

Data Standards Body

Technical Working Group

Summary of Feedback on Draft Standards – Feedback Cycle 1

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Context

On the 2nd of November the first full draft of the CDR standards was published and a three-week feedback cycle was initiated. This feedback cycle was officially closed on Friday 23rd of November but allowance was made for additional feedback from stakeholders that requested extension until Tuesday the 27th of November. On-going feedback is encouraged and will be considered for inclusion in future updates of the standards.

This document summarises the issues raised in feedback and includes recommended responses to the issues arising from the feedback.

Feedback can be found at:

<https://github.com/ConsumerDataStandardsAustralia/standards/issues/39>

Number Of Contributors

There was extensive feedback provided from a series of individuals and also from representatives of organisations. It is likely that some of the individual contributors are also representatives of organisations but where this has not been explicitly stated it has not been assumed.

Feedback was received from 14 individual contributors and 21 identified organisations.

The list of identified organisations providing feedback is as follows:

- 86400
- Amex Australia
- ANZ
- BPay
- CBA
- Data Action
- Xero
- Finder
- Industrie&Co
- Macquarie Bank
- NAB
- Secure Logic
- Ultradata
- CommsAlliance
- AGL
- Law Council of Australia
- Visa
- Illion
- SunTec
- ARCA

General Observations

After reviewing all feedback the following general observations have been made on the feedback provided:

- **Comprehensive Feedback**
The quantity and detail of the feedback received were both extensive. The majority of the feedback could be accepted and incorporated into the standards without disruption to the draft standards. There was also feedback that was policy or security related that has been extracted into separate sections to facilitate conveying this information to other streams. Only a small number of key issues remain to be resolved. These issues are articulated separately in the next section of this document.
- **New Contributors**
There are a number of new contributors that have provided feedback on issues that have previously been canvassed and responded to. This is an indication that the standards are gaining a wider audience and it is natural for new participants in the community to respond without reading all previous feedback (considering the size of this corpus). Feedback of this nature has not been actioned unless it contains a new perspective. It is worth noting that this kind of feedback is likely to become more regular over time. As a consequence we are exploring options to make the history of decisions and discussions underpinning the standards more accessible and linkable.
- **Repeated Feedback**
There is a significant amount of restated feedback that has been provided previously. This is usually in the context of feedback that was not fully incorporated into the standards by conscious choice.

Key Issues Outstanding

The following are the key issues that are outstanding. These will be a specific focus of the next rounds of feedback.

- **Product Reference** – A significant amount of feedback, much of it conflicting, was provided in regard to the specifics of the product reference payload. No changes will be incorporated in this round of changes and this payload will be an area of active focus in the next round of feedback.
- **Detailed Error Responses** – The inclusion of more detailed error responses is incorporated in the standards but only a few actual errors have been defined. This is an area of active consideration.
- **Non-functional Requirements** – The development of a draft proposal for non-functional requirements for the regime is underway but will not be published during the next round of feedback.
- **Administration End Points** – The need to define administration end points for reporting and potentially for revocation of consent is needed but the process of definition is dependent on clarity on the information security profile and the directory.
- **Alignment of NPP Data** – The information in transaction detail that is derived from NPP transactions needs to be aligned with actual NPP terminology and payloads.
- **Addition Of Card Art Fields** – The community will be asked for comment on the inclusion of card art fields for credit card accounts.

Feedback Summary

As the feedback applied to the standards as a whole each contribution covered a wide variety of topics and issues. To facilitate response the feedback has therefore been categorised into different sections. These sections are as follows:

- **Policy Related Feedback** – This is feedback related to policy issues that cannot be addressed in the standards or is not the remit of the Data Standards Body. This feedback will be passed on to the ACCC for consideration.
- **Security Related Feedback** – This feedback is specifically related to the security profile and will be passed on to the InfoSec working group for consideration.
- **Requests For Clarifications** – Some of the feedback was actually requests for clarification of the best way to interpret a concept, field or payload. This section provides responses to these requests for clarification.
- **Strategic Standards Feedback** – This feedback was directly related to the technical standards but has strategic or wide reaching impact.
- **Technical Standards Feedback** – This feedback was related to specific fields, payloads or rules in the standards. In this section feedback is summarised and a recommended response is provided.
- **Minor Amendments** – This section outlines minor amendments to payloads or descriptions of fields that are accepted and will be actioned as suggested.
- **Documentation Errors** – This section outlines feedback on areas where the standards documentation is not aligned to the decision proposals. These are instances of documentation errors and will be rectified.

