cost for data integration may go up.

AWG Response

The AWG maintain the existing arrangements, as they stand, will not support the MHHS requirements. The ask on the group was to propose the target architecture "for the next 20 years" and as such the existing architecture style would not be chosen.

The AWG noted that the availability of an EDA integration service should simplify business process design for future new uses and be easier to innovate over e.g., in a data-rich device-connected landscape.

The AWG do recommend the programme clearly define the use of adapters as the experience with CSS was not as clear as it could have been e.g., who provides them, what functionality could be provided, where is the cost incurred.

Question 5

Do you see any other benefits to industry of having an EDA for data integration available?

Agree: 10, Disagree: 3, No Comment: 2, (written response: 5)

Key Themes

- EDA is flexible and extendable to future industry changes.
- Could assist other use cases such as faster switching, P2P trading and "behind the meter".
- Could streamline existing processes.
- Visibility.

AWG Response

The AWG noted these points.

On the point of visibility, the AWG stressed that during process design, any events which are deemed to be of market-wide significance should be sent to the integration service, even if they are consumed primarily by the sending organisation. This would ensure any new use cases do not miss data.

Question 6

Do you have any other comments?

Key Themes

- There was insufficient time and detail provided to properly respond to the consultation.
- Concerns on resource needed for other industry work i.e., faster switching.

AWG Response

The group noted MHHS may overlap with the resource required for other industry work and recommend this is accounted for in planning.

While more time could have been given a balance was made against the need to move forward, especially given this is a conceptual level recommendation. The AWG recommend the programme ensure all affected parties are properly represented in future phases.