THE Berlin GROUP

A EUROPEAN STANDARDS INITIATIVE

Berlin Group API Frameworks

Certification Process

Version 1.0

10 February 2021

Changes

Version	Stand	Changes
0.1	02.09.2020	Creation – Internal version
0.2	04.09.2020	Internal QA
0.3	03.12.2020	Integrates the results of the common workshop in November 2020 and includes the role of scheme management entities.
1.0	08.02.2021	Integrates feedback from the openFinance Taskforce.

Contents

1 Introduction

The Berlin Group NextGenPSD2 API Framework offers a standard for a PSD2 XS2A interface that has been implemented by banks and Third Party Providers (TPPs). The Berlin Group NextGenPSD2 API Framework is planned to be extended with value added services in a new openFinance API Framework. This openFinance API differs from the XS2A interface in several dimensions:

- The extended services might not rely anymore solely on PSD2.
- Other important regulatory frameworks which apply are e.g. GDPR.
- The openFinance API can address different types of **access clients**, e.g. TPPs regulated by an NCA according to PSD2, or corporates not regulated by an NCA.
- The extended services might require contracts between the access client and the ASPSP.
- While the client identification at the openFinance API can still be based on eIDAS certificates, they do not need to be necessarily PSD2 compliant eIDAS certificates.
- The extended services might require e.g. the direct involvement of the access client's bank for KYC processes.

For the purposes of this document, 'API' may refer to NextGenPSD2 API Framework as well as to the new openFinance API Framework.

Formal certification for the core-PSD2 NextGenPSD2 APIs is restricted to technical interface certification, much less on functional/security compliance certification, as this is in the domain of the National Competent Authorities (NCAs). Technical interface certification could support the NCAs in their compliance assessments, especially in future recurring delta and regression assessments. Certification of the future value added services in scope of the openFinance API Framework is not in the domain of the NCAs and needs to be organized separately, covering functional certification and possibly also security certification.

With this document the Berlin Group proposes a possible certification and approval ecosystem model for the Berlin Group API Frameworks describing in detail the overall process of all involved roles, a detailed description of the main involved documents and a detailed description of the main processes.

The certification process described in this paper shall ensure a high quality of implementations of the Berlin Group API Frameworks.

For the approval of Berlin Group API implementations different Approval Bodies may exist following different certification processes.

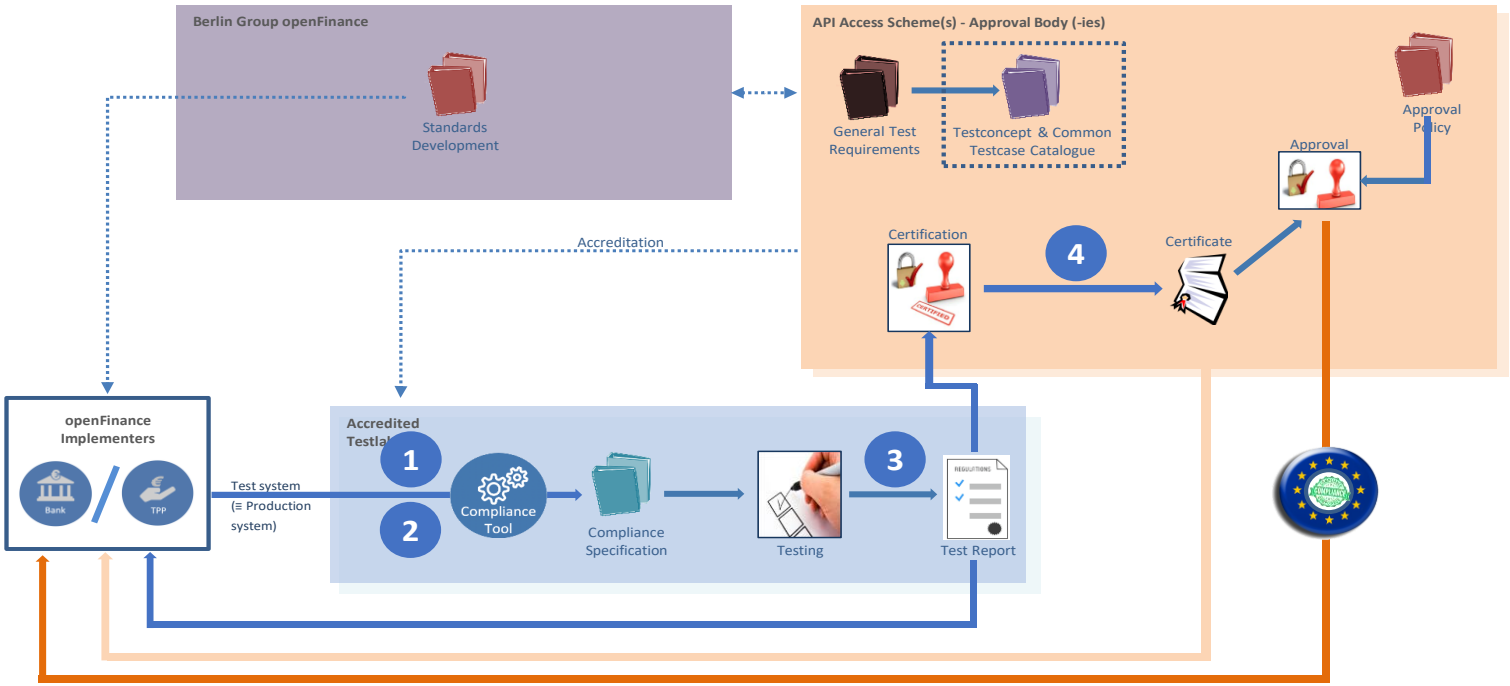
The main difference between these certification processes consists of the following two variants:

