

Certification Policy

Rules and Procedures for the Certification Program

Version 3.2.00

2025-03-31

[CERT_POL]

NFC Forum[™]

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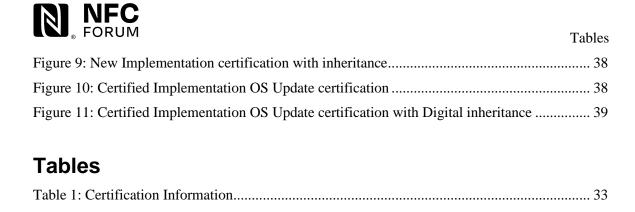


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1 Introduction

This document defines the policies that govern the operation of the NFC Forum Certification Program. The policies define what can be certified, what it means to be certified, and the processes for achieving and maintaining certification. These policies also define the obligations of the Suppliers of Certified Implementations, including both:

- A requirement for the Supplier to warrant and represent that the Certified Implementation meets the Applicable Certification Requirements, which include conformance to the NFC Forum Specification(s), as these specifications are interpreted by the NFC Forum.
- A result of "Pass" from the Certification Tests that are based on the currently authorized versions of the approved test tools and Test Cases documents listed on the NFC Forum website.

1.1 Purpose

This document is intended primarily for the Supplier looking to certify a device and the test laboratory planning to provide testing services. This policy, in conjunction with the Devices Requirements [DEVREQS], Certification Agreement and Certification License Agreement, constitutes a complete set of requirements and obligations for achieving certification. The Buyer intending to procure Certified Implementations will also find this document useful for understanding what can be expected from a Certified Implementation.

The NFC Forum Certification Program is not intended to impose any constraints on the way in which conformance is achieved, nor is it intended to constrain whether or how Certified Implementations are integrated into higher level products.

For example, an NFC Forum Implementation MAY be developed by a laptop computer vendor as a module for integration into one or more ranges of laptops. The laptop vendor MAY choose to certify the module and MAY also choose to certify one or more of the ranges of laptops in which the module is incorporated. The laptop vendor might also choose to sell the certified module for incorporation into a second vendor's laptops, which themselves MAY then be certified by the second vendor.

NFC Forum recommends to certify the final products reaching the end user (e.g., Laptop) to ensure a consistent user experience.

It is also possible that the developer of the module MAY never offer it for sale as a separate product.

The NFC Forum Certification Program does not constrain the way in which a Certified Implementation reaches the end customer but does allow for products that incorporate implementations to be certified without unnecessary technical or administrative effort.

In this document the term *Certified Implementation* is used to refer to any product that is certified. In the laptop example mentioned above, both the certified module and each certified laptop incorporating that certified module would be referred to as Certified Implementations and listed in the Certification Register.



The following elements, while deemed necessary for the successful deployment of an NFC Compliant Device, are currently outside the scope of the NFC Forum Certification Program:

- Regulatory requirements and government approvals
- Application layer certification.

1.2 References

1.2.1 Normative References

[DEVREQS] NFC Forum Devices Requirements,

Applicable version as identified by a Certification Release,

NFC Forum

[ISO/IEC_17025] ISO/IEC 17025,

General requirements for the competence of testing and calibration

laboratories,

2017, ISO/IEC

[RFC2119] Key words for use in RFCs to Indicate Requirement Levels, RFC

2119,S. Bradner,March 1997,

Internet Engineering Task Force

[CC_GLOSS] Compliance Committee Glossary

Latest version NFC Forum

1.2.2 Informative References

[LABREQS] NFC Forum Authorized Laboratory Requirements

Latest version of the NFC Forum Authorized Laboratory Requirements available to all NFC Forum members,

NFC Forum

[MAINTPROC] Test Case and Document Maintenance Process

Latest version of the Test Case and Document Maintenance Process

available to all NFC Forum members,

NFC Forum

[NCIRP] NCIRP (NFC Forum Issue Resolution Panel) Guide,

Latest version of the NCIRP Guide available to NFC Forum members,

NFC Forum

1.3 Administration

The Certification Policy is supported and maintained by the Near Field Communication Forum, Inc., located at:

401 Edgewater Place, Suite 600

Wakefield, MA, 01880



Tel.: +1 781-876-8955 Fax: +1 781-610-9864 http://www.nfc-forum.org/

Certification administrator may be contacted at : cert-admin@nfc-forum.org

1.4 Special Word Usage

The key words "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

1.5 Intellectual Property

This document conforms to the Intellectual Property guidelines specified in the NFC Forum's *Intellectual Property Rights Policy* (https://nfc-forum.org/governance/NFC-Forum-IPR-Policy.pdf), as outlined in the NFC Forum *Rules of Procedure* (https://nfc-forum.org/governance/NFC-Forum-Rules-of-Procedure.pdf).

1.6 Language

The NFC Forum Certification Program documentation and website are written in standard American English.

All certification forms SHALL be completed in English, and all Certification Information and other information provided to the <u>Certification Administrator</u> in connection with certification SHALL be in standard American English.

1.7 Website

The Certification Program website is available at http://nfc-forum.org; look for a link to the Certification Program.

The Test Plan Generator (TPG) is available at https://nfc-forum-itp.com/



2 Scope

The purpose of the NFC Forum Certification Policy document, this document, is to provide guidance in relation to the NFC Forum Certification Program.

The NFC Forum Certification Program provides for certification implementations of NFC Forum Devices that meet the requirements defined in [DEVREQS].

In this document the term "certification" applies to and is limited to the NFC Forum Functionality of a Certified Implementation, as claimed by the Supplier in the Certified Implementation's Implementation Conformance Statement (ICS).

Certification for subsets of NFC Forum Devices, other than what is defined in [DEVREQS] is not available in this version of the program but might be included in a subsequent version.



3 Certification Process

The NFC Forum Certification process is divided into three phases:

- Preparation
- Certification Testing
- Reporting and Acceptance

These phases are described in the following sections.

3.1 Preparation



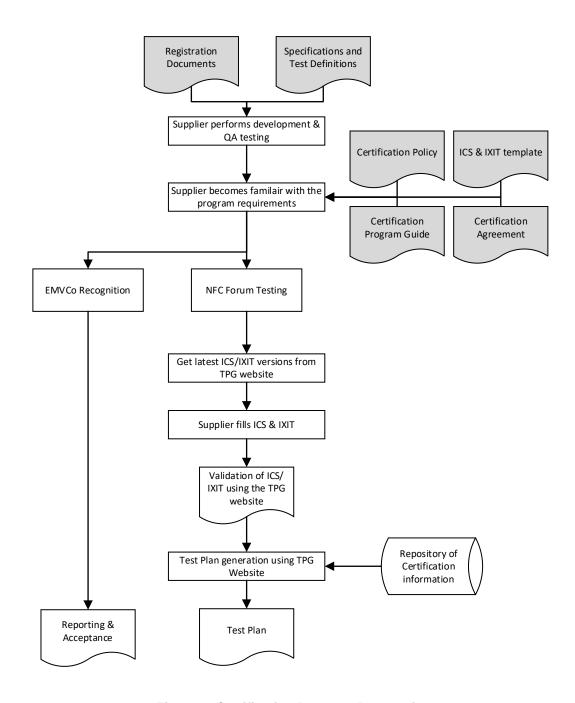


Figure 1: Certification Process: Preparation

Prior to registering for certification, it is RECOMMENDED that the Supplier performs internal development and quality assurance testing using:



- Validated NFC Forum test tools and testbeds (see Section 7.2)
- The NFC Forum Test Cases (for further information see: http://nfc-forum.org)
- Any additional verification methods the Supplier considers appropriate

To ensure that the product meets the Applicable Certification Requirements and is ready for entry into the Certification Program. Participation in NFC Forum Plugfests is recommended.

