

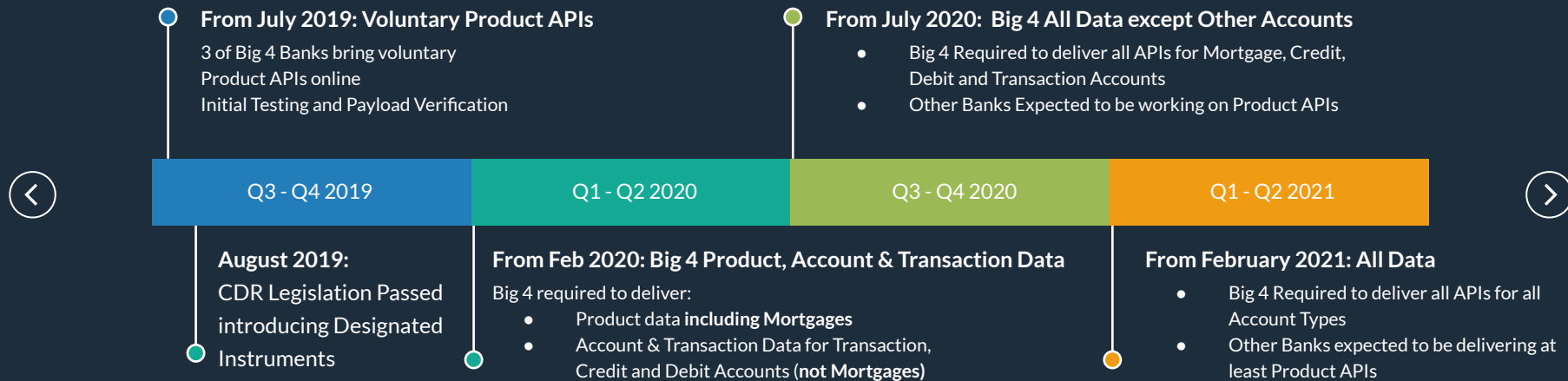
Demonstrating the CDR: Open Banking APIs

What is the Consumer Data Right?



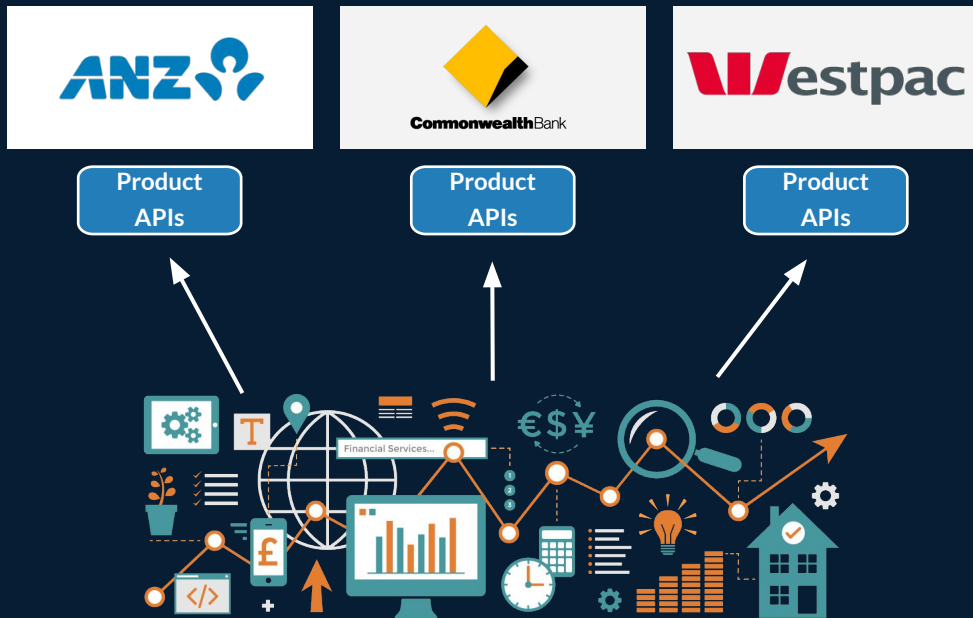
Open Banking Timelines

Personal Interpretation Only: CDR for Banking sector based on Treasury published dates



All other banks activities to follow 12 Months after Big 4

Current Status



- Standards currently at 0.9.6 with further updates due October 1
- Holder Endpoints Statically Discovered
- Only Unauthenticated APIs available
- Authentication, Authorisation, Consent and Discovery still under heavy verification
- Known conformance issues already within ecosystem. Only 1 of the 3 banks was conformant on launch in July 2019.