- **Variant 1:** The Approval Body is responsible for the approval **and** the certification of the openFinance implementations, in other words, there is no separate Certification Body.

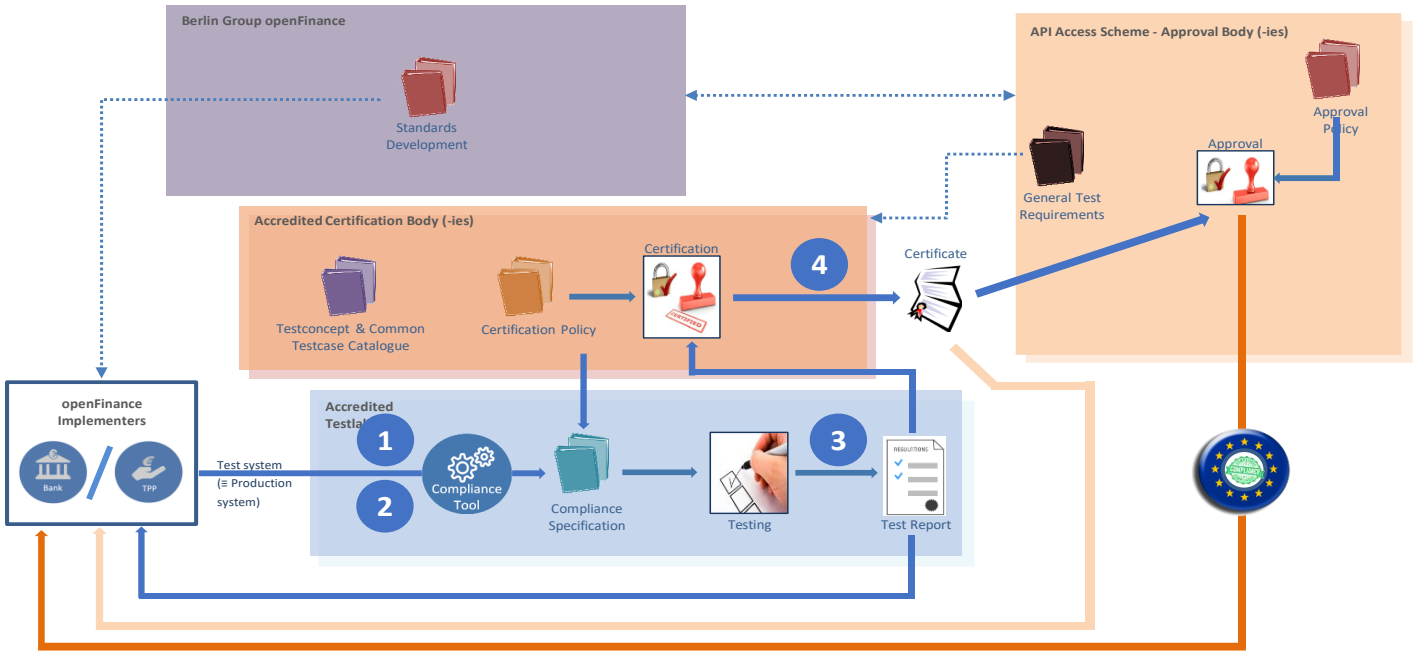
- **Variant 2:** There are two different roles for certification and approval, namely the Certification Bodies and the Approval Bodies.

For many aspects there is no difference between Variant 1 and 2. Therefore, the two variants are not described separately, but the differences between Variant 1 and Variant 2 are explained wherever necessary.

openFinance Certification Process Proposal (2nd draft) – Variant 1



openFinance Certification Process Proposal (2nd draft) – Variant 2



2 Roles

2.1 Berlin Group openFinance

Berlin Group openFinance continues to build on the NextGenPSD2 API Framework to offer extensions for value added services.