In addition, the Supplier SHOULD become familiar with the Certification Program and the requirements for certification, and SHOULD review this document (the policy document), the requirements list [DEVREQS], the legal agreements that are part of the program, and other related information. All information and documents related to the NFC Forum Certification Program are available on or linked from the Certification Program website.

For NFC Forum Testing, the Supplier SHALL choose one or more Authorized Test Laboratories (ATL) (see Section 10) to perform the necessary Certification Testing for the product.

Otherwise for EMVCo recognition, the supplier that has completed an EMVCo L1 mobile product testing process and request a certificate for the CCC Digital Key CE device class as defined in [DEVREQS] SHALL continue directly to Chapter 3.3 Reporting and Acceptance.

The Supplier independently or in consultation with the chosen ATL(s) SHALL prepare the Implementation Conformance Statement (ICS) and the Implementation eXtra Information for Test (IXIT) for the product. For any certification testing the latest version of the combined ICS/IXIT form as provided by the TPG webpage SHALL be used.

The TPG tool access is reserved to NFC Forum members for non-commercial testing and ATLs for commercial testing

All authorized members may request from the NFC Forum <u>Certification Administrator</u> an account to the <u>TPG</u> website.

The filled ICS/IXIT SHALL be validated using the TPG website.

In consultation with the chosen ATL(s), the Supplier develops a Test Plan for the product:

- The development of the Test Plan takes into consideration the Supplier's quality management data, to identify which aspects of the product have changed compared to any previously certified versions of the product (see Section 8).
- The Test Plan development also takes into account whether any test results MAY be inherited from previously certified NFC Forum Implementations that are incorporated in the product (see Section 8 and Section 9).
- The Test Plan SHALL be generated using the <u>TPG website</u>.

The Supplier is responsible for ensuring that the ICS, IXIT and Test Plan for the product are complete and correct. The <u>TPG website</u> gives final confirmation for correctness.

The ATL is responsible to provide and validate the ICS/IXIT file and to generate the ITP for the non NFC Forum member.

In the event the Test Plan cannot be generated by the <u>TPG website</u>, after due diligence from the Device Manufacturer, and the ATL, the ATL SHALL inform the <u>Certification Administrator</u> of the issue in writing and provide all relevant evidence of the issue. The ATL will then be able to proceed with a Test Plan generated in other ways.



3.2 Certification Testing

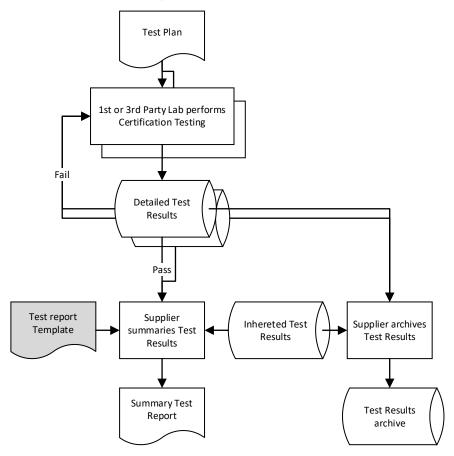


Figure 2: Certification Process: Certification Testing

Formal testing of the product then takes place according to the Test Plan. Different aspects of the product, e.g., analog, protocol and performance (for Tag Devices), MAY be tested in parallel at different test labs using identical instances of the product.

The Supplier SHALL store all detailed test results used to substantiate applications for certification for a period of no fewer than 7 years.

Using the NFC Forum Summary Test Report Template from the <u>Certification Program website</u>, the test labs SHALL produce digitally signed Summary Test Reports that the Supplier assembles, along with any inherited test reports, into a complete Summary Test Report for submission to the <u>Certification Administrator</u>. At the time it is prepared, the scope of the complete Summary Test Report SHALL match the scope of the functionality claimed in the product's ICS for which the NFC Forum requires Certification Testing.

In the event that any test fails due to an agreed Interpretation, Waiver, or Test Case Deficiency, the Supplier SHALL provide the correct reference to an approved Interpretation, Waiver, or Test Case Deficiency in the Summary Test Report.



3.3 Reporting and Acceptance

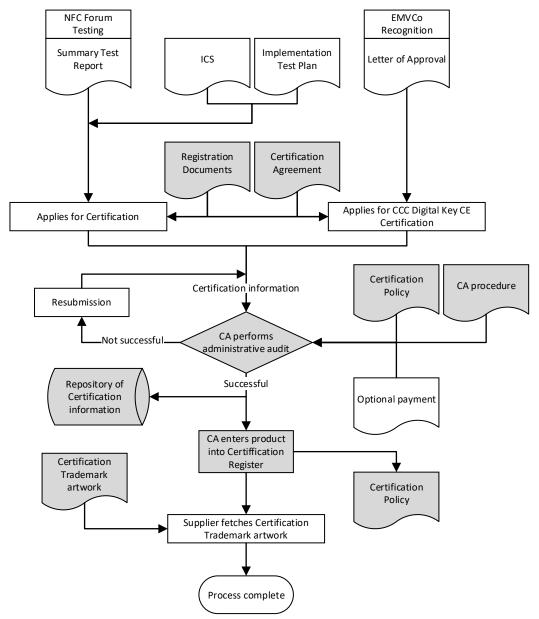


Figure 3: Certification Process: Reporting and Acceptance

Before applying to certify products, the Supplier SHALL first register the organization's contact information with the <u>Certification Administrator</u>. This needs to be done only once per Supplier, after which multiple products MAY be certified. Large organizations with more than one business unit producing products for certification MAY wish to register the separate business units with the <u>Certification Administrator</u>.



To apply to certify a product, the supplier SHALL submit the required information regarding the product to be certified, including the ICS, IXIT, Summary Test Report, and Test Plan for NFC Forum testing, and sign to attest that the information provided is true and accurate during the certification registration on the public NFC Forum website.

The Supplier has to pay a fee (Payment box in Figure 3) for product renaming or rebranding as well if the Supplier runs a 1st party Laboratory.

The Certification Administrator will check to ensure that the submitted certification information, including the registration information and

- For NFC Forum Testing, ICS/IXIT, Test Plan and the test results, demonstrates that the product passed the formal testing process and meets the Applicable Certification Requirements.
- For EMVCo Recognition, the EMVCo Letter of Approval of an EMV Contactless Level
 1 Mobile Product demonstrates that the product meets the CCC Digital Key CE device
 Class Requirements as defined in [DEVREQS]

The Certification Administrator will perform the audit of all certification-related information within 10 calendar days of receiving a complete submission.

The product is now certified

Provided that the Supplier has not requested that the certification remain confidential, the Certification Administrator will enter information about the Certified Implementation into the Certification Register on the Certification Program website, and anybody will then be able to download and print the Certificate.

If the Supplier has requested that certification remains confidential, then the fact of certification and the Certification Information will be kept confidential to the Certification Administrator and the Supplier, with restrictions outlined in Section 14.3.



4 Certification

It is the Supplier's responsibility to ensure that at all times each of its Certified Implementations meets the Applicable Certification Requirements and continues to pass the tests that were in force at the time of certification, independent of any changes made to the Certified Implementation.

4.1 Certification and Test Release

A Certification Release is a group of consistent Test Cases and process documents, to aid product procurement, development and certification. For a given Certification Release, the set of interoperability modules and features that need to be supported by NFC-Forum-compliant devices, are defined in a particular version of [DEVREQS]. Each feature is defined by requirements in Technical Specifications. NFC Forum releases at least one version of a set of consistent Test Cases documents, called a Test Release. New versions of Test Cases documents MAY lead to new Test Releases for the same Certification Release. Only one version of Test Release can be active at any given time for one Certification Release. All active documents for a Certification Release are available on the Certification Program website.

