# Data Standards Body

## Technical Working Group

Noting Paper – CDR Telecommunications Standards Development Framework

## Opportunity to provide feedback

*Author: Brian Kirkpatrick*

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## Context

In preparation for bringing the telecommunications sector into the CDR regime consideration has been given as to how the telecommunication sector standards would be completed. Foremost in this consideration is how to provide as much lead time as possible for the participants that will be required to implement the rules and standards.

This paper outlines the current position of the standards and the steps that are expected to be taken to complete the standards so that they can be considered a firm baseline for implementation planning and execution. This paper is designed to obtain feedback to develop draft CDR standards. Draft CDR standards will be the subject of formal consultation at a later stage, with the opportunity to make formal submissions.

You are invited to provide feedback to the Data Standards Body (DSB) on the standards, as the are developed, by:

- lodging comments on the public GitHub repository maintained by the DSB; or
- by email to contact@consumerdatastandards.gov.au. Respondents who would like to provide feedback on a confidential basis should ensure that this is clearly indicated.

Feedback posted on GitHub is public by nature at the time of submission. Content posted on GitHub should be made according to the community engagement rules published by the DSB.

The DSB also provides a range of engagement channels and artefacts to assist the community with interpretation and implementation, including:

- The CX Guidelines, which contain optional implementation examples for key rules, standards, and recommendations, as well as open-source CX assets and a CX Checklist to aid requirement discovery.
- The CDR Support Portal forms part of an expansive Knowledge Base to draw upon during the Implementation of Consumer Data Right solutions. Providing guidance across a broad range of topics and levels of detail, the platform allows for queries to be raised to the ACCC and DSB for clarification. We do ask you check that one of the 800+ live articles, guides and FAQs first to see if there is already an answer.

- The CDR Implementation call, held weekly on Thursdays. This offers the CDR Community opportunity to interact with the DSB and ACCC technology and Rules teams for Implementation oriented topics.
- Maintenance iteration is a fortnightly meet for members of the CDR Community to work on the Consumer Data Standards. Change requests and issues are raised on the relevant GitHub repository and are worked through as a group before submitting the change to the Data Standards Chair. This is a direct method to improve and develop the Standards.
- The DSB have created a YouTube channel focusing on informative videos to support the publications and processes the DSB support. You can find introduction videos to in-depth explanations on the processes used to govern the Consumer Data Standards.

## Standards Development Principles

The DSB established a series of principles for the development of CDR standards through open consultation. The feedback thread for this decision can be found at:

https://github.com/ConsumerDataStandardsAustralia/standards/issues/1

The final set of principles are included in this document in Appendix A.

One of the key principles to specifically call out with the addition of the telecommunication sector standards to the existing set of standards is *Outcome Principle 5: APIs are consistent across sectors.*

Adhering to this principle will mean that, as the telecommunication specific standards are developed, a bias to aligned with existing patterns, types and structures will be applied.

## Divergence With Banking and Energy

There are reasons for maintaining consistency with the standards already developed for CDR and applied to the Banking sector but there are also likely to be valid reasons for divergence from these standards. This section describes the DSB's understanding of potentially valid and invalid reasons for divergence across CDR sectors.

Note that this section discusses the drivers for divergence in the standards only. The drivers for divergence in the rules, accreditation processes or other processes and mechanisms in the regime may differ.

### Valid reasons for cross sector divergence

#### Different designation instrument

This is the most obvious driver for differences between Energy and Banking sectors. The data designated will be different between the sectors. Dedicated API end points will need to be developed specifically for the telco sector data.

### Complex third-party relationships

The distributed nature of Telco data across multiple entities in the Telco ecosystem introduce complex scenarios that did not arise in the Banking sector. This may warrant changes to the overall CDR standards to accommodate these scenarios.

## Invalid reasons for cross sector divergence

### Risk profile

The data that is expected to be designated for the Telecommunication sector is likely to have varying perceived and actual risk levels depending on the data set. This is aligned to the data designated in the Banking sector. This variation may result in nuance with how specific data is treated within the regime. While the risk profile of the Telecommunication sector may result in amendment or uplift to the existing CDR Information Security profile it is not expected that a new, separate, profile should be created for the Telecommunication sector.

### Telco specific use cases

Specific, known use cases are useful to keep in mind when assessing proposed decisions as they can help identify gaps and deficiencies. Despite this, the DSB has not, to date, designed the CDR standards specifically to support a series of known use cases. This is due to the intent of the CDR regime to support increased innovation. If the CDR standards are defined specifically for a set of predefined use case there is an increased risk that the standards will not be able to be adapted to new, innovative, use cases that were not identified when the standards were developed.