CDR Banking Product Coverage



Over 20 individual features described with unique business rules via use of *additionalInfo* and *additionalValue* fields:

- Included / Free Transaction Limits
- Complimentary Insurance
- Digital Banking
- Card Services
- NPP Support
- Loyalty Scheme Membership

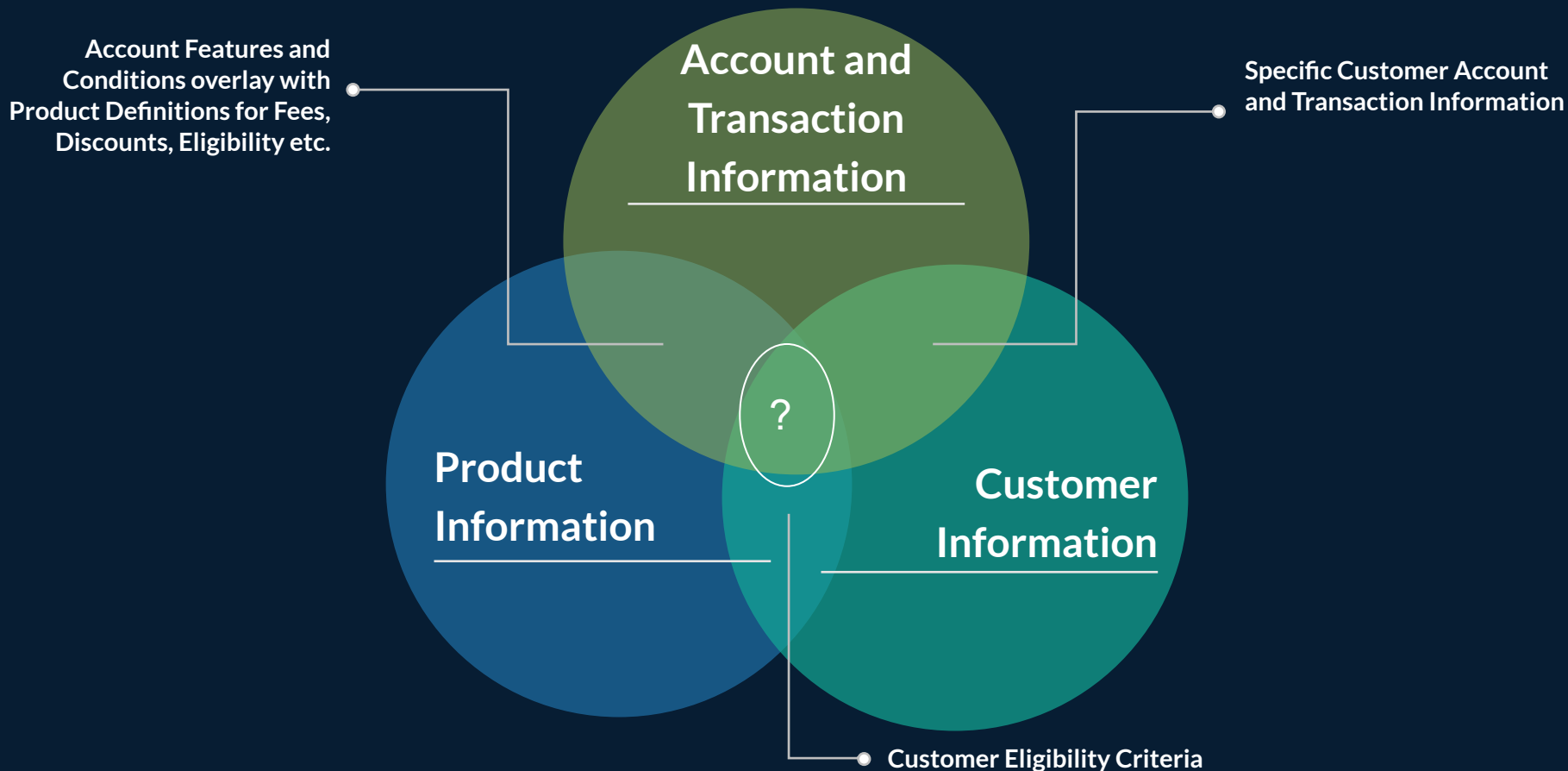
9 Types of Fees and 6 Types of Discounts described including:

- Periodic (eg. Monthly) Fees
- Deposit/Withdrawal Fees
- Event Based Fees
- Fee Cap Discounts
- Balance Based Discounts

Detailed Deposit and Lending Rate Descriptions:

- 11 Lending Rate types defined
- 7 Deposit Rate types defined
- Tiered Interest Rates