2.2 Approval Body

Each Approval Body defines an environment where its rules are binding. Different Approval Bodies will probably have different certification processes. An API Access Scheme is assumed to take on the role as Approval Body.

For the time being there are no Approval Bodies (API Access Schemes). Therefore Berlin Group openFinance undertakes to define the present certification process which then can be used and modified by interested Approval Bodies.

The Approval Body is the (future) owner of the certification process described in the present document. The certification process shall support a constantly high quality of API implementations in the market.

The Approval Body will undertake the following tasks:

- Definition and Maintenance of the Certification Process

  The Approval Body defines and maintains the certification process defined in this paper. In particular, it will adapt the roles and procedures in this paper if new developments of the API have to be considered in the certification process.

- Definition of Test Requirements

  The Approval Body defines general test requirements for an adequate quality insurance of API implementations. These test requirements impose requirements to the test specification with respect to the test coverage. They do not contain explicit test cases. In what follows these requirements are called **Test Requirements**.

- **Variant 1**. The Approval Body acts also as a Certification Body. In particular, there are no separate Certification Bodies.

- **Variant 2**. Accreditation of Certification Bodies

  The Approval Body accredits Certification Bodies for the certification process defined in this paper. For more details see Section 4.1.

2.3 Certification Bodies

Certification Bodies undertake the following tasks (note that in **Variant 1** the certification body is part of or identical with the Approval Body):

- Definition of a Test Concept and of a Test Case Specification

  Each Certification Body develops a Test Concept and a Test Specification fulfilling the Test Requirements of the Approval Body (see Section 2.2).

  The Test Concept explains how the Test Requirements of the Approval Body are fulfilled. The Test Specification defines the individual test cases.

- Definition of a Certification Policy

  The Certification Body defines a Certification Policy which defines its rules for the accreditation of test laboratories and for the certification of API implementations.

- Accreditation of Test Laboratories

  Each Certification Body accredits one or more Test Laboratories for the execution of the test cases defined by the Certification Body.

- Certification of Berlin Group API Implementations

  Based on its Certification Policy and on the Test Report of the Test Laboratory the Certification body certifies an API implementation.

2.4 Test Laboratory

Test laboratories will undertake the following tasks:

- Implementation of a suitable test infrastructure

  Each Test Laboratory implements a suitable test infrastructure in order to test the API implementations. The necessary test tools may be implemented by the Test Laboratory, or the test tools of a Test Tool Vendor may be used.

- Evaluation of the ICS of an API implementation

  Depending on the business model of the API implementer a concrete API implementation does not need to support all options of the API. Part of an API implementation is an Implementer Conformance Statement (ICS) explaining to what extent the API has been implemented.

  The Test Laboratory evaluates the ICS of an API implementation and will determine the applicable test cases.

- Execution of the Test Cases

  The Test Laboratory will execute all relevant test cases. The relevance of a test case depends on the ICS of the API implementation.

- Delivery of the Test Report to the Certification Body

  The Test Laboratory sends the test report to the certification body. For more details see Sections 3.7 and 4.4.

2.5 Test Tool Provider

Test Tool Provider will undertake the following tasks:

- Development of the Test Tools

  A Test Tool Provider develops the necessary test tools for testing the API implementations. A Test Laboratory can be a test tool provider at the same time.

  The test tool has to provide an implementation of the test cases specified by a certification body.

  In particular, the test tool must allow to restrict the execution of the test case to a subset of test cases according to the Implementer Conformance Statement (ICS) of the API Implementer.

2.6 API Implementer

API Implementer will undertake the following tasks:

- Implementation of the API

  The API implementer provides an implementation of the API. The API implementer can be a bank who is, for example, implementing the API for its own use.

  It can also be a service provider who implements the API for one or more ASPSPs.

- Provision of the Implementer Conformance Statement (ICS)

  The API Implementer has to provide the Implementer Conformance Statement (ICS) for its API implementation. The ICS explains which options of the API Interface are supported, and it provides some configuration data.

3 Main Documents

3.1 API Interface Specification

Author: Berlin Group

Specification which defines the API Interface.

3.2 Certification Process

(proposed) Author: For the moment: Berlin Group openFinance, later on: Approval Bodies

The certification process is the present document defining the overall certification process.

3.3 Test Requirements

Author: For the moment: Berlin Group openFinance, later on: Approval Bodies

The main task of the certification process is to guarantee an adequate quality insurance of API implementations. The main tool is the execution of tests based on an appropriate test specification. Since the certification process allows the use of different test specifications, it is important to ensure that all test specifications respect a minimum test coverage and – as a consequence – a minimal quality level.

The Test Requirements impose requirements to the test specifications with respect to the test coverage. They do not contain explicit test cases.