The terms Certification Release and Test Release are defined in [CC_GLOSS].

4.1.1 Generic requirements for Certification Releases

A new Certification Release maps to a version of [DEVREQS], but a new version of [DEVREQS] does not necessary result in a new Certification Release. After [DEVREQS] is published, the NFC Forum SHALL complete the following additional activities prior to announcing a new Certification Release:

- Define the content of a Test Release (see Section 7.1), containing relevant published NFC Forum defined Test Cases documents
- Obtain NFC device samples supporting [DEVREQS] available to the NFC Forum for use in validating test tools to be used in the Test Release.
- Ensure the <u>Test Plan Generator</u> supports the new Certification Release and/or Test Release, including ICS, IXIT and TCMT.

The NFC Forum SHALL ensure that appropriate testing supporting the identified [DEVREQS] is available as follows:

- Complete support for certifying of all features
- Validate tool as defined in the test tool requirements
- Validation status reflected in the Test Case Categories List (TCCL) by promoting the status of tests for the new [DEVREQS] from "C" to "V" category (see Section 7.3.2).
- Approved tools made available to NFC Forum Test Laboratories and a Test Laboratory readiness target identified by the NFC Forum is reached (e.g., three labs ready and capable of testing).

Certification Releases SHALL document and identify:



- The applicable version of the NFC Forum Devices Requirements ([DEVREQS])
- The Test Release(s) that makes testing for [DEVREQS] features available (all subsequent Test Releases SHALL support testing for this [DEVREQS]). Therefore the active Test Release made available by the NFC Forum under the same Certification Release SHALL be used for the particular Certification Release.

The NFC Forum, at its sole discretion, will decide when to publish a new version of [DEVREQS], but this would typically be caused by an extension to the NFC Forum Functionality.

During the lifetime of a particular Certification Release, the Test Cases it contains MAY be subject to errata and interpretations. Test Cases will typically continue to be extended and updated during the lifetime of a Certification Release and will be made available in a new Test Release(s), as necessary.

NFC Forum will issue a certificate indicating the Certification Release against which a device has been certified.

Suppliers SHALL only certify products using Active Certification Releases. The list of "Active Releases" is available on the Certification Program website.

4.1.2 Certification Release Grace Period

When a new Certification Release is published, the NFC Forum SHALL provide a grace period of up to 18 calendar months on the previous Certification Release (except for Automotive device classes see 4.1.3). During this grace period, a Supplier seeking certification has the option to certify against a previous Certification Release as long as it is on the list of "Active Releases" on the Certification Program website.

During the grace period, if the Supplier is unable to add newly required features to a product as part of a new Certification Release, the Supplier SHOULD apply for product certification under a previously active Certification Release and SHOULD support the [DEVREQS] associated with that Certification Release.

If the Supplier claims support for the new features included in the new Certification Release, the Supplier SHALL apply for product certification under the new Certification Release and SHALL support the [DEVREQS] associated with that Certification Release.

After a previous Certification Release's grace period ends, this Certification Release will be removed from the list of "Active Releases" on the <u>Certification Program website</u> and placed in the "Expired Releases" list.

After the grace period ends, the expired Certification Release will become invalid and a Supplier SHALL apply for product certification under an Active Certification Release that supports the [DEVREOS] associated with the Active Certification Release.

If a Certification Release expires, products certified to the expired Certification Release MAY be updated and maintained and remain certified according to this policy, but new certifications on an expired Certification Release are not allowed.



4.1.3 Automotive Certification Release Grace Period

In order to take into account the development cycles of the automotive industry, NFC Forum defines an Automotive Certification Release Grace Period of 72 months. The Automotive Certification Release Grace Period applies only to the automotive device classes defined in [DEVREQS].

Test cases applicable for these automotive device classes will be maintained until the Automotive Certification Release Grace Period expires, irrespective if the Certification Release has been expired or not. A supplier will be able to select the set of test cases related to a single certification release defined within the Automotive Certification Release Grace Period for automotive device classes.

If no change has been performed to a test case applicable for the automotive device classes, i.e., if the test case of the upcoming Certification Release is identical to the test case in the previous Certification Release, NFC Forum will not maintain such a test case separately but will rather maintain it as part of the latest active Certification Release.

NFC Forum test tools shall maintain the updated or changed test cases of expired test releases related to the automotive device classes for the entire Automotive Certification Release Grace Period within the latest active Certification Release.

Once the Automotive Certification Release Grace Period expires, NFC Forum will remove any such previously maintained test cases from the active Certification Release.

Appendix A lists and visualizes examples how the Certification Grace Period and Automotive Certification Grace Period are applied.

4.1.4 Test Release Grace Period

When a new Test Release is published, the NFC Forum SHALL provide a grace period of 1 calendar month on the previous Test Release. During this grace period, a Supplier seeking certification has the option to certify against a current Certification Release with the previous Test Release.

This Test Release Grace Period will enable the ATLs be ready to offer certification for the new Test Release.

After a previous Test Release's grace period ends, this previous Test Release is no more applicable.

4.2 Applicable Certification Requirements

The Applicable Certification Requirements for a particular product or Certified Implementation are the combination of the following items in force or active at the time of submission of the Certification Information to the Certification Administrator:



- The functionality REQUIRED and allowed by [DEVREQS] and claimed in the ICS for the Certification Release.
- The applicable Test Cases documents in the Certification Release, including errata REQUIRED by the NFC Forum.
- The tests for this claimed functionality.

The Applicable Certification Requirements exclude tests that become REQUIRED for certification after the time of submission of Certification Information to the <u>Certification Administrator</u>.

4.3 Modification of the Test Cases within a Certification Release

The NFC Forum MAY make changes to the Test Cases it includes in a Certification Release during its lifetime, e.g., to address errors or ambiguities.

Such changes MAY give rise to updates to Test Cases documents. (See Section 7.4.)

There will be no impact on existing Certified Implementations.

4.4 ICS and IXIT

An ICS is the Supplier's documented set of claims describing precisely the way in which the product meets the [DEVREQS], including which mandatory and optional features for a selected device Class are supported.

The ICS of a Certified Implementation provides a precise identification of the Certified Implementation for which conformance is claimed by the Supplier. It also includes details of the specific configuration used to validate conformance, so that test results can be reproduced.

An IXIT proforma form provides Suppliers a means to provide extra information for the certification of their implementation, in a standardized manner.

The ICS and IXIT are produced by completing the relevant ICS/IXIT Template for the chosen Certification Release and Test Release, available at https://nfc-forum-itp.com/;

The Test Plan is automatically generated using the ICS/IXIT available from the Test Plan Generator tool at https://nfc-forum-itp.com/

The ICS and IXIT are completed by the Supplier and submitted to the <u>Certification Administrator</u> as part of the registration process for certification. The Supplier SHALL ensure that the information supplied in the ICS and IXIT are correct and complete and accurately reflects the implementation to be certified.

The Certification Administrator will:

- validate the correctness of ICS/IXIT using the TPG tool and create a reference test plan
- compare the Test Plan submitted by the Supplier with the reference test plan generated using the submitted ICS/IXT and verify that they are the same.
- not make the ICS and IXIT for a Certified Implementation publicly available.

New versions of the ICS and IXIT Templates may be published by the NFC Forum at any time. Suppliers SHOULD use the latest version, but a grace period is allowed with the same duration as for updates to Test Cases documents. See Section 7.1.



4.5 NFC Forum Certification of Device Components

This version of the Certification Policy does not include certification of individual Interoperability Modules as defined in [DEVREQS].