Policy Related Feedback

The following feedback is policy related and will be passed on to the ACCC for consideration:

Topic	Feedback Summary
Scheduled Payments	A number of contributors recommended that scheduled payments be included as part of the scope for the regime. The primary driver for the inclusion of scheduled payments was to facilitate account migration from one financial service provider to another. It was noted that scheduled payments are as important to account migration as the inclusion of direct debit authorisations.
Closed Accounts	A number of banks provided feedback that closed accounts should not be included using the justification that the exclusion of previous customers should imply the exclusion of closed accounts. This is feedback that has previously been provided by a number of banks. A variety of FinTechs have indicated that there is a strong need for closed accounts to be included so that transactions on those accounts can be accessed under the regime. This is a topic that has previously been raised and addressed with the outcome that closed accounts are expected to be in scope for the regime.
Direct Debits	A number of banks and banking platform providers have provided feedback that it would be difficult to provide this data as direct debit authorisations are not held by the financial institutions in Australia.

Sensitive Data	<p>There was consistent feedback from the banks, which is also consistent with previous feedback from the same group, that sensitive data such as customer information, transaction detail and payees should not be included in the regime. The customer payload was specifically called out as a payload of concern in this regard.</p> <p>There was, however, counter feedback from non-bank stakeholders that this data was important for services that will add value to customers and that the extent of the data included should be expanded.</p> <p>It should be noted that the data included for transfer to data recipients in the CDR regime is commensurate with the data included in the UK open banking standards.</p>
Data Quality and Data Entry	<p>Concern was raised that data quality issues arising from the customer entering data incorrectly could be interpreted as an issue for the data provider. The example was given of a customer transposing fields, misspelling names or confusing name types for organisations.</p>
Consent	<p>Questions were raised in feedback regarding whether there are plans for access to be provided to consent data held by the data provider as a data set in its own right.</p>
Specific Account Consent	<p>Feedback was provided that the standards do not currently address whether customers should be given the option of specifying individual accounts to which access should be given during the authorisation process.</p>
Modification Of Consent	<p>Questions were raised as to whether there would be support for the modification of existing authorisations including the possibility of re-authorisation.</p>
Consent Removal	<p>Feedback asked what plans there are for data providers to notify data consumers that a customer has rescinded an authorisation. Similarly, are there plans for notification of data providers when accreditation of a data consumer has been revoked.</p>
4th Party Risk	<p>COBA sought feedback about how the information security profile will address the issue of 4th party risk governance. Specifically this means the management of risks of shared data being on-shared with non-accredited data recipients.</p> <p>In this regard, COBA specifically referred to <i>Prudential Standard CPS 234 Information Security (CPS 234)</i>, the new cross-industry prudential standard for the management of information security that sets out minimum requirements for APRA-regulated entities to manage information security risks. CPS 234 imposes requirements to classify and manage risks associated with all information assets managed by third parties or downstream providers – this represents a departure from the previous ‘risk-based’ approach.</p>

Security Related Feedback

The following feedback is security related and will be passed on to the InfoSec work stream and the Customer Experience work stream for consideration:

Topic	Feedback Summary
Maturity	A number of stakeholders raised concerns around the relative maturity of the information security profile.
Scopes	Various contributors provided feedback recommending that authorisation scopes should be changed for various data sets. It is expected that the granularity of authorisation scopes will be validated via customer research conducted by the CX work stream.
HTTP Response Headers	Feedback was provided concerning specific security related HTTP headers for response payloads. The following link to OWASP was included in the feedback for reference: https://www.owasp.org/index.php/OWASP_Secure-Headers_Project-tab=Headers
MTLS	Conflicting feedback was provided both in favour of and against the use of MTLS.
Account Matching	One contributor sought clarity around customer matching. Specifically the feedback was: <i>"We seek clarity from Data61 on how data holders bind user ID's to other party's user ID's through this process. For example, it is unclear how an energy retailer could match their customer (i.e. John Smith) to a financial institution customer (John Smith)."</i>

Requests For Clarifications

This section outlines the requests for clarification within the feedback along with the clarification requested:

Topic	Feedback Summary	Proposed Response
Scopes	<i>"Please confirm that all scopes are explicit. A Data Recipient wanting to use an endpoint with a resource identifier (e.g. Get Account Detail) would need to explicitly include the scope for the endpoint that provides a list of resource identifiers. There are no implicit relationships between scopes - along the lines of 'inheritance' or 'hierarchies'"</i>	While it may not conceptually make sense to request some scopes if others are not also requested it is expected that all required scopes must be explicitly requested. There is currently no expectation of any form of inheritance within the authorisation scopes.
IDs	<i>"Please confirm that IDs are unique for a Data Recipient/Customer/Subject (e.g. Account, Transaction) combination"</i>	Yes. This aligned to the principles around ID permanence documented explicitly in the standards. The exception to this is the IDs for products. As products are accessed without the need for authentication there is no obligation for these IDs to be unique per data consumer/customer pair.
Mixing Consents	<i>"ANZ accounts can be related to (including owned by) multiple legal entities (individuals and/or organisations) under the single digital identity (logon). Given the customer and consent structure the expectation is that we cannot mix customers under a single consent. Please confirm that a consent is per legal entity."</i>	It is assumed that consent is granted by an individual acting with appropriate delegations either as an individual or agent for a specific entity. The standards currently assume that only one customer record is applicable in the context of an authorisation.
Date Filtering	<i>"With regards to end-time the standard states "If absent defaults to start-time plus 100 day". Please confirm that this is 100 calendar days, not business days."</i>	Yes. Calendar days is applicable.
Bulk Transaction Sorting	<i>"Sort order for the bulk endpoints is not clear in the document. ANZ is making the assumption that sorting will be done at Account level first then transactions will be ordered under each account as per "get transactions for account endpoint" with the most recent transaction first. Please confirm if this assumption is incorrect."</i>	This is an incorrect assumption. For transactions the decision proposal addressed that ordering would be by transaction according to transaction date without grouping by account.

