Conformance Test Suite

Accredited data recipient guidance material

Consumer Data Standards version 1.6.0

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1.   Overview

This section provides general information about the Consumer Data Right (CDR) Conformance Test Suite (CTS) (the CTS) and will exclusively cover the accredited data recipients (ADR) scope of conformance. Separate guidance material is available specifically for data holders (DH).

It will give you an understanding of the goals and functionality of the CTS.

1.1.   About the CTS

The CTS is an important part of the CDR on-boarding process. It plays a key role in ensuring CDR works as intended for consumers.

The CTS tests if participants can conform with the Consumer Data Standards (CDS) and CDR Register (the Register) design.

It enables testing to take place in a secure environment without:

- exposing consumer data
- interacting with live software products and brands.

Participants must pass the CTS before they can be made **active** on the Register, which can be found on the CDR website (the website).

1.2.   Goals of the CTS

The CTS aims to give consumers confidence that participants:

- can enter the CDR ecosystem (the ecosystem) without disruption
- are capable of conforming with the CDS and the Register design.

To do this, the CTS tests how DH brands make and respond to various requests. It ensures they react correctly to valid and invalid requests.

This means consumers can trust that software products and brands on the Register can provide a safe and secure service.

1.3.   What the CTS is designed to do
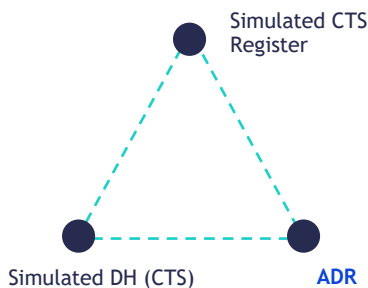
ADR's interaction with CTS

The CTS tests how ADR software products interact within the ecosystem.

The CTS tests that the ADR software product can safely interact with a data holder brand in the ecosystem. This is handled by the CTS acting as a simulated DH. The CTS interacts with the ADR software product and assesses the ADR's technical competency in conforming to the CDS.

1.4.   What the CTS is **not** designed to do

The CTS does not test the internal workings and validations of ADR software products.

ADRs should know that the CTS cannot confirm:

- how they manage consent within their software product
- that their software product correctly handles certain consent flow attack vectors
- they correctly remove consent and consumer data in their software product.

The CTS is not a sandbox or assisted development tool. The simulated CTS register and DH implements conformance test scenarios only. They do not support all endpoints and APIs and therefore should not be used for other testing purposes. CTS assumes that you have a production-ready software product that is built following the CDS and the Register design before taking on the conformance testing.

2.   Getting started

This section explains how to get ready to use the CTS.

2.1.   Checklist before you can use the CTS

You are ready to begin conformance testing when you have:

- passed accreditation as an ADR

- have a production-ready ADR software product that follows the CDS and the Register design

- have access to the CDR Participant Portal

- completed and submitted your CTS enrolment form

- performed the tasks outlined in the **CTS test preparation** section

2.2.   What the CTS will be testing

The CTS will conduct a series of tests to determine if an ADR software product can conform to the CDS and the Register design.

The CTS will test the technical competency of the ADR software products in the following areas:

- Dynamic client registration (DCR)
  - Interact with the CDR Register to initiate DCR
  - Obtain a token from the Register
  - Obtain a list of DH brands from the Register
  - Obtain an SSA from the Register for the purpose of registering with a DH from the above list
  - Achieve DCR to CTS DH.
- Consent
  - request authorisation for once-off data sharing request
  - request authorisation for data sharing request with duration
  - push authorisation request via the backchannel (PAR)
  - request authorisation via reference_uri (PAR).
- Banking APIs
  - initiate calls to Get Accounts
  - initiate calls to Get Transactions For Account.
- Consent withdrawal
  - initiate withdrawal of consent and notify a DH
  - receive withdrawal of consent (authorisation) notifications from a DH
  - initiate withdrawal of consent arrangement
  - receive withdrawal of consent arrangement from DH
  - revoke refresh token.

3. How to enrol in the CTS

This section explains the enrolment process and how to complete the CTS enrolment form.

