Data Standards Body

Technical Working Group

Decision 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.

The security profile for this interaction is being determined under Decision Proposal 191.

This decision describes the mechanisms for how a retailer will connect to AEMO. Specifically, the form that the endpoints will take that AEMO will expose to retailers.

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.

Feedback Provided

The original proposal and the associated feedback can be found at: https://github.com/ConsumerDataStandardsAustralia/open-banking/issues/192

This proposal recommended a specific approach for the endpoints that AEMO would expose to retailers. This recommendation sought to align the endpoints exposed by AEMO, as closely as possible, to the endpoints that the retailers would subsequently expose to ADRs.

The intention of this recommendation was to minimise complexity and implementation effort for all parties involved.

The following is a summary of the feedback provided in response to this consultation:

- Requests for clarification of the intent of the approach and how it should be interpreted. This feedback was responded to during the consultation and has been accommodated in the final decision
- A request that the technical specifications (ie. OpenAPI Specification) for the proposed APIs be published. This will be done as a subsequent activity for this decision being finalised
- General support the approach recommended
- Detailed feedback on low level issues related to the proposal. This feedback has been accommodated as much as possible
- Some specific feedback around the modification of the ADR facing endpoints to minimise retailer build was received. This was considered but was not adopted as it would make the endpoints in this specific circumstance inconsistent with other, similar, endpoints across the standards as a whole

Decision For Approval

The decision for the endpoints to be exposed by AEMO to retailers is closely aligned to the original proposal but has been modified in response to feedback.

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 term *secondary* will be added to the URI path for these the AEMO versions of the endpoints to create a clear separation between the secondary data holder version of the endpoints and the primary data holder version of the endpoints. For instance the primary endpoint:
  GET <base>/energy/electricity/servicepoints
  would become the secondary endpoint:
  GET <base>/secondary/energy/electricity/servicepoints
  The *secondary* namespace will be reserved for endpoints implemented in the "secondary data holder" pattern.
- 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:
  - 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. If not supplied by the ADR, the retailer must create a unique value for this header before calling AEMO
- 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.