Empty Transaction Response	<i>“There may be a scenario that the customer does not have any transactions against a particular account, ANZ is expecting to respond with a 200 OK and include an empty transaction array. Please confirm this is in line with the standards?”</i>	Yes. That is correct.
Brand	<i>“Please clarify the difference between brand and brand name? An example would be helpful.”</i>	The brand field holds a consistent label to be used programmatically. The brandName field is an optional display text that can be displayed to a customer. If the brandName field is not present then it is assumed the brand field is acceptable for on screen display. For example: brand: “ABANK”, brandName: “ABank: A bank for you”
Available Balance	<i>“Can you please confirm the definition of available balance? Most retail customers have a pretty clear definition but some customers (i.e organisations and institutions) can access a proportion of uncleared funds, is this expected to be represented in available balance?”</i> <i>“Available balance is assumed to be positive or zero - overdrawn accounts would show negative amounts. Is the expectation for this negative value to be set to zero in this case?”</i>	Yes. Available balance should represent funds available. Yes. In this case there would be zero available funds so the available balance would be zero.
ASCII Strings	<i>“ASCIIString type is described as “Standard UTF-8 string but limited to the ASCII character set”. The ASCII character set has some 33 non-printing characters. Please clarify.”</i>	There are no fields in the standards where non-printable characters would be expected. If non-printable characters exist then it would be expected that they are escaped as per usual JSON practice.
Account Consent Changes	<i>“How are life cycle events on the account expected to impact the consent? i.e. if the relationship to the account changes does this invalidate the consent.”</i> ...also... <i>“Should an authorisation become null and void if the operational arrangement of the customer changes? For example, if the customer becomes a joint account holder or signatories change on a business entity? This is not currently accommodated.”</i>	A change in access to an account should not cause an authorisation to be invalidated. If an authorisation is used to access information for an account that the authorising customer no longer has rights to, then no data should be returned. Such an account should also not be included in a request for a list of accounts or a bulk request for data from multiple accounts.

Adherence to JSON:API	<p><i>“In the specification it references components of the JASON:API specifications rather than taking on the whole specification. Is there are reason the PI's are not being fully compliant to that specification?”</i></p>	<p>There are multiple standards that the CDR standards are attempting to comply with. In some cases these standards are not aligned. This is one reason to not seek full compliance. There are also aspects of the jsonapi.org specs that have not been included for simplicity such as the handling of relationships.</p>
Extended Data	<p><i>“What's the intent of this structure? "extension\$type": "extendedDescription", "extendedDescription": "string" It appears that we are redirecting one string field to another.”</i></p>	<p>Yes. That is how the structure works. The intent of this structure is that there is likely to be additional structures added as NPP overlay services arise and there will be a need for additional structures.</p>
International Payee Country	<p><i>“Under InternationalPayeeType\beneficiaryDetails the Country is considered mandatory, the assumption is that if it is not explicitly specified ANZ will default this value to the bankDetails country value.”</i></p>	<p>This is a reasonable treatment for this situation.</p>
Definition Of Optional	<p><i>“We have previously given feedback via DP30 that the definition of mandatory vs. optional vs. conditional for each field/object was too ambiguous e.g. sometimes within the standard Optional seemed to indicate a provider choice.</i></p> <p><i>To minimise confusion and interpretation whilst implementing the APIs we would like to see the revised version of the Standards clearly distinguish:</i></p> <ul style="list-style-type: none"> - <i>Optional (provider choice)</i> - <i>Mandatory (if the data is available)</i> - <i>Mandatory (create, capture or enrich data)</i> - <i>Conditional (specific rules which follow one of the above)”</i> 	<p>Clarification has already been provided on this issue. All fields are mandatory if data exists. Some fields are mandatory for a payload to be compliant. Some fields are mandatory for compliance, but only in specific situations so they are considered conditionally mandatory.</p>

Character Limits *“To assist with resource and capacity planning will there be a draft character limit placed on each field or are all fields assumed to have no fixed character limit?”*

As all fields are read only and provided from existing systems there has been no specification of character limits on fields. No fixed character limit is included for the purpose of schema compliance. In most situations there is a reasonable max character limit that can be assumed.

The exception to this clarification is the new data contained in the product reference payloads. Clarification of field length will be added for these fields.