3.1. Enrolling to use the CTS

The CTS needs to be set-up to enable you to begin conformance testing. To do this, you need to provide the technical details of your system for the environment you wish to test in. You can provide your technical details by submitting a CTS enrolment form.

For an ADR, each software product needs to pass the CTS. If you have multiple software products, each software product needs to be enrolled separately.

3.2. When to enrol in the CTS

The CTS is not designed to assist you to develop your software product.

You should enrol in the CTS when your software product is ready for production release or close to being ready.

3.3. Filling in the CTS enrolment form

The current release of the CTS requires you to complete an enrolment form. You need to complete and return the form digitally, the ACCC will not accept printed or scanned versions of the document.

You need to complete a CTS enrolment form for each software product that is required to pass CTS.

The CTS enrolment form refers to the CDR Register design for technical field definitions. Look up the definitions and make sure you provide the correct details. Incorrect technical details will result in failed tests.

The CTS enrolment form requires the CTS tester account who will log into the CTS user interface. The CTS tester account must be a valid account on the CDR Participant Portal (the Participant Portal). You will be required to setup Multi-Factor Authentication (MFA) on the account when logging in to CTS.

Once you have completed the CTS enrolment form, email it back to the ACCC On-boarding Team at CDRTechnicalOperations@accc.gov.au. Inform ACCC if tests cannot be taken.

Typically, you need to successfully complete every applicable conformance test to pass the CTS. However, if your ADR software product is not designed to execute any of the tests, you need to provide an explanation to the ACCC. For example, your ADR software product may not be able to facilitate withdrawal of authorisation (consent) if it only supports single use one-off consent. Inform the ACCC, via the enrolment form, if you cannot undertake any of the tests. CTS test preparation.

4. CTS Test preparation

This section provides information on tasks required to prepare your system after you are enrolled to the CTS.

4.1. Applying your test certificates

As part of the enrolment process, the ACCC will provide you with a test certificate. You will need to apply the test certificate to your software product before using the CTS.

4.2. Connect to the CTS DH

For ADR, CTS simulates both the Register and a DH that your software product interacts with.

A CTS Conformance ID and the CTS DH URL will be provided by an ACCC on-boarding officer during enrolment.

You will need to:

• embed the Conformance ID in the CTS DH URLs

• add the CTS DH to the DH list your software product transacts with.

Use the CTS DH URL to obtain:

• a discovery document

• a token and the software statement assertion (SSA)

• the address of the CTS DH.

4.3. Prepare test data

The CTS system assumes the ADR software product can simulate a consumer initiating consent on the CTS DH.

CTS does not store any test data used during the tests. The participant is responsible for the correct usage of customer data if real data is used.

5. Performing CTS tests

This section provides instructions on how to perform CTS tests.

5.1. ADR test plan

The CTS supports a collection of scenarios that can be composed to test plans based on the ADR conformance needs. During enrolment, an ACCC on-boarding officer will assess your test needs and create your test plan.

ADR participants are required to provide test results for all scenarios, or to provide sufficient justification on why the tests is not relevant to them.

5.2. CTS user interface

To use the CTS, you will need to login to the CTS user interface (UI). The CTS UI URL will be shared during the enrolment process.

Only the CTS tester account on the CTS enrolment form can login to the CTS UI.

5.3. Run the ADR test scenarios

You will be able to see your test scenarios after logging in to the CTS UI.

The CTS ecosystem simulates the register and a DH. The CTS waits for the ADR to engage on a collection of test scenarios, such as DCR and consent management. Note: ADRs must run the DCR scenario first and achieve a **pass** before moving on to run other scenarios. The DCR scenario establishes a client ID with the CTS and will be used in subsequent test scenarios.

After passing DCR scenario, the participant can take other scenarios in any order they want. Non-DCR scenarios are independent. You can re-run non-DCR test scenarios multiple times as needed. Where there is a need for the test consumer to grant consent, the CTS UI provides a reminder for manual steps.

Once passed the DCR scenario, it is recommended not to run it again because it will generate a new client ID. If run again, the ADR must update their code to use the new client ID for further test scenarios.

5.4. View test report

CTS UI displays a **pass** or **fail** result for each test step under a test scenario and any error messages for the test step. CTS UI displays **pass** for a test scenario after all test steps inside the scenario are **pass**. CTS UI displays **fail** for a test scenario if any test steps inside the scenario failed.

