QuickTrack
Qualified Solution Policy

Version 1.1

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Document revision history

Version	Date	Remarks
1.0	May 18, 2021	Initial release
1.1	June 20, 2022	Added Section 2 providing Solution Provider overview and listing requirements for a member company to qualify as a Solution Provider

Table of contents

List of tables

1   Overview

This document defines the policy for creating, maintaining, and using a Qualified Solution. In addition, it contains obligations for maintaining the quality of the Wi-Fi CERTIFIED™ brand for end products using a Qualified Solution.

QuickTrack is a certification path that brings the benefits of Wi-Fi® product quality and interoperability to more Wi-Fi products by making certification more accessible, affordable, and beneficial for industry. More information about QuickTrack can be found at https://www.wi-fi.org/certification.

1.1   Resources and References

[1] Acknowledgement of Certification Terms and Conditions: https://www.wi-fi.org/who-we-are/governing-documents

[2] Extensions Policy: https://www.wi-fi.org/who-we-are/governing-documents

[3] Certification Overview Process and Other Governing Documents: https://www.wi-fi.org/who-we-are/governing-documents

[4] Product Access Policy: https://www.wi-fi.org/who-we-are/governing-documents

[5] Derivative Certification Policy: https://www.wi-fi.org/who-we-are/governing-documents

1.2   Definitions

Table 1 lists the terms, acronyms, and definitions used throughout this document.

Table 1.   Definitions

Term (Acronym)	Definition
application	The information provided by a member for both Qualified Solution and Wi-Fi CERTIFIED candidates. This includes new products and variants.
Affiliate or Affiliates	An entity that directly or indirectly controls another entity via beneficial ownership of more than fifty percent (50%) of the voting power or equity in another entity.
Authorized participant	Members that may seek certification testing at Wi-Fi Alliance authorized laboratories.
Authorized Test Laboratory (ATL)	Independent testing laboratories authorized by Wi-Fi Alliance to perform core and QuickTrack testing.
Certified product	A product that has undergone the prerequisite testing and verification that has been issued a Wi-Fi Alliance Wi-Fi CERTIFIED certificate.
Certifications	The set of operating procedures, policies, roles, and responsibilities that make up the Wi-Fi Alliance certification operation.
Certification System	An online tool used to track all certification related activities as well as maintain all completed certification records.
Certification Identifier (CID)	A unique tracking number assigned to a product for record-keeping of its status as a Qualified Solution and/or certified product. A product will only have one CID even though it may be qualified or certified at different times for different certifications.
core testing	Full suite of interoperability and conformance testing necessary for Qualified Solutions or Wi-Fi CERTIFIED products using FlexTrack.
Derivative	A new product that is replicated from a Source Product and has no changes to the Wi-Fi component combination or certifications.
Device Under Test (DUT)	A product that is undergoing Wi-Fi Alliance testing.
DUT Control App	Control software that is integrated into the DUT to allow testing with QuickTrack or FlexTrack.