Payload Domain Venn



Standards DTO (Single Record)

```
1  {  
2  +  "data": { ...  
74  }  
75  }  
    (optional) "meta": {}
```

Optional but unused "Meta" object (intended to be a Map)

Standards DTO (Paged)

```
{
  "data": { ...
},
"links": {
  "first": "https://api.anz/cds-au/v1/banking/products?effective=CURRENT&page=1&page-size=25",
  "last": "https://api.anz/cds-au/v1/banking/products?effective=CURRENT&page=2&page-size=25",
  "next": "https://api.anz/cds-au/v1/banking/products?effective=CURRENT&page=2&page-size=25",
  "self": "https://api.anz/cds-au/v1/banking/products?effective=CURRENT"
},
"meta": {
  "totalPages": 2,
  "totalRecords": 28
}
}
```

"HATEOAS" like linking structure

Offset Pagination method with default page size limit (typically 25)

List of BankingProduct returned within a Paged DTO named *ResponseBankingProductList* in GET /cds-au/v1/banking/products

List Products

BankingProduct				
Properties				
Name	Type	Required	Restrictions	Description
productId	ASCIIString	mandatory	none	A data holder specific unique identifier for this product. This identifier must be unique to a product but does not otherwise need to adhere to ID permanence guidelines.
effectiveFrom	DateTimeString	optional	none	The date and time from which this product is effective (ie. is available for origination). Used to enable the articulation of products to the regime before they are available for customers to originate
effectiveTo	DateTimeString	optional	none	The date and time at which this product will be retired and will no longer be offered. Used to enable the managed deprecation of products
lastUpdated	DateTimeString	mandatory	none	The last date and time that the information for this product was changed (or the creation date for the product if it has never been altered)
productCategory	BankingProductCategory	mandatory	none	The category to which a product or account belongs. See here for more details
name	string	mandatory	none	The display name of the product
description	string	mandatory	none	A description of the product
brand	string	mandatory	none	A label of the brand for the product. Able to be used for filtering. For data holders with single brands this value is still required
brandName	string	optional	none	An optional display name of the brand
applicationUri	URIStrng	optional	none	A link to an application web page where this product can be applied for.
isTailored	Boolean	mandatory	none	Indicates whether the product is specifically tailored to a circumstance. In this case fees and prices are significantly negotiated depending on context. While all products are open to a degree of tailoring this flag indicates that tailoring is expected and thus that the provision of specific fees and rates is not applicable
additionalInformation	object	optional	none	Object that contains links to additional information on specific topics
» overviewUri	URIStrng	optional	none	General overview of the product
» termsUri	URIStrng	optional	none	Terms and conditions for the product
» eligibilityUri	URIStrng	optional	none	Eligibility rules and criteria for the product
» feesAndPricingUri	URIStrng	optional	none	Description of fees, pricing, discounts, exemptions and bonuses for the product
» bundleUri	URIStrng	optional	none	Description of a bundle that this product can be part of

Basic Product Information with website links for various documents

<https://consumerdatastandardsaustralia.github.io/standards/#tocSbankingproductdetail>

List of *BankingProduct* can be filtered using a number of query string criteria in GET /cds-au/v1/banking/products?{effective=\$,updated-since=\$ etc}

Filtering

Parameters				
Name	In	Type	Required	Description
effective	query	string	optional	Allows for the filtering of products based on whether the current time is within the period of time defined as effective by the effectiveFrom and effectiveTo fields. Valid values are 'CURRENT', 'FUTURE' and 'ALL'. If absent defaults to 'CURRENT'
updated-since	query	DateTimeString	optional	Only include products that have been updated after the specified date and time. If absent defaults to include all products
brand	query	string	optional	Filter results based on a specific brand
product-category	query	string	optional	Used to filter results on the productCategory field applicable to accounts. Any one of the valid values for this field can be supplied. If absent then all accounts returned.
page	query	PositiveInteger	optional	Page of results to request (standard pagination)
page-size	query	PositiveInteger	optional	Page size to request. Default is 25 (standard pagination)
x-v	header	string	mandatory	Version of the API end point requested by the client. Must be set to a positive integer. The data holder should respond with the highest supported version between x-min-v and x-v . If the value of x-min-v is equal to or higher than the value of x-v then the x-min-v header should be treated as absent. If all versions requested are not supported then the data holder should respond with a 406 Not Acceptable. See HTTP Headers
x-min-v	header	string	optional	Minimum version of the API end point requested by the client. Must be set to a positive integer if provided. The data holder should respond with the highest supported version between x-min-v and x-v . If all versions requested are not supported then the data holder should respond with a 406 Not Acceptable.

effective filtering defaults to 'CURRENT'

Brand and Product Category string filter, *updated-since* available for incremental updates.

x-v is mandatory. Current standard is an endpoint specific integer that is independent of the Standards version.