In their applications for certification, Suppliers of Certified Implementations are allowed to list the names and version numbers of constituent products that implement part of the NFC Forum functionality. Such constituent product names and version numbers will appear on the Certificate.

The Supplier of such an included product is allowed, subject to the agreement of the Supplier of the Certified Implementation, to state publicly that "This component has been used in an NFC Forum Certified Implementation (e.g., NFC Cert. Nr. xxxxx)".

4.6 Test Track Creation

A Test Track is a suite of tests. A Test Track MAY require conformance and/or interoperability testing. Members can use the "New Test Work Item Request Form" to propose a new testing track for interoperability and/or conformance testing.

Members SHOULD submit a New Test Work Item Request Form to the NFC Forum, who will determine its validity and completeness. The New Test Work Item Request Form MAY be returned, if it is improperly filled out, and/or the NFC Forum MAY provide additional guidance to the submitters (including corrections and updates) before submission for final approval.

A minimum of three member companies (Associate, Principal or Sponsor) in good standing is REQUIRED in order to submit a New Test Work Item Request.

Industry partners can request the addition of a New Test Work Item via the liaison channels.

The NFC Forum, at its sole discretion, reserves the right to accept or refuse applications for new Test Tracks.



5 Obligations of Suppliers of Certified Implementations

5.1 Achieving Certification

5.1.1 Certification Conditions

Certification is awarded to those implementations that have successfully completed the certification process. Certification is effective once the Certification Administrator provides written notice to the Supplier that certification has been achieved. Such an implementation is then considered a Certified Implementation.

Claims of certification MAY only be made in relation to Certified Implementations. Claims of certification MAY NOT be made about implementations that have not completed the certification process or that have been withdrawn from the Certification Program.

As a condition of certification, the Certification Agreement requires the Supplier to:

- Agree to the policies expressed in this document
- Warrant and represent that the manufactured units of the Certified Implementation continue to meet the Applicable Certification Requirements, as stated in the ICS
- Warrant and represent that the manufactured units would pass Certification Testing as it was defined when the implementation was certified.

A buyer therefore can be confident that a Certified Implementation conforms to the NFC Forum Technical Specifications and will continue to do so.

The Supplier SHALL ensure that any instance of a Certified Implementation that is shipped to market meets the Applicable Certification Requirements.

5.2 Maintaining Certification

5.2.1 Certification Conformance

Each Certified Implementation is only REQUIRED to pass Certification Testing as it was defined at the time of the implementation's certification.

The Certification Administrator has the right to audit the Supplier's claims of conformance and adherence to the requirements of this policy. The Certification Administrator MAY at any time request Suppliers of Certified Implementations to provide the Certification Administrator with any information reasonably related to their Certified Implementations' conformance with the Applicable Certification Requirements. If the Supplier fails to provide such information within 60 calendar days of the request, then the Certification Administrator MAY remove the product from the Certification Register, in which case the product ceases to be a Certified Implementation and the Supplier is no longer allowed to make claims of certification related to the product.

Third parties, including buyers and prospective buyers of a Certified Implementation, that have evidence of non-conformance in the Certified Implementation SHOULD report such non-conformance to the Supplier of the Certified Implementation. If the Supplier does not address the non-conformance within 60 calendar days, the issue MAY be raised to the Certification Administrator. Recourse SHALL always be made through normal support channels before escalation to the Certification Administrator.



If a Certified Implementation is found by any means to no longer meet the Applicable Certification Requirements, the Certification Administrator SHALL provide written notification to the Supplier of that Certified Implementation. The Supplier SHALL complete at least one of the following options:

- Within 180 calendar days, rectify the non-conformance (subsequent production) and satisfy the Certification Administrator and/or the notifier of the efficacy of the rectification
- Within 180 calendar days, satisfy the Certification Administrator and/or the notifier that the Certified Implementation is conformant
- Within 180 calendar days, cease making any claim of certification in relation to the Certified Implementation, in which case the product ceases to be a Certified Implementation
- Within 90 calendar days, invoke the appeals process described in Section 11. The Supplier
 will have 90 calendar days from the completion of the appeals process to implement the
 decision by the NFC Forum.

If the Supplier fails to take at least one of the above actions within the timescales described above, the product ceases to be a Certified Implementation.

5.2.2 Use of a Certified Implementation in Secondary Products

A Certified Implementation MAY be integrated into secondary products. For example, a certified reader/writer implementation MAY be integrated into a vending machine or a laptop computer.

The Supplier of a Certified Implementation that MAY be used in this way shall provide its customers with guidance to enable them to maintain conformant behavior of the integrated Certified Implementation.

5.3 Removal of Certification

A product SHALL cease to be a Certified Implementation if any of the following occur:

- The product ceases to meet the Applicable Certification Requirements. See Section 5.2.
- The Supplier requests that the Certification Administrator withdraw the Supplier's product from the Certification Register.
- The Supplier fails to adhere to any of the policies defined within this Certification Policy document.

If a Certified Implementation ceases to be certified, the Supplier MAY no longer make any claim of certification in relation to that product. The Supplier, at the Supplier's own expense, SHALL remove any existing claim of certification from all subsequent production of that product and from all related sales or promotional literature and other materials. The Certification Administrator MAY inspect any such product, literature, or other materials to ensure adequate removal.

Once a product ceases to be a Certified Implementation, any future claim of certification in relation to that product will require re-certification in advance of such claims being made.



6 Certification Listing on NFC Forum webpage

6.1 Certificate Listing

The List of Certifications of Certified Implementations is maintained by the Certification Administrator. In general the List of Certifications is publicly available on the NFC Forum webpage. Each certificate contains at least the following information:

- Device Class
- Manufacturer
- Product name
- Date of Listing of Certification
- Certification Release
- Test Release
- Unique ID (produced by the Certification Administrator (CA))

Once certification has been awarded, the Certification Administrator will add the Certificate to the list on the NFC Forum webpage unless the Supplier requests to keep the certificate confidential as defined in Section 14.3.

6.2 Removal from the Register

Only Certified Implementations are included in the Certification Register. If a product ceases to be certified, the Certification Administrator will remove it from the Certification Register.



7 Testing for Certification

The objective of the NFC Forum Certification Program is to encourage and facilitate the development and market availability of products that meet the requirements defined by the Technical Specification(s). Test Cases and test tools have two essential roles in this context: they help developers and quality assurance teams to ensure that a product meets the requirements contained in Technical Specification(s), and they are used to ensure that only eligible products are certified.

7.1 Testing Documentation: Test Releases and Test Cases documents

The Test Cases documents provide test coverage for the Technical Specifications and MAY also cover Specifications and Standards published by other organizations. They MAY also include Test Specifications from other organizations by reference.

The NFC Forum is responsible for providing timely updates to its Test Cases documents and will publish new Test Releases on a regular basis. Test Releases will contain new documents and/or updates to existing documents, including:

- ICS(s)
- IXIT(s)
- Test Plans
- Test Report Template(s)
- Test Cases
- Test Case Mapping Table(s).

Updates of the above listed documents may also lead to updates of the TPG tool (see Section 1.7).

The Test Cases that SHALL be used in order to perform Certification Testing are under continual development and extension by the NFC Forum. The Test Cases documents that are currently valid for Certification Testing to a Certification Release are identified by a Test Release listed on the Certification Program website.

7.2 Test Tools and Testbeds

7.2.1 Test Tools

Certification Testing SHALL use test tools that have been validated by the NFC Forum. A list of validated test tools is available on the <u>Certification Program website</u>; this list provides for each test tool: the name of the test tool supplier, the type of test tool (e.g., digital protocol, analog, performance, etc.), the test tool name, and the applicable Certification Release.