Term (Acronym)	Definition
end product	Products or devices that contain Wi-Fi functionality that are typically sold to consumers, integrators, service providers, and network deployers.
end product developer	A company that develops and certifies end products.
end product variant	A new version of a Wi-Fi CERTIFIED end product that includes changes to the Wi-Fi component combination and/or certifications
FlexTrack	Interoperability and conformance methodology to test and certify member's end products using Wi-Fi Alliance test plans and test beds.
FlexTrack test tools	A combination of the Wi-Fi Alliance test bed hardware and Wi-Fi Test Suite testing software based on Wi-Fi Alliance test plans. Used to conduct core testing for each certification.
QuickTrack	Wi-Fi Alliance methodology to test and certify end products when developed based on a Qualified Solution.
QuickTrack Test Tool	The combination of the QuickTrack Test Tool software and the hardware platform.
QuickTrack Test Tool platform	A hardware testing platform that is used to run the QuickTrack Test Tool software, such as a laptop.
QuickTrack Test Tool software	Conformance testing software provided by Wi-Fi Alliance for use on the QuickTrack Test Tool platform.
Member	Members are companies that work within Wi-Fi Alliance and meet such requirements as conforming to Membership Agreement and Intellectual Property Rights Policy, paying the annual Membership Fee, and remaining in good standing with Wi-Fi Alliance for the period of their membership.
Member Conformance Test Laboratory (MCTL)	Member's internal laboratory that uses QuickTrack Test Tool to test their own end product. This is typically an end product developer's laboratory.
Measurement package	Output from the QuickTrack Test Tool software that contains test measurements.
Qualified Solution	A product consisting of a collection of qualified components that serves as the basis for creating and certifying other products through the QuickTrack methodology and may also be certified itself.
Qualified Solution variant	A new version of a Qualified Solution that includes a Solution Provider's change to the Wi-Fi component combination and/or certifications.
Solution Provider	A company that has demonstrated the ability to produce and maintain a Qualified Solution.
Solution Test Laboratory (STL)	A Solution Provider that has been accredited by Wi-Fi Alliance to test and validate Qualified Solution candidates and Wi-Fi CERTIFIED products.
Source Product	A product that has undergone prerequisite testing that may be used as the basis of developing another product.
variant	A new version of a Qualified Solution or previously Wi-Fi CERTIFIED product that includes a change to the Wi-Fi component combination and/or Wi-Fi capabilities.
Wi-Fi capabilities	A set of features and functionality implemented in a product that are covered by Wi-Fi Alliance certifications.
Wi-Fi Component Combination (Wi-Fi CC)	A unique combination of hardware and software that provides the Wi-Fi capabilities within a product.
Wi-Fi Test Suite	Integrated software platform that automates interoperability and conformance testing according to Wi-Fi Alliance certification test plans.

1.3   Terminology: Use of Shall, Should, and May

The words "shall", "should", and "may" are used throughout this document to convey specific meaning.

1.3.1   Shall

"Shall" is used to convey emphasis on an absolute requirement.

1.3.2 Should

"Should" is used to convey a recommendation or guideline that represents the best practice implementation of the policy.

1.3.3 May

"May" is used to convey a possible action our outcome, for which there is no specific recommendation or restriction.

2   Solution Provider overview

Wi-Fi Alliance® designates a company as a Solution Provider after the prospective Solution Provider has demonstrated its ability to conduct the necessary core testing and to create Qualified Solutions for their own use or use by their customers to accelerate the certification process.

Solution Provider requirements:

1. A company shall be either

    a. A chipset or module vendor, that wants to create their own Qualified Solution, or

    b. An end product developer, that wants to create their own Qualified Solution by modifying and/or adding features to a solution provided by a chipset or a module vendor

2. A company should have their own resources, such as those identified below, demonstrating their expertise with Wi-Fi specifications, test plans, and automation tools:

    a. Wi-Fi standards team

    b. Wi-Fi development team

    c. Wi-Fi QA team

3. A company should, as part of their product development and QA cycle, utilize internally developed test suites for product validation including Wi-Fi functional, performance, and system testing

4. A company should utilize in-house Wi-Fi Alliance certification test beds to validate Qualified Solution implementation

5. A company shall demonstrate experience with the certification process, including identifying Wi-Fi CERTIFIED requirements, Wi-Fi Alliance certification policies, and Wi-Fi Alliance certification system (for example, product certification application creation, results submission etc.)

3 Qualified Solution overview

The Qualified Solution is foundational to QuickTrack, a path for achieving Wi-Fi CERTIFIED end products. QuickTrack is tailored to products based on Qualified Solutions that have already completed Wi-Fi core testing. QuickTrack allows targeted modifications to Wi-Fi components and functionality. QuickTrack testing may be completed at an Authorized Test Laboratory (ATL), a Solution Test Laboratory (STL), or a Member Conformance Test Laboratory (MCTL).

