

# Data Standards Body Technical Working Group

## Decision 001 – API Principles

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### Context

The development of API definitions requires that any small decisions be made over a wide range of concerns. These decisions are sometimes trivial but in some cases there is no obvious option and some form of trade off must be made. In these situations a set of principles that articulate what is considered critical to the overall success of the standard can be very important to help inform the decision and ensure that the right trade offs are made.

These principles should be high level and they should change infrequently. The principles should also be applicable across the standard as a whole as it expands and evolves.

### Decision To Be Made

The list of principles that will govern the API standard definition process will be determined.

### Feedback Provided

The original proposal and the associated feedback can be found at:

<https://github.com/ConsumerDataStandardsAustralia/open-banking/issues/1>

A significant amount of feedback was provided with good coverage across the various stakeholders. A number of Fintechs, ABA and COBA all responded with detailed feedback.

The consensus of the feedback was that the principles were good but that an additional principle for Versioning/Backwards Compatibility and for API Richness should be included.

There was conflicting feedback around the topic of discoverability. This will be picked up in a future decision and does not seem to warrant an additional principle.

# Decision For Approval

The following principles, classified as Outcome Principles and Technical Principles, are proposed:

## Outcome Principles

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

### 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.

### 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.

### 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.

### 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.

## Technical Principles

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

### Principle 5: 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.

### Principle 6: 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.

### Principle 7: 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.

### Principle 8: 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.

### Principle 9: 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.

### Principle 10: 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.

### Principle 11: 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.

### Principle 12: 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.