3.4 Test Concept and Test Specification

Author: Certification Body

Each Certification Body has to provide

- a Test Concept and
- a Test Specification.

The Test Specification defines all test cases which are relevant for the certification of an API implementation. The Test Specification must fulfill the requirements formulated in the Test Requirements. If a test case is dependent on an option of the API interface, this dependency must be explained.

The Test Concept is a document explaining how the Test Requirements of the Approval Body are fulfilled. It mainly explains why the full set of the test cases of the Test Specification provides the test coverage imposed by the Test Requirements.

3.5 Certification Policy

Author: Certification Body

The Certification Policy is a document of the Certification Body describing its roles and processes in the certification process. The Certification Policy has to contain at least the following information:

- Roles

  Description of the main roles within the certification process.

  Assignment between roles and persons.

- Expertise

  Explanation how a sufficient expertise is guaranteed.

- Processes

  Description of the main processes of the certification process, in particular

  - Accreditation of a Test Laboratory.
  - Certification of an API implementation.
  - Maintenance of the certification process and the documentation.

- Documentation

  Explanation of the documentation process

  List of the relevant documents

3.6 Implementer Conformance Statement (ICS)

Author: Test Laboratory (form definition); API Implementer (completed form)

The Test Laboratory passes to each API implementer an Implementer Conformance Statement. The purpose of this formula is for the API implementer to indicate which optional parts of the API interface are implemented and which are not

Accordingly the Test Laboratory has to select those test cases of the Test Specification which are applicable.

3.7 Test Report

Author: Test Laboratory

The test report is a document delivered by the Test Laboratory to the Certification Body with respect to a test session between Test Laboratory and API Implementer. It indicates the result of the test. It has to contain at least the following information:

- Version number of the API Interface Specification
- Identification of the API Implementer
- Identification of the API implementation
- ICS (see Section 3.6) of the API implementation
- Overall test result
- List of executed test cases with the test result of each test case
- Additional explanation if necessary

4 Processes

4.1 Accreditation of Certification Bodies

Involved Roles: Approval Bodies, Certification Body

Note that this process only exists in **Variant 2**.

A (potential) Certification Body can apply for accreditation at an Approval Body. As a first step it will obtain the Test Requirements (see Section 3.3) from the Approval Body.

For the accreditation the (potential) Certification Body will include the following documents into its application:

- Certification Policy (see Section 3.5)
- Test Concept and Test Specification (see Section 3.4)

The Approval Body checks whether these documents fulfill its requirements. In particular, it will verify whether the Test Concept explains how the Test Requirements are met. Random checks are carried out on the Test Specification.

At the end of the process the Approval Body will accredit the (potential) certification body, ask for improvement or reject the accreditation.

4.2 Accreditation of a Test Laboratory

Involved Roles: Certification Body, Test Laboratory

A (potential) Test Laboratory can apply for accreditation at a Certification Body. As a first step it will obtain the Test Concept and the Test Specification (see Section 3.4) from the Certification Body.

The details of the accreditation are established by the Certification Body. The Certification Body has to verify that the Test Laboratory

- has appropriate processes for executing the API interface tests according to the Test Specification,
- has an appropriate test infrastructure for executing the tests of the Test Specification (random checks of several tests),
- is able to make the correct choice of test cases according to the ICS.

The test infrastructure can either be developed by the Test Laboratory itself or can be purchased from a Test Tool Provider.

4.3 Certification of an API Implementation

Involved Roles: Certification Body, Test Laboratory, API Implementer

An API Implementer may ask a Test Laboratory for testing (and certifying). The Test Laboratory will inform the Certification Body about this request.

The Test Laboratory will execute the test cases of the Test Specification according to the ICS. At the end of this process the Test Laboratory will send a Test Report (see Section 3.7) to the Certification Body.

The Test Report refers to a specific version of the API Interface Specification, to a specific version of the Test Concept and to a specific version of the Test Specification.

Based on the Test Report the Certification Body decides about the Certification of the API Implementation. If the Test Report contains test cases whose execution failed, the Certification Body can nevertheless decide to certify the API Implementation. However, in this case a rationale is necessary.

The Certification Body will inform Berlin Group about the certifications.

4.4 Execution of Tests

Involved Roles: Test Laboratory, API Implementer

The API Implementer will inform the Test Laboratory about the version of the API Implementation supported by the API Implementation. It will provide an ICS with the necessary information about the options of the API Interface supported by the API Implementation and with the necessary information about configuration data (such as account numbers).

The API Implementer will provide a possibility to execute the tests. The tests may be executed using a specific testing environment of the API Implementer.

The Test Laboratory will execute the test cases of the Test Specification according to the ICS and will send a Test Report to the Certification Body.

The Test Laboratory will store a detailed test documentation (log-files, etc.) for at least xx years.