Payment Amounts *“We don’t understand the difference between minPaymentAmount and paymentDueAmount and this should be further detailed in the description. They appear to be the same field.”*

The inclusion of two payment amount fields was requested in previous rounds of feedback to accommodate the scenario where a payment plan is in place where the payment amount is higher than the minimum payment technically required.

Strategic Standards Feedback

This section contains a summary of the strategic feedback provided along with recommended responses:

Topic	Feedback Summary	Proposed Response
Change Log	<p>The substantial additions and changes made to the standard since publication have made reviewing it more difficult. A changelog, as in the UK standards and clear links to the supporting git repository would help facilitate the tracking of changes and to help ensure that our responses refer to the correct version.</p>	<p>It is noted, however, that the use of GitHub for hosting of the standards provides full version control of changes.</p> <p>For non-technical audiences, however, an additional, more readable, change log will be added in future as the standards are amended.</p>
Variation To UK Standards	<p>Various stakeholders provided feedback that there was more deviation from the UK standards than expected.</p> <p>Some of this feedback was tied to the fact that some participants were planning to implement using vendors that have already built UK compliant products.</p>	<p>While there has been variation from the UK standards this has been in line with expectations set at the beginning of the process. Much of the variation has been specifically driven by community feedback. In this round of feedback a significant amount of comment, if accepted, would result in more deviation from the UK standards.</p> <p>It should also be noted that, from a standards perspective, alignment is very high. For instance, decisions around the use of common standards, payload structures and the use of REST are all aligned.</p> <p>The approach to standards has acted in accordance with guidance set by the Australian Treasury: to commence with the UK standards and build on this foundation to accommodate Australia-specific needs.</p>
Product Reference Structure	<p>One stakeholder requested that, as it was the long term intention to structure product reference data in a more strongly typed (or mixin) model that this should be the approach taken now.</p>	<p>The creation of a strongly typed structure is not feasible in the timeframes required. The current approach will remain in place.</p>

<p>Product Reference Additions</p>	<p>Extensive feedback was given on the product reference payloads and product categories. Some of the feedback was conflicting.</p>	<p>Due to the lack of consensus in the feedback it is considered that more thought needs to be given to this topic, especially among the industry participants themselves. This will be flagged as a key issue for the next round of feedback with a view to having the payloads completed before the end of December.</p>
<p>Pagination</p>	<p>Each of the major banks provided feedback that they would prefer cursor based pagination, especially for transaction data. Other respondents indicated that only one form of pagination should be supported without specifying a preference.</p>	<p>End points that rely on cursors are not idempotent or stateless and consequently breach one of the core principles of REST. This makes adoption of cursor-based pagination as the sole supported model unpalatable.</p> <p>From a pragmatic perspective, however, the performance advantages of a cursor based approach for organisations with legacy systems providing access to large data sets is understood.</p> <p>It is noted that cursor based pagination requires an initial call to initialise a cursor and then subsequent calls with the cursor to move through the resulting data set. The current standards also require the inclusion of a series URIs for first/next/prev/last page.</p> <p>In this context it would be fully standards compliant for a Bank to implement the standards as is but provide a cursor within the first/next/prev/last URIs. Any client that used these URIs for pagination would therefore be using cursors even though the standards do not explicitly support this approach.</p>
<p>Mandatory Bulk Endpoints</p>	<p>The feedback from banks that was previously received regarding the desire to make the bulk end points optional was reiterated in this round of feedback.</p>	<p>This response is a reiteration of what has previously been stated regarding this issue.</p> <p>The bulk end points have been included to accommodate the need of data consumers to regularly update data sets. Optional implementation will result in more calls to the account specific end points leading to flow on performance impacts. The preferred approach to manage this scenario is to include these end points as being mandatory but specify less onerous non-functional requirements for the levels of performance that should be expected.</p>

Non-functional Requirements	Multiple stakeholders noticed the current absence in the standards of any performance or availability requirements (also known as non-functional requirements or NFRs).	The need for NFRs is known and understood. Development of a proposal for NFRs is currently underway.
Customer vs User	<p>The following feedback was provided by CBA:</p> <p><i>“The OIDC userinfo support decision proposal was closed during the release of the Draft Standards. However there had been discussion on the distinctions between customer and user by Data Action. Commonwealth Bank encourages Data61 to address this concern, which was also echoed through feedback in the GitHub forum.”</i></p>	<p>In many services that implement OIDC the separation between customer and user is non-existent so there is no confusion. In the CDR regime this is not the case due to the inclusion of business customers. In the context of a business the user is an agent of the customer but not the customer itself. Also, it introduces situations where a single user may be an agent for multiple business customers as well as being a retail customer in their own right. Considering these complexities the use of OIDC userinfo alone is inadequate.</p> <p>For this reason the standards have assumed that the correlation of user to customer (through context, separate credentials or by asking the user explicitly) will be left to the data provider to resolve. Once resolved, however, the authorisation that is created should remain connected to the resolved context for the duration of its existence. This is analogous to how many Banks currently provide digital access to their customers. Some Banks will provide a single login and then allow the customer to switch between a business and personal context. Other Banks will provide separate, discrete user credentials for each possible context.</p>
More Links	Feedback was provided recommending that additional links (like those provided for pagination) be added to the standards for related data sets.	No commitment is being made in this round of feedback but consideration will be given to the inclusion of additional links.