## Bias to solving archetypal sector characteristics

It is known that the CDR regime will be extended to additional sectors beyond Telco, Energy and Banking.

For this reason, when need for divergence is identified due to a specific, valid characteristic of the Telecommunications sector the DSB will attempt to clearly articulate this characteristic. The resulting solution proposals will then be framed, not just the context of the Telecommunications sector, but in the context of any sector with that characteristic.

# Decision Making Operating Model

The operating model that the DSB will use for decision consultation and recommendation will align with the model used for the Banking sector. This approach was very successful in breaking down the large volume of decisions that needed to be made. It also provided the ability for the community to adapt as the rules and designation instrument iterated in parallel to the standards.

## Decision Proposal Process

The decision proposal process is the core process by which the DSB recommends decisions to the Chair for approval. This process is hybrid of common open source collaboration processes and the more formal consultation processes normally used by government departments.

This process is also align with rule 8.9 in Part 8 of the locked down CDR rules published in August 2019 which provides requirements for the consultation process for standards development.

The process is as follows:

1. Initial research into a problem space is conducted. For the technical aspects of the standards this is an internal process. For consumer experience aspects of the standards this involves a wide variety of formal research processes including preliminary workshops to invite community feedback to help shape proposals

2. The decision to be made is defined by the relevant stream lead (API and InfoSec Lead or Consumer Experience Lead) and a decision proposal document, with context and options, is published. Technical decisions are published on GitHub and CX decisions are published on the Consumer Data Standards (CDS) web site

3. Feedback on the decision is obtained from the community for a defined period of time.

4. If the feedback received allows for a reasonable consensus or compromise solution to be recommended, then a final decision document is authored defining the change to be made to the standards. If a solution cannot be recommended a new, refined, decision proposal may be initiated

5. The final decision document is provided to the Chair for review along with the feedback obtained and rationale for the decision

6. If the Chair is comfortable with the decision, then the decision document is sent to Data Standards Advisory Committee (DSAC) for a final review for a period of two business days

7. If no significant issues arise from this review the Chair will make a final determination regarding the decision document. The outcome of this determination will then be published

## Consultation Tooling

For technical and consumer experience issues, the key tooling for consultation is the issue tracker for the CDR standards repository on GitHub. This can be found at: https://github.com/ConsumerDataStandardsAustralia/standards/issues

For consumer experience issues the key tooling for consultation is the CDS web site. This can be found at:

https://consumerdatastandards.org.au/workinggroups/consumer-experience/consultations-cxworkstream/

# Foundational Decisions

Based on initial research into the telecommunications sector, the DSB has identified a series of initial issues that need to be addressed as a first order priority. These matters are seen as foundational as the decisions made in relation to these issues will have significant influence on subsequent standard development activities.

These decisions fall into two separate categories:

1. Decisions that will be influenced by policy or rules work being undertaken by agencies other than the DSB. Cross agency collaboration will be important for the development of these decision proposals

2. Decisions that are primarily technical in nature and can be worked through by the DSB in collaboration with the Telecommunications community

Note that, in describing these decisions, this document should not be seen as proposing any specific solutions. Specific solution options will be proposed in the decision proposal documents to be developed.

## Foundational policy decisions relevant to the standards

### What credentials will customers use to authenticate?

The existing level of digital enablement in the telecoms sector is lower than for the banking sector. This decision will address how telco customers with digital credentials will be authenticated within the CDR regime. The foundational policy decision that underpins this aspect of the standards relates to the eligibility of consumers with an online account with their telco retailer to access the CDR.

### What drivers exist for the consent model for telecommunications to diverge?

These insights are perceived to be at odds with the implementation of consent implemented for the banking sector. This decision will address these differences and specifically articulate how the consent for the electricity sector should differ to the model implemented for the banking sector. These specific reasons for divergence would then become requirements for standards development.

## Foundational decisions that are technical in nature

### What drivers exist for the InfoSec profile for telecommunications to diverge?

There has been speculation that the existing Information Security profile that has been defined for the banking sector may be inappropriate for the electricity sector. For standards to be amended to adapt to this need the more generally expressed concerns will need to be converted to specific statements so that specific standard and rule solutions can be proposed and exposed for consultation. This decision would seek to define the specific reasons for divergence between the standards that would then become requirements for standards development.

## What is the API end point structure?

Within the constraints of the designation instrument and rules for the Telecommunications sector the standards will need to specify how the data types that are designated are to be interpreted and a set of API end point URIs will be proposed for open consultation. This decision may in fact cover multiple separate proposals and consultations. It would also cover the scopes for access and the associated CX language for these scopes.

