Data Standards Body

Technical Working Group

Decision Proposal 192 – AEMO Exposed End Points

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Context

A peer-to-peer model has been adopted for the energy sector under the Consumer Data Right (CDR) regime. Under this model Accredited Data Recipients (ADRs) will interact with electricity retailers to seek authorisation for data sharing and to initiate data sharing requests.

As AEMO is also a designated data holder for the energy sector but will not have direct interaction with ADRs, the retailers will need to contact AEMO to obtain requested data for which AEMO is the designated data holder.

A consultation on the information security profile for this interaction has already been raised at the following location:
https://github.com/ConsumerDataStandardsAustralia/standards/issues/191

Once the information security profile, including the mechanisms for how a retailer will connect to AEMO, is defined there is still a need to define the actual end points and payloads that AEMO will expose. That is the purpose of this proposal.

Decision To Be Made

Define the form of the API end points and payloads that AEMO will expose to retailers so that they can fulfil consumer data requests for NMI standing data, distributed energy resources data and energy usage data.

Identified Options

Only a single recommended option is presented in this proposal. This recommendation has been defined to minimise retailer and AEMO develop costs and to ensure simplicity of ongoing standards maintenance and implementation.

Feedback on the suitability of this recommended approach, or more appropriate alternatives would be welcome as feedback to this proposal.

Current Recommendation

The recommended approach is that AEMO will expose the following end points, to retailers only, as defined in the CDR standards:

- **Get Service Points**
  Obtain high level details for a list of service points
- **Get Service Point Detail**
  Obtain the detail for a specific service point
- **Get Usage For Service Point**
  Obtain a list of electricity usage data from a particular service point
- **Get Usage For Specific Service Points**
  Obtain the electricity usage data for a specific set of service points
- **Get DER For Service Point**
  Obtain a list of DER data for a particular service point
- **Get DER For Specific Service Points**
  Obtain DER data for a specific set of service points

These end points will be implemented exactly as they would be by retailers except as defined in the following subsections.

Variations to base standards

Variations from the normal definition of the end points will be required for specific situations. These variations arise from the need to avoid the need for AEMO to know, or be provided, any specific customer data or context.

The following variations will apply:
- The *x-fapi-auth-date* header must not be passed to AEMO and AEMO must not require this header
- The *x-fapi-customer-ip-address* header must not be passed to AEMO and AEMO must not require this header
- The *x-cds-client-headers* header must not be passed to AEMO and AEMO must not require this header
- A new header named *x-cds-arrangement* must be passed to AEMO for every invocation. This header should contain the arrangement ID for the consent that the request is being made under and will be used for tracing and audit purposes. This field must be populated but AEMO will not receive the retailer, or seek to validate the consent associated with, the arrangement.
- All occurrences of the servicePointId field, whether in a request, a response, or as a query parameter should be populated with the NMI instead of a service point ID using the ID permanence rules. AEMO will not be able to translate between a NMI and servicePointId as they will not be aware of the recipient or the subject associated with the consent. As a result, the retailer will be expected to translate the NMI provided in the servicePointId field into an ID conformant with the ID permanence rules.
- Fields in the *links* object for all responses will need to be translated by the retailer into values that are valid for an ADR to be able to call back to the retailer as the data holder.
- For the Get Service Points end point only:

- o This end point will be changed from a GET to a POST and will have the same request payload as the Get Usage For Specific Service Points end point. This change is to accommodate the fact that AEMO will not know which NMI's apply to the consumer requesting the data and must be given the specific details of the NMIs to be shared

Additional notes

The following notes are provided for clarity:
- General headers should be provided as if the request were coming from the retailer and not propagated from the call made by the ADR.
- The *x-fapi-interaction-id* header must be propagated from the ADR call to AEMO to allow for end to end tracing if needed.
- End points that require knowledge of the NMIs that belong to the consumer have been excluded from the AEMO end point set. This includes **Get Bulk Usage** and **Get Bulk DER**. When a retailer is required to respond to these end points they should call the equivalent end point for specific service points and provide the specific list of NMIs to AEMO.
- Some retailers may interact with AEMO using multiple participant IDs. For these retailers it is possible that a single request from a consumer covering multiple NMIs would require multiple calls to AEMO if the NMIs were associated with multiple participant IDs owned by the retailer. In this scenario the retailer would be expected to call AEMO multiple times and aggregate the results before responding to the ADR.
- AEMO is unable to determine how long the current customer has had control of any specific NMI but they are able to determine how long the retailer (or more specifically, participant ID) has had control of each NMI. If a request for usage data spans a time period when the retailer was not in control of the NMI then AEMO will not respond with an error but will not share data outside the period of control of the retailer. It remains an obligation of the retailer to ensure that the data requested and then shared with the ADR is not outside the bounds of control of the specific customer.[1]

Implementation Considerations

It is believed that the recommendation presented will minimise implementation costs for participants in aggregate. By aligning the AEMO APIs as much as possible with those exposed by the retailers each retailer's implementation will be minimised. The retailers will, in effect, be able to operate as a proxy of the data provided by AEMO.

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[1] The statements relating to time ranges may change if AEMO processes and data structures change in the future to allow for more detailed understanding of NMI ownership. If that occurs a consultation will be conducted to align the CDR standards.