Multiple Customers	Feedback was provided that the links to customer should be refactored to allow for the situation where specific customer records, or even arrays or customer records, could be requested.	The underlying foundation of the regime is the right of a customer to have their data (ie. data they have entered or generated by their activity) transferred to a third party. This does not extend to the right of a customer to transfer the data of another customer, or for a provider to open up access to all customer data. As such the context for accessing customer data records will always be in the context of a single specific customer.
Versioning	There was some feedback on versioning. One stakeholder recommended moving to a block versioning model whereas the bulk of the feedback related to expectations of maintaining currency over time and how often changes are expected.	The regime will not be moving solely to a block versioning model and will retain end point versioning. With regard to cadence of change and expectations of the maintenance of currency it is acknowledged that this is an area still being determined that will be worked on in coming months.
Admin End Points	Feedback was provided that the definition of administration end points was still outstanding. There was also a specific request for the inclusion of a health check end point in these standards once defined.	It is acknowledged that these end points are not yet defined. They will be defined once the proposal for NFRs has been published and more specificity on the Directory and the security profile are available.

Technical Standards Feedback

This section contains a summary of the technical feedback provided along with recommended responses:

Topic	Feedback Summary	Proposed Response
Transaction Type	There was extensive and consistent feedback that a transaction type field should be included in the transaction data set. There was conflicting feedback on what specific types should be included in this field with various stakeholders recommending international standards and other stakeholders suggesting more localised variants due to the specific characteristics of the Australian banking industry.	A transaction type field with a minimal type set will be included.
Additional Transaction Data	There was extensive feedback recommending additional fields to be included in the basic transaction payload. Some stakeholders recommended a large number of fields and some a smaller set. There was general consensus around a subset of these recommendations, however.	Based on the consensus of the feedback provided the following fields will be added. Fields will be non-mandatory as it is assumed that this data is not available for every transaction: <ul style="list-style-type: none"> - Merchant Category Code (MCC) - Merchant name - BPay Biller Code - BPay Biller Name - BPay CRN - APCA Number
Pending Transactions	A number of stakeholders requested additional information to allow for pending transactions to be correlated with certainty to the resulting posted transaction. Feedback from the Banks indicated that this would be difficult or impossible to provide based on their internal implementations. Recommendations ranged from expanding the data set to accommodate pending transactions better to excluding their inclusion from scope.	It would appear that being able to provide certainty of reconciliation would be unachievable in the first phase. On the other hand, exclusion of pending transactions does remove a valuable subset of data from the regime. As a result the proposed response is to leave pending transactions in scope for the transaction history end points but to provide commentary that reconciliation with posted transactions is not being actively facilitated and should not be assumed. If this is inadequate for a data consumer they can ignore the pending transactions after they have received the data.

Transaction Payload Consistency	Feedback indicates that it would be preferable for the response payloads for the bulk and account specific transaction end points to be aligned.	This change will be incorporated as recommended. This means that the accountId field will be added to account specific responses and additional account fields will be removed.
Extended Transaction Data	There were recommendations for the inclusion of extended transaction data in the bulk transaction end points to allow for this data to be obtained in bulk. There was also feedback concerned about the sensitivity of this data and requesting that it be removed from the payloads.	<p>The utility of bulk retrieval of this data is acknowledged but so is the concern around the sensitivity of the data in these extended data fields and the concern for accidental data leakage. The current standards sought to strike a balance between these two concerns.</p> <p>In the past the expectation that transaction detail will be an area for innovation both via NPP as well as via the Banks themselves also contributed to the current payload model.</p> <p>While the feedback in this round was from a wider set of parties it was inherently in line with previous feedback so no change to the standards will be made at this time.</p>
NPP Data	There was a lot of feedback provided regarding the representation of NPP transactions in the transaction detail payload. Some of this feedback was contradictory with different names for the same fields being preferred as well as different handling of service and PayID naming.	Changes for NPP data will not be included in this round of changes. This will be considered a key outstanding issue and will be investigated during the next round of feedback.
Simplification Of Payloads	Feedback was received recommending the flattening of payload structures and the removal of the "data" object.	This structure was adopted as it aligns to the jsonapi.org recommendations and the UK standards. The structure will not be changed.
Swagger Format	There was feedback on the version and structure of the swagger documents provided.	Swagger version 2 will continue to be used to facilitate implementation. The remaining stylistic and structural feedback will be accommodated.