## What are the data payloads?

For each set of end points defined a set of payloads will need to be proposed and consulted upon.

# Appendix A: Existing API Development Principles

The list of principles below was defined in 2018 via open consultation. These principles are not sector specific and were used extensively to guide the development of the CDR standards that were applicable for the Banking sector.

## Outcome Principles

### Outcome Principle 1: APIs are secure

The API definitions will consider and incorporate the need for a high degree of security to protect customer data. This includes the risk of technical breach but also additional concerns of inadvertent data leakage through overly broad data payloads and scopes. The security of customer data is a first order outcome that the API standards must seek to deliver.

### Outcome Principle 2: APIs use open standards

In order to promote widespread adoption, open standards that are robust and widely used in the industry will be used wherever possible.

### Outcome Principle 3: APIs provide a good customer experience

The API definitions will consider and incorporate the customer experience implications. The APIs should support the creation of customer experiences that are simple and enticing to use.

### Outcome Principle 4: APIs provide a good developer experience

To ensure that the entry hurdle for new developers is low the experience of the developers that are building clients using the APIs will be considered. The ability for a developer to easily understand and write code using the APIs in modern development environments should be facilitated by the API standards.

### Outcome Principle 5: Standards are consistent across sectors

The standards will strive for consistency in patterns, structure, security mechanisms and user experience across sectors to facilitate the development of customer experiences and services that are able to integrate data from multiple sectors seamlessly and to reduce the cost of customer education for new sectors.

## Technical Principles

These principles articulate specific technical outcomes that the API definitions should seek to deliver.

### Technical Principle 1: APIs are RESTful

The API standards will adhere to RESTful API concepts where possible and sensible to do so. In particular the concepts of statelessness and resource orientation will be followed.

### Technical Principle 2: APIs are implementation agnostic

The underlying implementation of the APIs should not be constrained or driven by the API definitions and standards. Conversely, the underlying implementation choices should not be visible or derivable to the client applications using the APIs.

### Technical Principle 3: APIs are simple

As complexity will increase implementation costs for both providers and clients as well as reduce the utility of the APIs, API definitions should seek to be as simple as possible but no simpler.

### Technical Principle 4: APIs are rich in capability

As the APIs are defined care should be taken to ensure that the data payloads defined represent rich data sets that can be used in many scenarios, including scenarios not necessarily front of mind during the design process.

### Technical Principle 5: APIs are performant

The API definitions should consider and incorporate performance implications during design ensuring that repeated calls are not necessary for simple use cases and that payload sizes do not introduce performance issues.

### Technical Principle 6: APIs are consistent

The API definitions across the full suite of APIs should be consistent with each other as much as possible. Where possible common data structures and patterns should be defined and reused.

### Technical Principle 7: APIs are version controlled and backwards compatible

As the API definitions evolve care will be taken to ensure the operation of existing clients are protected when breaking changes occur. Breaking changes will be protected by a well defined version control model and by a policy of whereby previous versions are maintained for a period of time to allow for backwards compatibility.

### Technical Principle 8: APIs are extensible

The API definitions and standards should be built for extensibility. This extensibility should accommodate future APIs categories and industry sectors but it should also allow for extension by data providers to create unique, value add offerings to the ecosystem.

## Consumer Experience Principles

These principles articulate qualitative outcomes for consumer experience that the standards should seek to deliver.

### CX Principle 1: The CDR is Consumer-centric

The CDR consumer experience is intuitive and is centred on consumer attitudes, needs, behaviours, and expectations – noting that these may change over time.

### CX Principle 2: The CDR is Accessible and Inclusive

A diverse range of people are able to access, use, and comprehend the CDR ecosystem regardless of their background, situation, experience, or personal characteristics.

### CX Principle 3: The CDR is Comprehensible

When interacting with the CDR, consumers are able to understand the following:

- ***who*** their data is shared with;
- ***what*** information is shared;
- ***when*** sharing begins and ceases;
- ***where*** data is shared to and from;
- ***why*** their data is being requested; and
- ***how*** they can manage and control the sharing and use of their data.

### CX Principle 4: The CDR is Simple and Empowering

Consumer interactions with the CDR are as simple as possible, but not at the expense of informed consent, consumer control, transparency, privacy, or comprehension. Consumers should be encouraged to be privacy conscious without experiencing cognitive loads that lead to disengagement. Consumers should also be empowered by the CDR without interactive burdens being placed on them.

### CX Principle 5: Consent is Current

Consent is granted at a point in time and is only as current as the consumer's original intent. Consumer attitudes and behaviours may change over time and be impacted by external events such as the expansion of the CDR or consumer awareness. Consent terms should always align to current consumer preferences.