The CTS test report is the collection of test results from all test scenarios and test steps. Participants have full access to all information with the CTS test report on the CTS UI.

5.5. Submitting your test results

After completing the test run, you will be able to submit the test result via the CTS UI. However, you still need to inform the ACCC On-boarding Team via email at CDRTechnicalOperations@accc.gov.au. An on-boarding officer can then start assessing your results.

When submitting a test plan, you need to provide test results for all scenarios or provide sufficient justification on why the test is not relevant. Special consideration can be given by ACCC on whether to grant a CTS **pass** status.

Once you have submitted your test plan, the test plan is closed and you will not be able to run more tests. If you want to undergo more testing, you need to contact the ACCC On-boarding Team to create a new test plan. Doing this will overwrite previous test plans and they will no longer be accessible.

6.   Request ACCC on-boarding officer assistance

The ACCC On-boarding Team will be available to assist you with your CTS test runs and reporting.

To make it easier to track and respond to your requests, for email communication, use the following format in your email subject line:

- Software Product Ref and name – type of assistance required

7. Reference

For more information or guidance on this process, please visit the CDR website at https://www.cdr.gov.au/for-providers/conformance-test-suite-data-recipients.

If you have any questions or require additional support, please visit the CDR Support Portal: https://cdr-support.zendesk.com/

8. Glossary

This section provides a list of CTS specific terms and their meanings.

Term	Meaning
ADR	Accredited data recipient.
Authenticate / authentication	When a consumer verifies themselves with a DH. For more information see: https://consumerdatastandardsaustralia.github.io/standards/#authentication-flows.
Authorise / authorisation	A consumer confirming to the disclosure of their CDR data from a DH. For more information see: https://openid.net/specs/openid-connect-core-1_0.html#Overview.
Brand	A DH's system that is designed to interact with an ADR's software product.
CDR	Consumer Data Right.
CDS	Consumer Data Standards.
Consent	Technically used to refer to when a consumer agrees to share their CDR data with an ADR for a specific purpose (i.e. collect and use),technically distinguished from the final affirmative action (i.e. authorise) in the consent flow. Consent is also used as a term in consumer-facing interactions to refer to data sharing arrangements. Consent requirements will be communicated between the ADR and DH via the authorisation request object. The primary mechanism for capturing consent will be scopes and claims under Open ID connect. Other patterns for the establishment of consent may be considered in the future, including the incorporation of fine-grained consent for specific use cases. For more information see:

https://consumerdatastandardsaustralia.github.io/standards/#consent.

CTS	Conformance Test Suite.
CTS consumer	Acts as a consumer within CTS. Used in some test scenarios.
CTS data holder	The DH built within CTS. Used to test an ADR's software product during on-boarding.
CTS data recipient	The ADR built within CTS. Used to test a DH's brand during on-boarding.
CTS ecosystem	The components of the CTS which ADRs and DHs will interact with during conformance testing.
CTS Register	CDR Register functionality that has been replicated within CTS. Used for testing ADR software products and DH brands during on-boarding.
DH	Data holder.
E2E testing	Refers to a software testing method that involves testing an application's workflow from beginning to end.
Revoke / revocation	Revocation endpoint. DH and DR **must** implement an arrangement revocation endpoint as described in the Consumer Data Standards endpoints. The arrangement revocation endpoint is used to revoke an existing sharing arrangement. DH **must** implement a token revocation end point as described in section 2 of [RFC7009]. The revocation end point serves as a revocation mechanism that allows an ADR to invalidate its tokens as required to allow for token clean up. Revocation of refresh tokens and access tokens **must** be supported. For more information see: • https://consumerdatastandardsaustralia.github.io/standards/#end-points • https://tools.ietf.org/html/rfc7009#section-2.

Software product	A software product developed by an ADR that is designed to interact with a DH's brand to facilitate consent and request consumer data.
Test run	A single instance of end to end testing that a participant will complete, resulting in a report used as evidence that a participant has completed CTS testing.
Withdrawal	When a consumer stops a data sharing arrangement (i.e. consent/authorisation). This can occur via an ADR or a DH. This was previously referred to as **revocation**.