Include Query Parameter Data In Payload	<p>Feedback requested that, where a query parameter is included then this field should also be included in the payload.</p> <p>In the standards there are a number of scenarios where this is not the case including:</p> <ul style="list-style-type: none"> • "open-status" for Banking APIs/Get Accounts. • productCategory for a number of resources. 	<p>In the scenarios referred to the query parameters have been synchronised with the query parameters for the account list end point so that a comparable set of data can be obtained. The fields being used for filtering are not desired in the resulting set, however. As a result this feedback will not be incorporated into the standards.</p>
Direct Debit Payloads	<p>Feedback on direct debits payloads and fields was minimal beyond the request to group direct debit authorisations by account for the bulk end points.</p>	<p>Direct Debit authorisations can be accessed per account (resulting in account grouping by default) or in bulk. In the latter case they are not grouped by account to maintain payload consistency (requested via other feedback). Grouping by authorised entity is not feasible in the first implementation as the authorisations are likely to be inferred from transaction history which means that the authorising entity will also be inferred, potentially inconsistently.</p>
PAFAddress	<p>Feedback is that this schema has not yet been fully articulated.</p>	<p>This is a known issue with the existing standards and will be addressed in the next iteration of the standard (no pun intended).</p>
Inconsistency between account and transaction	<p>Feedback was provided that the mechanism by which account is expanded to account detail and transaction is expanded to transaction detail is inconsistent.</p>	<p>This is due to basic transaction data being flattened to minimise payload size as it is expected that transaction data will be frequently transferred in bulk so payload size is a consideration.</p> <p>As this is purely a stylistic concern it will not be addressed in this round of change.</p>
Error Codes	<p>Multiple stakeholders suggested expanding the scenarios in which specific error codes are returned.</p>	<p>More thought needs to be given to the granularity and specificity of error codes. This will be carried into the next round of feedback as an outstanding issue.</p>

Amount Values	It was recommended by a small set of respondents that amount values should be aligned with the UK standards that include a credit/debit indicator.	This was considered early in the process but was not included as the CDR regime is mandated to go beyond banking and the amount structures are generically useful in a cross industry context. While credit/debit indicators are easily understandable for financial specialists they can be more confusing for generalists. The current position will not be changed.
Text Search	Some Banks provided feedback that text searches across multiple fields would be difficult to implement for a July timeframe and requested they be removed or made optional. This is feedback that has previously been provided.	As previously stated an optional or limited text search capability will encourage clients to download much larger transaction data sets so that they can execute client side searches. This will introduce other performance issues. It is also understood that there are a number of implementation options to reduce to the performance impact of a multi-field text search.
Value Filtering	<p>The following feedback was provided regarding transaction filtering:</p> <p><i>“min/max amount - according to the schema, a negative transaction amount implies an outgoing amount. For this filter, is this on the absolute value of the transaction amount? min/max for negatives may lead to confusion, if the search assumes non-negative then we suggest adding another filter of debit/credit which is to be used when the min/max amounts are used.”</i></p>	The current model is considered to be more flexible than the model recommended and also aligns to the consistent usage of the use of positive/negative to indicate inward/outward flows.
providerType	Feedback was received concerning the providerType field (alternatively known as accountType or productName). As this field has changed multiple times there was confusion about the current status and meaning of the field.	The purpose of this field is to provide a non-display identifier for an account type that is recognised only by a single provider. This would be equivalent to a model number in other industries. The name and description of the field will be reviewed and updated to clarify.

Balance Time Stamp	Feedback was again provided suggesting the inclusion of a balance timestamp. In this case the feedback was provided to enable caching.	It is unclear how a calculated timestamp for balance would facilitate improved caching when other mechanisms exist. The expectations around balance currency with existing channels will be addressed in the pending NFR proposal but previous responses on this topic will guide that proposal.
Account Numbers	Feedback from multiple stakeholders highlighted the fact that unmasked account numbers had not been included in any of the account payloads.	This was an oversight as indicated by the explanatory text for scopes and in the decision proposals. The detailed account payload was intended to include unmasked account identifiers for accounts with the exception that credit card PANs would continue to be masked. This will be added to the standards.
NPP Payee Type	Feedback requested the inclusion of NPP PayIDs in the payee payloads.	This feedback will not be actioned as NPP PayID is already included in payee detail as a subset of the domestic payee type.
Balances In Account Payload	Feedback was provided recommending the removal of balance from the account list end point and make this only available via the detailed end point and the balance end point.	Upon investigation this change will be incorporated as it will help the ability to cache the account list payload and improve performance characteristics.
Payee/Payer	Feedback was provided recommending that Payee/Payer be changed to Debtor/Creditor in the transaction payloads.	Payee/Payer was chosen based on specific feedback during early consultation as it was believed to be more understandable to a wider, non-bank specialist audience.
International Payee Type	A recommendation to include BIC defined via ISO 9362 in the international payee payload.	This field is included in the standard currently under the field name beneficiaryBankBIC. The description will be modified to make reference to ISO 9362.