BankingProductDetail returned within a Single Entity DTO named *ResponseBankingProductById* in **GET /cds-au/v1/banking/products/[productId]**

Get Product Detail

BankingProductDetail

Properties

allOf

Name	Type	Required	Restrictions	Description
anonymous	BankingProduct	optional	none	none

and

Name	Type	Required	Restrictions	Description
anonymous	object	optional	none	none
» bundles	[BankingProductBundle]	optional	none	An array of bundles that this product participates in. Each bundle is described by free form information but also by a list of product IDs of the other products that are included in the bundle. It is assumed that the current product is included in the bundle also
» features	[BankingProductFeature]	optional	none	Array of features available for the product
» constraints	[BankingProductConstraint]	optional	none	Constraints on the application for or operation of the product such as minimum balances or limit thresholds
» eligibility	[BankingProductEligibility]	optional	none	Eligibility criteria for the product
» fees	[BankingProductFee]	optional	none	Fees applicable for the product
» depositRates	[BankingProductDepositRate]	optional	none	Interest rates available for deposits
» lendingRates	[BankingProductLendingRate]	optional	none	Interest rates charged against lending balances

Deep arrays of Metadata... too much to include.

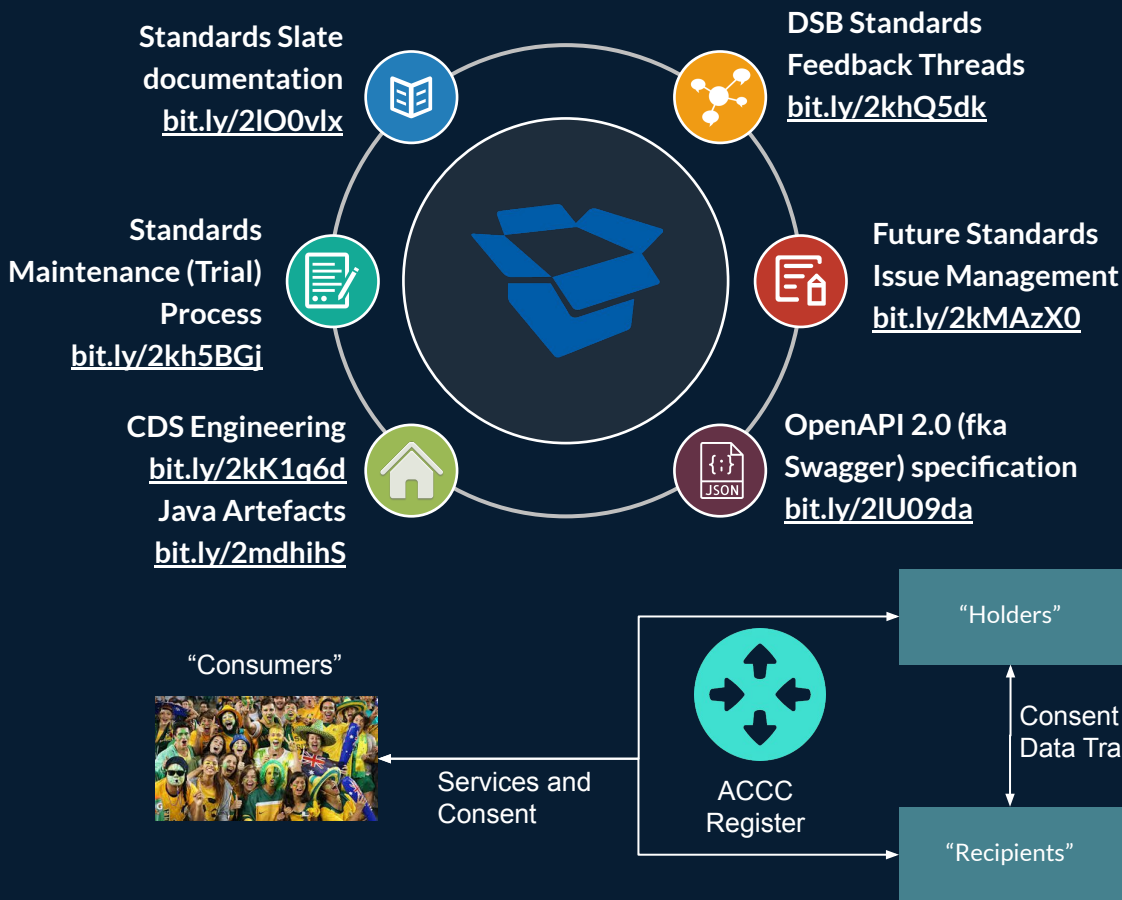
Live Demos

Postman per Bank
Data Aggregator
End User App

Post Presentation Note:

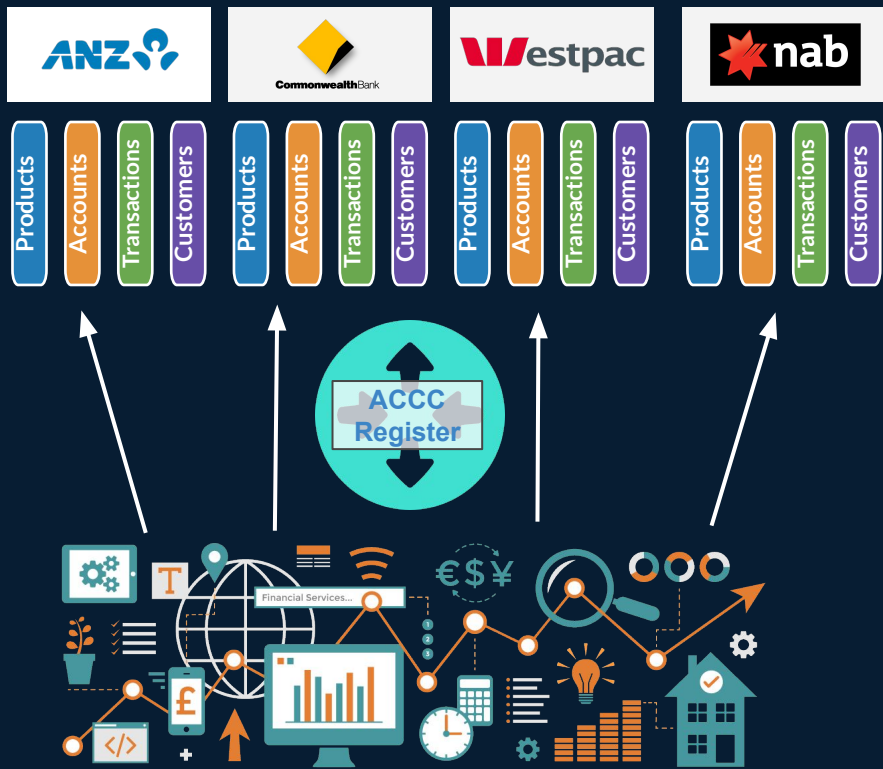
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Data Standards One Sheet



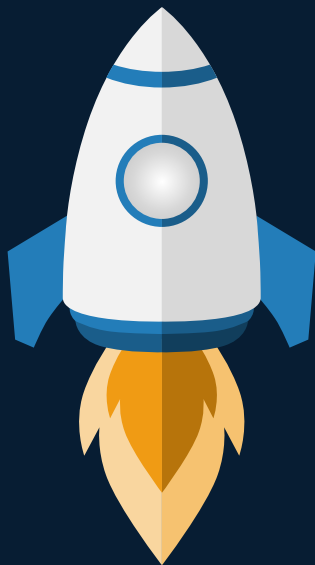
- The Consumer Data Right is the legislative instrument to require designated industries to deliver API services in the format regulated by the ACCC and delivered by Consumer Data Standards Australia a team within Data61. This format is referred to as the “Data Standards”. These are approaching 1.0.0 (bit.ly/2khQ5dk).
- “Public” or “Unauthenticated” APIs are limited to Product Information.
- Access to personally identifiable information is controlled through accreditations (“ADRs / Recipients”) and a guided consent flow being defined by the DSB. “Baseline” specification influenced by OpenID & FAPI specifications, limited technical testing so far.
- The Standards currently applies for a growing number of designated account types mandated by the CDR legislation. Metadata groups covered include:
 - Product Information
 - Currently Transaction, Credit Cards, Savings, Term Deposit
 - Mortgages soon
- Currently Drafted next stage includes:
 - Customer Information (PII)
 - Account Information (Pairwise Identifier PII)
 - Transaction Information (Pairwise Identifier PII)
 - Holder & Recipient communications establishment

“Ideal” February 2020



- Product APIs available from Big 4 Banks
- Implemented Consent flow for Customer specific information
- Customer, Account and Transaction Information
- Dynamic Discovery and Registration coupled with Software Statement Assertions (SSAs) issued via the ACCC Register Accreditation process.
- Dynamic Registration between Recipient and Holders

Thanks



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