7.2.2 Testbeds

Testbeds are selected by the NFC Forum for certain interoperability scenarios or programs. A list of the devices comprising a testbed is available on the <u>Certification Program website</u>; this list provides the name of each device manufacturer, the testbed role of each device (e.g. NFC Forum Listener, Poller, etc.), the device name, and the applicable Certification Release.



7.3 Testing of the Product

7.3.1 Testing process

A product that is offered for certification testing will include features as defined in one or more Technical Specifications. The product will belong to one of the device classes as defined in [DEVREQS] and support all mandatory and zero or more optional features for that device class. Each feature will require certification testing (see Appendix B.1Figure 8).

The Supplier starts the preparation of the certification testing by filling out the ICS/IXIT document provided by the <u>Test Plan Generator</u> to indicate the features that the product supports and specific details for the certification testing.

Then Supplier is ready to select an ATL and together they need to develop a Test Plan for the product based on the Test Plan Generator.

The ATL will then enter the Test Plan into one of the validated test tools and execute all Test Cases for the product according to the Test Plan.

After the product has passed all the Test Cases, the ATL will prepare a Summary Test Report, sign it to validate the certification testing and hand the signed Summary Test report over to the Supplier.

In order to receive the formal NFC Forum Certificate (with a Certification-ID) for the product, the Supplier SHALL send a copy of the signed Summary Test Report to the NFC Forum Certification Administrator. The entire list of documents to be submitted in order to retrieve the NFC Forum Certificate is:

- NFC Forum Product Registration Form for Certification Optionally.
- Implementation Conformance Statement, Implementation eXtra Information for Testing from the Test Plan Generator
- Implementation Test Plan from the Test Plan Generator
- ATL signed Summary Test Report
- NFC Forum Certification Inheritance Acknowledgement Form
- NFC Forum Certification Re-brand Acknowledgement Form
- NFC Forum Certification Re-name Acknowledgement Form

This list is also available on the NFC webpage at: https://nfc-forum.org/build/certification

Otherwise in order to receive the formal NFC Forum CCC Digital Key CE Device, Certificate (with a Certification-ID) from an EMVCo – EMV Contactless Level 1 Mobile Product Letter of Approval, the Supplier SHALL send to the Certification Administrator, the entire list of documents listed below:

- NFC Forum Product Registration Form for Certification Optionally
- EMVCo Letter of Approval EMV Contactless Level 1 Mobile Product

The EMVCo Letter of Approval - EMV Contactless Level 1 Mobile Product SHALL contain Type A as Contactless Communication Protocol certified to receive the NFC Forum CCC Digital Key CE certificate.



7.3.2 Test Case Categories List

The Test Case Categories List (TCCL) is a document that is maintained by the NFC Forum and that lists all NFC Forum Test Cases and the associated test category of each Test Case. The TCCL serves as a reference document that can be updated at short notice without any update to the Test Cases documents.

NFC Forum test cases fall under one of six categories:

A – Applicable Test case that SHALL be run for Certification if a relevant feature is

present

V – Validated Test case that has been validated, but that is subject to a grace period

before being promoted to Category A

C – Candidate: Test case approved for validation

D – Demoted Test case demoted from Category A, V, C, or P

P – Partially Demoted Test case that SHALL be run for Certification if a relevant feature is

present, but in which one or more sub-cases has been demoted

I - Informational Test case that does not need to be run for Certification

A Category A test case SHALL be executed for Certification when a relevant feature is present. A Category V test case MAY have an applicable date when it will be promoted to Category A. The NFC Forum MAY add new test cases to Category C no more than once per 180 day period, as illustrated in Figure 4.

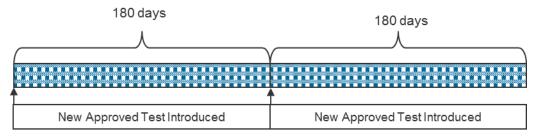


Figure 4: Controlled Introduction of New Test Cases

A Category C test case MAY be upgraded to Category V after full validation.

A Category V test case can be promoted to Category A after a grace period of no fewer than 120 calendar days. This grace period is denoted as test case grace period. Based on the TWG decision, no grace period may apply for a test case verifying a mandatory feature as defined in [DEVREQS].

Figure 5 shows Test Case lifecycle, applicability date, and minimum lifetime under normal circumstances before replacement or the test becomes obsolete.



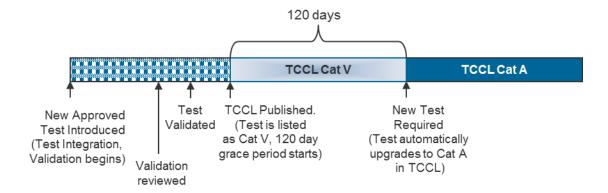


Figure 5: Test Case Introduction Timeline

The NFC Forum MAY decide to downgrade test cases at any time and without notice and make appropriate changes to the TCCL.

Detailed information regarding the TCCL process is contained in [MAINTPROC], which is available to all NFC Forum members.

7.3.3 Test Results

Test results will be provided in a report that meets the requirements defined by the NFC Forum, following the principles of [ISO/IEC_17025]. If a test case cannot be run according to the defined test procedure, a Problem Report (PR) SHOULD be submitted for NCIRP consideration.

7.3.4 Test Case Deficiencies

Published test cases become active once they are incorporated into the TCCL and released into the testing process. In the event that an error in a test case is detected by a vendor, an implementer, or a Test Laboratory, then a Problem Report (that includes the proposed modification to solve the error) SHALL be completed and submitted to the NCIRP (see Section 12).

The Problem Report will be evaluated by the NCIRP and MAY be accepted or rejected. A test case MAY be downgraded to TCCL Category D as a result of the evaluation. If the Problem Report is approved as a Test Case Deficiency (TCD), it is given a unique identifier and it is entered into the TCCL, so that all testing from that point on is performed according to the modified test case as per the approved TCD and Test Cases changes.

7.4 Test Cases Changes

Test Cases are derived from Technical Specifications and are subsidiary to them. When a Technical Specification changes, a Test Cases that refers to it will usually need to change, but when a Test Case changes, the Technical Specifications are not affected.

During the life of a Certification Release, the NFC Forum MAY publish several versions of a Test Cases document.

Suppliers shall always use the latest Test Cases documents when certifying new products. However, a Certification Release Grace Period of up to 18 calendar months will be provided before a Test Cases document is phased out (see Figure 6).



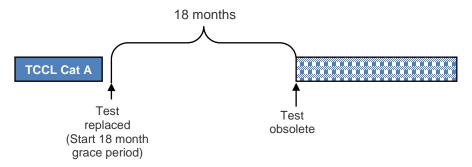


Figure 6: Test Case Replacement Timeline

Derivative and re-branded products MAY continue to use the version of the Test Cases document that applied to the certification of the Certified Implementation from which they are derived. If a Supplier changes a previously Certified Implementation in a way that requires re-testing, it MAY be re-tested using the same or a subsequent version of the Test Cases document.

Products already certified and their derivatives are not affected by subsequent changes to Test Cases and re-testing is NOT REQUIRED when a new version of a Test Cases document is released.



8 Changes to a Certified Implementation

Any change to a Certified Implementation shall be assessed by the Supplier, who SHALL produce a documented evaluation of the impact of the change upon the implementation's NFC Forum Functionality.

If the Supplier considers that a change to the Certified Implementation has a significant risk of causing a change in the conformance of the implementation or of changing the results of any tests, then the Supplier SHALL re-test the implementation to ensure continued compliance with the requirements of the Certification Program. Records of all such testing SHALL be kept by the Supplier in a Compliance Folder, along with the documented impact evaluation reports, and SHALL be made available to the Certification Administrator on request.