isNegotiable Flag	<p>Feedback was specifically provided on the isNegotiable flag in the product reference payloads. Feedback indicated that providers could use this field as a way of minimising inclusion of pricing. It was also suggested that customers may misinterpret this field as indicating that products were highly flexible in circumstances where they were not.</p>	<p>This field will be reviewed and potentially renamed. The description will also be modified to clarify the intent of the field.</p> <p>This field was designed to accommodate high-end business oriented products that are essentially tailored to a specific context and therefore pricing information is unable to be provided.</p>
Credit vs Charge Card	<p>Feedback was received that a separate charge card balance type should be created alongside the credit card balance type.</p>	<p>There has been no indication that the balance fields for a charge card are different to those for a credit card. As the purpose of these structures is to represent an archetype of a balance rather than to inform regarding the type of account the objects will remain unchanged.</p>
Loyalty Points	<p>Feedback was received indicating that loyalty point balances and bonuses should be included in the payloads.</p>	<p>While this may be of utility it is hard to align the inclusion of this data with the designation instrument and rules framework. This will therefore not be included at this time but may be a candidate for inclusion in future phases of the regime.</p>
Additional Name Fields	<p>Various feedback on name fields was included such as:</p> <ul style="list-style-type: none"> - Aligning prefix with an industry standard - Adding name types - Extracting the agent fields into the Person object 	<p>This feedback was raised and addressed in previous feedback iterations. Prefix was not standardised due to concerns around existing data quality. Name types were not included as this data is not routinely captured by Banks. Agent fields were specifically separated out due to concerns that employees of an organisation should not have to share their personal information when sharing data on behalf of their employer.</p>

Card Art	There was a recommendation by Visa to include fields to specify card art for credit card accounts.	No consumers or providers have explicitly requested this information to be included or not included and there has been minimal dialogue on this topic. As a result this will be put to the community during the next round of feedback for comment.
isOwned Flag For Accounts	Feedback was repeated from previous iterations regarding the need to be able to separate accounts that are visible to the authorising customer and accounts that are explicitly owned.	This has been an open issue and has surfaced via a number of separate decision proposals. A solution that has been proposed in the past will be adopted. This is to include a boolean “isOwned” flag to the account payloads that would indicate whether an account is explicitly owned by the current customer or not. A filter on this flag would also be added to end points that can filter on account.
Based Provider Path For Open End Points	A request was made to allow a separate base URI path to be specified by a provider for authenticated vs unauthenticated end points.	This is a reasonable request and the standards will be altered to accommodate this. In addition, this concern will be picked up when discoverability is addressed.
Extensibility	A suggestion was made to specifically accommodate extensibility guidelines for additional filter parameters.	Guidelines for query parameter extension will be included in the standard along the same lines as existing extension guidelines that prefix fields with a provider specific ID.
Account Number Masking	There were a number of recommendations made around the preferred formatting options for masked account numbers.	<p>The common data types for masked account numbers will be updated and descriptions will be made more specific.</p> <p>Masking will be required for all but the last 4 digits in an account number.</p>

Minor Amendments

This section summarises minor suggestions for amendment. All items in this section will be actioned as recommended:

Description
Recommend "postDateTime" be renamed to "postingDateTime", to better clarify purpose.
Recommend to add field "valueDateTime" (optional DateTimeString). Description would be "Date and time at which assets become available to the account owner in case of a credit entry, or cease to be available to the account owner in case of a debit transaction entry." Aligns with UK Open Banking & ISO 20022
"payer" description unclear. What is meant by "Label", is it an identifier or name. Consider qualifying field name and alignment with UK Open Banking / ISO 20022 / NPP terminology using "Debtor"
"payee" description unclear. What is meant by "Label", is it an identifier or name. Consider qualifying field name and alignment with UK Open Banking / ISO 20022 / NPP terminology using "Creditor"
Regarding transaction detail field "service". Consider qualifying field name to "serviceId", remove "overlay" from description. Consistency of name & description.
Consider addition to international payee of "LEI" (optional String) with description="Legal Entity Identifier is a code allocated to a party as described in ISO 17442." Used globally.
ANZ recommend including ARBN along with ABN and CAN.
During the Data61 meeting on the 16/11/2018 there was discussion of introducing the Biller code into the interface. ANZ suggest that if this is introduced it be made optional as this information may not be available for all scenarios.
Account schema member "deposits" should be "deposit" as it is not an array. Member "purses" is plural because it is an array.
Under DomesticPayeeType for the payId PayeeAccountType Name is considered mandatory. ANZ suggest this be made optional as there will be cases where a customer has entered a PayeeId and Type but this has not been validated with the scheme as a payment has not yet been made therefore name will not be available. Note: This is something that was put in place as a security feature to stop account fishing.
As a common field across all CDR market domains, "RateString" should be "PercentageRateString" as other domains may use it for the more general usage e.g. rate of a particular measure against time. Also, a rate is effectively a ratio and would normally be manipulated and stored as a true representation of the ratio, not multiplied by 100 for human readability.
LoanEndDate, nextInstalmentDate, minInstalmentAmount and repaymentFrequency do not apply to most Overdraft type products so recommend they should be optional and not mandatory.
Additionally, Commonwealth Bank believes field such as the effectiveFrom and effectiveTo attributes are ambiguous and require additional clarity.

We propose an extension to the response schema for payees to include creation date of the payee. This would allow sorting of payees by creation date (specifically in the presentation tier).

For product reference query parameters, giving a specific meaning to effective as being a boolean is inconsistent, counter-intuitive and inflexible. For consistency with other APIs, we recommend an enum instead with the values: CURRENT, FUTURE, ALL

Documentation Errors

This section summarises where documentation errors were noted in the standards. All items in this section will be actioned as recommended:

Description
There are no end-date parameters on the Transaction requests, so it isn't possible to retrieve transactions within a specified range, only from a date to today.
AccountDetail requires "address\$type" however this is not a property on the model.
LoanAccount repaymentType and repaymentFrequency are the wrong way around.
Documentation does not match swagger for TransactionBasic vs Transaction.
The Get Transaction Detail and Get Transaction Detail have sample JSON with member "extendedData"/"extensionType" (without "\$type" suffix) whereas the referenced schema ExtendedTransactionData has the proper name "extension\$type".
Description is not correct for 'effectiveFrom' and 'lastUpdated' as it reads "A description of the product".
Sample JSON has depositRates/discountType that is not a valid member (presumably just pasted from lendingRates and not removed).
Product Category descriptions have small spelling mistakes (more than these 2 occurrences) - "The product category an account aligns with" and "The the product category an account aligns with".
Sample has member "\$balance\$type". It should be "balance\$type".
LoanAccountType/minRedraw has Type = "number(date)" and maxRedraw has "number". Presumably these should be "AmountString" like originalLoanAmount in the same schema
MaskedAccountString is specified in the common field types but never used, instead there is another type MaskedAccountNumber which is used. Suggest consolidating to one type.
Also a swagger nitpick - example code includes discountType as a field of features, but the documentation for ProductFeature does not.
We note that openStatus is missing in the response. This has previously been agreed to be included but has not made it into this version.

We note the previous change of providerType to productName in this schema has been rolled back. We assume this is an oversight as this was fixed in final published versions of DP27 and DP31.

firstName, middleNames, prefix.

These fields should be optional as they may not apply to all customers.

Required status of isPreferred field in phonenumber.

Person.MiddleNames should not be mandatory .

Links to common schema work within the page but not when used as an external link or pasted into an address bar. They are remapped to the top-level.

Add note allowing additional response codes as appropriate for caching and compression. For example HTTP 304 Not Modified might be returned when a client uses If-Modified-Since, If-None-Match, or If-Unmodified-Since in conjunction with a server ETag.

With the text “The errors object will be an array of zero or more unnamed objects.” Suggest adding heading to section containing this statement and a cross referencing discussion to error related HTTP response codes

For extensibility, change “The new end point MUST comply with the overall standards including naming conventions and data types.” to “The new end point MUST comply with standards principles including naming conventions and data types.”

Add the openStatus field to the basic account payloads.

Add detail for the definition of the PAFAddress.

PersonDetail common schema uses PhysicalAddress type whereas AccountDetail uses ‘object’.

For customer APIs, add text from decision proposal explaining when organisation is to be returned.

For person schema, Add commentary on what to do for persons with a single name.

Three instances of “defaults to today” in start-time parameter. Should be changed to “defaults to current time”.

For transaction amounts, “The value of the transaction. Negative values mean money was outgoing.”, change to, “The value of the transaction. Negative values means money was outgoing from the account.”

Clarify description of the providerType field in the account payload.

Payee detail is incorrectly assigned the basic account scope rather than the detailed account scope.

Additional specific documentation corrections recommended by Westpac:

Schema	Field name	Discrepancy
Person	lastUpdateTime	Description missing

Person	firstName	Decision is optional, standard mandatory. Description partially missing
Person	middleNames	Description missing including note that array can be empty
Person	Prefix	Formatting example part of description missing
Person	Suffix	Formatting example part of description missing
Person	organisationType	Standard is has required = false, decision has the field being required.
PAFAddress	N/A	Decision says that this will be defined in the draft standard, but there is only a placeholder
Account	productCategory	Called accountCategory in the decision. Optional in draft standard, mandatory in decision.
Account	balance\$type	String instead of enum and permissible responses from decision missing
AccountDetail	termDeposit/creditCard/loan	Decision allows for none of these to be included for appropriate account types. Standard requires inclusion of exactly one of these objects
AccountDetail	specificAccount\$type	Mandatory in decision, required is false in draft standard
AccountDetail	address	(Note our earlier feedback on security scopes in relation to this field) It is optional in the draft standard and mandatory in the decision.
ProductFee	Amount	Mandatory in decision, not required in standard
Many schemas	additionalValue	Wording in draft standard is confusing because the field isn't labelled 'Conditional'
TransactionBasic	Reference	Draft standard has required, decision has optional
Payee	Type	Enumeration is of string type