The initial certification package SHALL be stored in the Compliance Folder as the baseline for the lifetime of the product.

The Compliance Folder SHALL contain (at least):

- Product name and model number
- Device Class
- Date of Test
- Record of any change to software / hardware and Supplier plan for insuring compliance after change is in effect
- NFC Forum Devices Requirements version
- TCCL Version and Certification Release
- Completed ICS and IXIT based on original certification
- Applicable waivers
- Hardware revision and change history
- Software revision and change history
- OS revision (where applicable)
- Test Pass / Fail results
- Impact evaluation reports

To continue to be considered a Certified Implementation, it SHALL be clear that a maintenance release or other update is included within the scope of the product name and version listed on the Certification Register. The version number listed MAY include a broad description, such as "version 3.2.x" or "version 3.2 and higher".

The Supplier MAY also choose to carry out full Certification Testing and certification for maintenance releases and other updates. But such is NOT REQUIRED unless the update is outside the scope of the information on the Certification Register.



9 Certifying a Product Based on a Previous Certification

9.1 General Policy

Many Certified Implementations will be distributed to end customers under different names or rebranded by OEMs, with or without changes. Many will be incorporated into other products.

For example:

- A Certified Implementation is to be sold in a new territory under a new name (see Section 9.2 on product renaming).
- A mobile handset is re-branded by a network operator (see Section 9.3).
- A certified reader/writer implementation is incorporated into a vending machine or a laptop computer, or new features update a certified product (see Section 9.4 on products integrating certified devices).
- The Operating System of a certified end product is updated including changes to the NFCrelated part. The hardware is identical to the previously certified end product (see Section 9.5)
- A certified implementation is updated to the new Certification Release. The hardware and software of the certified implementation are unchanged (see Section 9.6)

The general principle in these cases is that Certification Testing is NOT REQUIRED to be repeated, but certification MAY still be obtained by inheriting the test results from the certification of the parent Certified Implementation.

The complete NFC Forum Certification Policy applies to re-branded products, including, without limitation, re-branding, maintenance updates, and derivatives.

9.2 Renaming a Product

If a Supplier wants a Certified Implementation to be listed again in the Certification Register, but under a new name, then, if there is no difference other than the name, an additional listing MAY be created at the request of the Supplier and upon payment of the listing fee.

The Certification Register will maintain the information that there is this special relationship between the initial Certified Implementation and the additional (subsidiary) listings.

If the initial Certified Implementation ceases to be certified for any reason, then at the same time all subsidiary listing(s) will also cease to be certified.

All such subsidiary listings SHALL share the same ICS and IXIT, apart from the product name.

9.3 Re-branding a Certified Implementation

The organization that submits the application to certify the re-branded product is responsible for the product meeting the Certification Requirements.



To certify a re-branded product, the Supplier SHALL submit an application for certification that identifies the original Certified Implementation that is being re-branded.

As part of the application for certification, the Supplier will submit a Re-brand Acknowledgement Form, signed by the Supplier of the original Certified Implementation, which confirms both:

- That the re-branded product contains no changes to the Certified Implementation that have a significant risk of changing or materially affecting the compliance of the Certified Implementation to the Applicable Certification Requirements
- That the original test results apply to the re-branded product.

The certification of the re-branded product will then reference the test results supplied with the original certification.

All such re-branded products SHALL share the same ICS and IXIT, apart from their product and organization names.

9.4 Integrating a Certified Implementation into a New Product

A Supplier MAY wish to certify a new product that integrates a certified implementation. The supplier can use the ICS to declare that the test results of certain ICS_IDs can be inherited from a previously certified implementation. Information on which functionalities can be inherited within and across active Certification Releases is available in the TCCL. Inheritance of test results is allowed at a functionality and sub-functionality level. In the TCCL this term is referred to as Test Group (see B.2 Figure 9).

To certify a product containing IUT functionality unchanged and isolated by a feature, the Supplier SHALL submit an application for certification that identifies the original Certified Implementation that has been embedded/incorporated or integrated within it. The Supplier is REQUIRED to do one of the following depending on the risk of compliance being impacted in the new product to be certified:

- The New Product is to be certified under the same Certification Release as the Original Certified Implementation (requires Certification Release is still active at time of submission):
 - No changes to functionality in Test Groups: Submit a full application for certification including a Test Plan referencing the Test Groups to be inherited from the original certified implementation and new test results for the functionality that cannot be inherited.
 - Addition of an optional feature: Submit a full application for certification including a Test Plan referencing the results of Test Groups that can be inherited from the original certified implementation, new test results for the Test Groups that cannot be inherited, and new test results for the added optional feature(s) Test Groups.
- The New Product is to be certified under a newer active Certification Release than the Original Product:
 - Submit a full application for certification including a Test Plan referencing the Test
 Groups to be inherited from the original certified implementation, new test results for the
 functionality that cannot be inherited, and new test results for any added feature(s) that
 are REQUIRED as part of the new Certification Release.



*Not all Test Groups allow inheritance from one product to another where embedding/incorporating or integrating the original certified implementation into a new product MAY impact the implementation as defined by the NFC Forum. For Test Groups where inheritance is not allowed, new test results SHALL be submitted with the new product to be certified.

The following additional rules for inheritance are defined by NFC Forum:

- 1) A Supplier MAY inherit based on the Test Groups as defined in TCCL.
- 2) No Analog and/or Performance testing results can be inherited.
- 3) Capabilities.
 - A device with less capabilities can inherit from a device with more capabilities.
 - A device with more capabilities can only inherit from a device with less capabilities the parts which are shared between both.
 - Example: A Mobile Device can inherit from the Reader Device the reader/writer module but has to additionally test for the card emulation modules.
- 4) A device 2 seeking certification for CR X / TR X.1 can inherit all Test Groups as allowed according to TCCL from a device 1 already certified for CRX / TRX.0.
- 5) A Tag can inherit from the same Tag in different lifecycle State if everything else in the ICS is the same but additional testing for the new lifecycle State may apply.
- 6) The Tag indicated memory size has no impact on certification and may change.

9.5 OS Updates on Certified Implementation

A Supplier MAY wish to maintain certification of a Certified Implementation in case of only the Operating System has been updated ('OS Update').

To allow a simplified certification the conditions are:

- 1. The Device class SHALL be the same as the Certified Implementation with the same implemented functionalities (ICS/IXIT).
- 2. The supplier SHALL provide to the <u>Certification Administrator</u> a written self-assessment fully describing the changes done in the parts of the software related to the Certified Implementation and the Test Group list of the impacted Test Cases (see Appendix B.3 Figure 10).
- 3. The supplier SHALL provide to the <u>Certification Administrator</u> a signed attestation to confirm that the analog implementation has no modifications from the Certified Implementation.
- 4. The supplier SHALL provide an ATL Signed Test Report of the impacted Test Cases performed in an ATL

The following rules for inheritance are defined by NFC Forum:

- 1. Digital testing results MAY be inherited except the impacted test cases.
- 2. Analog testing results MAY be inherited.



If the Certified Implementation is based on a Certified Implementation as described in 9.4, the device MAY inherit digital testing from the based Certified Implementation OS Update and analog testing from the previous Certified Implementation (see appendix B.4 Figure 11).

Inheritance for OS Update is only applicable between devices of the same vendor.

9.6 Certificate update for implementation certified on previous Certification Release

This recertification process for previous Certified Implementations applies only in case the certificate of a previously certified product is updated to a new Certification Release.

To allow a simplified certification the conditions are:

- 1. Device class SHALL fulfill all the requirements of the new CR.
- 2. Device class SHALL be the same with same functionalities (ICS/IXIT).
- 3. SW stack and HW (NFC chip, platform, antenna) SHALL be the same.
- 4. The supplier SHALL provide an ATL Signed Test Report of the impacted Test Groups performed in an ATL

The following rules for inheritance are defined by NFC Forum:

- 1. Digital testing results MAY be inherited under the prerequisite that for Test Groups where inheritance is not allowed.
- 2. Analog testing results MAY be inherited under the prerequisite that the coverage is the same compared to the previous certification Release.

9.7 Administrative Changes

The Supplier is responsible at all times for the accuracy of the information held on the Certification Register in connection with the Supplier's Certified Implementations. Any change with regard to the information of the certified product must be communicated to the Certification Administrator.

For other administrative changes, such as those to the designated certification contacts, the Supplier MAY carry out such changes on the <u>Certification Program website</u> at any time.



10 Test Laboratories

The following NFC Forum Authorized Test Laboratories (ATL) are allowed to perform testing for NFC Forum certification:

- First Party (owned and controlled by the Supplier) or Third Party (owned and controlled by another party) Laboratories accredited to [ISO/IEC_17025].
- First Party (owned and controlled by the Supplier) Laboratories that follow the principles of [ISO/IEC_17025] but are not accredited.

When Certification Testing is performed at a First Party laboratory without [ISO/IEC_17025] accreditation, the Supplier SHALL in each application for certification claim that the Certification Testing followed the principles of [ISO/IEC_17025]. If all Certification Testing for a product is carried out in an [ISO/IEC_17025] Accredited Test Laboratory, the certification listing information will contain the note "Tested in ISO 17025 Accredited Test Laboratory"; otherwise, the certification listing information will not contain any note about [ISO/IEC_17025].

Detailed requirements for ATL, and other relevant information, are contained in [LABREQS], which is available to all NFC Forum members.

The ATL SHALL support certification testing for at least one Active Certification Release.

The ATL SHALL support certification testing for at least one Device Class.

An ATL which is sub-contraction other ATLs to perform parts of the certification testing is denoted as primary ATL. The primary ATL will be responsible for management of 100% of the test cases executed for any certification request. The primary ATL will be responsible for ensuring that 100% of the test cases required for certification have been executed by an ATL. This includes ensuring that all identified subsets have been tested for the superset. Subcontracting may be requested by the primary ATL only, the final summary test report SHALL be consolidated and submitted by the primary ATL.



11 Archiving and De-listing Certifications

All Certified Implementations are considered active by the NFC Forum unless either the Supplier directs otherwise or the Certification is removed (as described in Section 5.3).

Active Certified Implementations are listed on the Certification Program website.

11.1 Archiving Certifications

For the purposes of information management, product listings MAY be periodically archived on the <u>Certification Program website</u>. Archived Certified Implementations are listed on a separate page. Products that are archived remain certified. They MAY be un-archived, in which case they will again be listed with other active Certified Implementations.

11.2 De-listing Certifications

A Certified Implementation MAY be de-listed by the Supplier at any time. A mechanism for the de-listing of Certified Implementations will be made available by the Certification Administrator.



12 Problem Reports (PR) and Issue Resolution

Any applicant for certification MAY disagree with the reported result of a test, or the Authorized Test Laboratory MAY report an issue for clarification about the Technical Specifications, the Devices Requirements [DEVREQS], the Test Cases, or the certification process and policy. In such case a Problem Report (PR) is completed and submitted to the NFC Forum Certification Issue Resolution Panel (NCIRP). The NCIRP is responsible for bringing the issue to resolution.

Further information regarding the NCIRP process is contained in [NCIRP], which is available to all NFC Forum members.



13 Appeals

Suppliers MAY appeal decisions made by the NFC Forum or the Certification Administrator. The occasions that MAY give rise to an appeal include, but are not limited to, the following:

- The Supplier disagrees with the resolution of a Problem Report.
- The Supplier disagrees with the Certification Administrator's grounds for denying the award of certification.
- The Supplier of a Certified Implementation disagrees with a formal notification for the need to rectify a non-conformance.

Appeal requests SHOULD be made to the Certification Administrator. A mechanism for the appeal request will be made available by the Certification Administrator.



14 Confidentiality

14.1 Confidentiality During Certification

All information relating to a Supplier and the product to be certified will be held confidential during the certification process (prior to the award of certification).

Test results will always be confidential. Information regarding the results of testing SHALL NOT be disclosed in any publicly available document or to any third party by the Certification Administrator, the Supplier, Authorized Test Laboratories, or any third-party acting on the Supplier's behalf.

In addition, the Certification Administrator will always hold confidential any information regarding unsuccessful requests for certification.

14.2 Disclosure of Certification Information

Certification information consists of the fact that certification was achieved, the description of the Certified Implementation (e.g., manufacturer and model), and the date of publication of the certification. Any claims of conformance or information related to the certification process MAY only be made public after the Certification Administrator has notified the Supplier in writing that the product has passed the certification process.

If the Supplier did not request to keep the certification confidential, then the Certification Administrator will make the certification of the certified product publicly available on the NFC Forum webpage.

Public Information Non- Public Information Manufacturer S/W version Model H/W version Version Number (OPTIONAL) Date of Certification Date of Listing of Certification **Summary Test Report** Certification Release **ICS** Test Release Implementation Test Plan Unique ID (Produced by the CA) Test Case Category List (TCCL) Version Flag indicating if testing was performed in an Supplier contact information (Email, Generic ISO 17025 Accredited test lab Support Email, or Web URL) Device Class

Table 1: Certification Information



14.3 Optional Confidential Treatment of Certification Information

On occasion a Supplier will apply for and achieve certification but decide to not disclose this information. The Supplier MAY request to keep the certification information confidential for an unlimited time period. In any case the Supplier will receive the Certificate.

During this time period the Supplier MAY NOT make any public claim that the product is certified by the NFC Forum without first informing the <u>Certification Administrator</u> that the confidential period has expired.

The certification information will cease to be held confidential upon the earlier of two events: notice by the Supplier that the confidential period has expired, or the Supplier has made any public claim that the product is certified by the NFC Forum. As a consequence the Certification Administrator will publish the Certificate on the NFC Forum Certification Program Webpage.

Certified products that are not disclosed on the NFC Forum web page will however still be considered in the statistics of certified devices.

Any certification related information is confidential to the Certification Administrator during the time period the certification is confidential. The Certification Administrator will only disclose anonymized information NFC Forum internally.



A. Examples for Certification Grace Periods Handling (Informative)

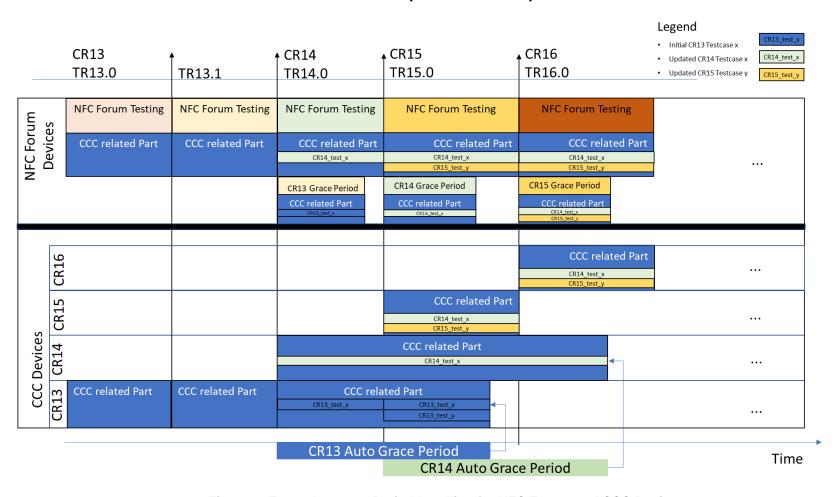


Figure 7: Example: Grace Period handling for NFC Forum and CCC Devices



Examples for Certification Grace Periods Handling (Informative)

This section provides examples how NFC Forum handles the Certification and Automotive Certification Grace Periods. Below is a description of Figure 7 listing examples of test case changes resulting in new Certification Releases. Depending on the change performed the Automotive CR Grace Period, the Certification Grace Period or both are applied.

- Starting with CR13(TR13.0) NFC Forum provides testing for
 - NFC Forum devices
 - o **CCC devices** (CCC related part of testing only)
- A potential TR13.1 as part of CR13 does not trigger any CR Grace period
 - o No changes to CCC related part possible!
- Certification Release CR14(TR14.0) triggers Auto CR Grace Period
 - Assume a Test case for a functionality in scope of CCC requires an update ("CR14 test x")
 - NFC Forum devices are free to choose to certify against
 - CR13(TR13.1) for CR13 Grace Period starting at the release of CR14(TR14.0)
 - CR14(TR14.0)
 - CCC devices are free to choose to certify against
 - CR13(TR13.1) for CR13 Auto Grace Period starting at the release of CR14(TR14.0)
 - CR14(TR14.0)
- Certification Release CR15(TR15.0) triggers Auto CR Grace Period
 - Assume a Test case for a functionality in scope of CCC requires an update ("CR15_test_y")
 - NFC Forum devices are free to choose to certify against
 - CR14(TR14.0) for CR14 Grace Period starting at the release of CR15(TR15.0)
 - CR15(TR15.0)
 - CCC devices are free to choose to certify against
 - CR13(TR13.1) if CR13 Auto CR Grace Period has not yet expired
 - CR14(TR14.0) for CR14 Auto CR Grace Period starting at the release of CR15(TR15.0)
 - CR15(TR15.0)
- Certification Release CR16(TR16.0) does not trigger Auto CR Grace Period
 - Reason: NFC Forum adds new features into the scope of certification with no changes in CCC related part.
 - o NFC Forum devices are free to choose to certify against



Examples for Certification Grace Periods Handling (Informative)

- CR15(TR15.0) for CR15 Grace Period starting at the release of CR16(TR16.0)
- CR16(TR16.0)
- o CCC devices are free to choose to certify against
 - CR14(TR14.0) if CR14 Auto CR Grace Period has not yet expired
 - CR16(TR16.0), since CR15 and CR16 are identical, CR15 will not be continued.



B. Scenario of certification

B.1 Implementation first certification

A new implementation A becomes certified after its Digital and/or Analog implementation is fully tested

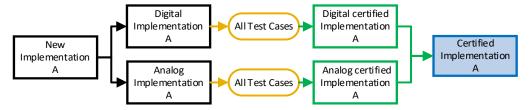


Figure 8: first certification of an Implementation

B.2 New Implementation Inheritance certification

A new implementation B becomes certified after its Digital Implementation inherited from another Implementation A is tested for non-inheritance part and its Analog implementation is fully tested

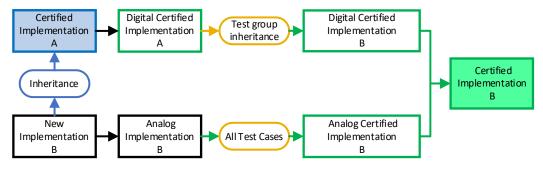


Figure 9: New Implementation certification with inheritance

B.3 Certified Implementation OS Update certification based on same Implementation

A certified implementation B is OS update certified after its Digital OS update part is retested for all impacted test cases. Its Analog part remains certified on basis of the attestation that there is no analog change.

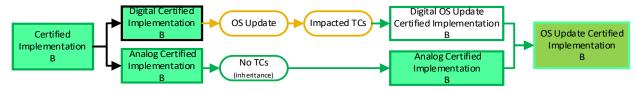


Figure 10: Certified Implementation OS Update certification



B.4 Certified Implementation OS Update certification based on inherited Implementation OS Update certified

A certified implementation B^* has inherited of a certified Implementation A^* . This certified implementation B^* MAY be OS update certified by fully inheriting an OS Updated Digital Implementation A from implementation A^*

. Its Analog part remains certified on basis of the attestation that there is no analog change.

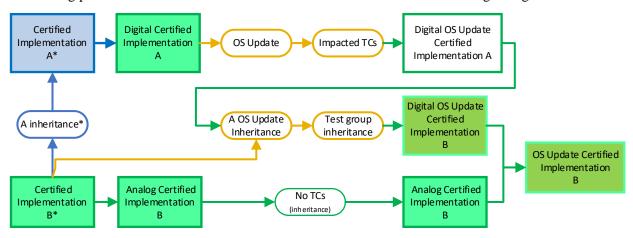


Figure 11: Certified Implementation OS Update certification with Digital inheritance



C. Revision History

Table 2 outlines the revision history of Certification Policy.

Table 2: Revision History

Document Name	Revision and Release Date	Status	Change Notice	Supersedes
Certification Policy	Version 1.2, September 2010	Public version	Changes for public release	Version 1.1c
Certification Policy	Version 1.2 November 2010	Public version	Minor updates to References	Version 1.2, September 2010
Certification Policy	Version 1.2 July 2011	Public version	Modifications for consistency with implementation	Version 1.2 November 2010
Certification Policy	Version 1.3 June 2012	Public version	Various policy and editorial changes	Version 1.2 July 2011
Certification Policy	Version 1.4, May 9, 2014	Public version	Modifications to incorporate Certification and Test Releases	Version 1.3, June 2012
Certification Policy	Version 1.5, October 21, 2015	Public version	Includes changes for allowing Testing Tracks	Version 1.4, May 2014
Certification Policy	Version 1.5, June 16, 2016	Public version	Adds support for interoperability testing	Version 1.5, October 2015
Certification Policy	Version 1.5.01, June 20, 2017	Public version	Updated Section 1.2.1 and deleted Section 1.7 for implementation of CC glossary. Removed broken links	Version 1.5, June 16, 2016
Certification Policy	Version 1.5.02, February 27, 2018	Public version	Updated Section 11 for ATL support responsibility under active certification release and device class and subcontracting process and the responsibility of the primary ATL Lab, Updated section 1.1, since Tags can now be certified.	Version 1.5.01, June 20, 2017
Certification Policy	Version 2.0.00, April 9, 2018	Final	Updated Section 10.4 to reflect that the ICS can be used to define that test result can be inherited from previously certified implementations. Graphs in chapter 3.1 and 3.3.	Version 1.5.02, February 27, 2018
Certification Policy	Version 2.0.01, September, 2019	Final	Clarifications that CMLA must be signed before a certification.	Version 2.0.00, April 9, 2018
Certification Policy	Version 2.1.00, Nov, 2020	Final	Removal of CMLA	Version 2.0.01, September, 2019
Certification Policy	Version 3.0.00, September, 2021	Final	Certification can be declared as confidential. Automotive grace period addition Editorial updates Updates to reflect the current certification process Addition of Appendix A, grace period examples Certification possible for NON-members	Version 2.1.00, Nov, 2020
Certification Policy	Version 3.0.01, February, 2023	Final	Add Test Plan Generator Reference in 7.3.1 Testing Processing Updates NFC Forum website links Update TPG access authorization	Version 3.0.00, September, 2021



Revision History

Certification Policy	Version 3.1.00, October, 2024	Final	Add certified Implementations certification inheritance cases	Version 3.0.01, September, 2021
Certification Policy	Version 3.2.00, xxx, 202x	Final	Add EMVCo L1 Mobile Product CCC Digital Key CE certification recognition	Version 3.1.00, October, 2024