A device identified by the Solution Provider as a Qualified Solution candidate undergoes core testing to ensure end products based on the Qualified Solution maintain Wi-Fi CERTIFIED assurances. Once the Qualified Solution candidate has been verified to have successfully completed testing, Wi-Fi Alliance designates it as a Qualified Solution.

A member company, such as an end product developer, can then use a Qualified Solution to certify their product using QuickTrack. Once the QuickTrack test results have been verified, the product is Wi-Fi CERTIFIED.

A Solution Provider creates a Qualified Solution by determining the Wi-Fi Component Combination (Wi-Fi CC) and Wi-Fi capabilities that the product contains.

Identifying a product's Wi-Fi CC is fundamental to delivering a Qualified Solution and an end product achieving Wi-Fi CERTIFIED status based on a Qualified Solution. The Wi-Fi CC is a unique combination of hardware and software that provides the Wi-Fi capabilities within a product. The Wi-Fi CC components tracked by Wi-Fi Alliance consist of:

- Chipset
- RF architecture
- Firmware
- Driver
- Operating System (OS)
- Physical interface
- RF components
- Antenna

A Solution Provider may have additional components that make up the Qualified Solution, but Wi-Fi Alliance will only record the Wi-Fi components listed above in the Certification System as a Wi-Fi CC.

Wi-Fi Alliance records all changes to Qualified Solutions and Wi-Fi CERTIFIED end products as variants in the Certification System. Solution Providers can use Qualified Solution variants for their own products and/or provide their customers a choice between different Wi-Fi components or Wi-Fi capabilities from the same Qualified Solution.

An end product developer may use any Qualified Solution variant available in the Certification System. If an end product developer needs to make a change to their Wi-Fi CERTIFIED end product, they may create an end product variant.

4   Creating a Qualified Solution

A Qualified Solution shall only be created by a Solution Provider.

A Solution Provider shall use a convention for component names in a Wi-Fi CC that allows the end product developer to unambiguously identify the Qualified Solution used in the end product developer's product. This Wi-Fi CC information shall match the information that is stored in the Certification System for each Qualified Solution.

All Qualified Solutions that are available for use by others shall integrate the DUT Control App.

Wi-Fi Alliance shall assign each Qualified Solution a unique certification identifier (CID) in the Certification System.

4.1   Qualified Solution testing

A Qualified Solution candidate shall pass all core testing.

To avoid the likelihood of an end product based on a Qualified Solution encountering issues with their QuickTrack testing, a Qualified Solution candidate shall pass all QuickTrack testing.

A Solution Provider shall submit a Qualified Solution candidate for testing in either their own authorized STL or any ATL.

A Solution Provider may test a Qualified Solution candidate for any available certification.

4.2   Solution Provider post-designation obligations

To maintain Wi-Fi CERTIFIED assurances, Solution Providers shall meet the following post-designation obligations:

- A Solution Provider shall be accountable for addressing reported interoperability claims for both Qualified Solutions and Wi-Fi CERTIFIED end products based on their Qualified Solution
- A Solution Provider shall ensure their Qualified Solution meets Wi-Fi CERTIFIED requirements for as long as it is available for use
- Qualified Solutions are subject to the Acknowledgement of Certification Terms and Conditions [1] document whereas additional verification and retesting may be required
- Qualified Solutions are subject to the Product Access Policy [4] to facilitate resolution of reported interoperability problems
- If Wi-Fi Alliance is not satisfied with resolution of reported interoperability claims per the Acknowledgement of Certification Terms and Conditions [1] then the Qualified Solution shall be revoked
- If there are multiple occurrences of confirmed or unresolved interoperability claims against a Solution Provider's Qualified Solutions, a Solution Provider's ability to create Qualified Solutions may be revoked
- If information provided in a Qualified Solution application is found to be materially inaccurate, the associated Qualified Solution and end product certifications shall be revoked
- A Solution Provider shall be responsible for responding to Wi-Fi Alliance requests for information as may be necessary

5 Using a Qualified Solution to certify an end product

To certify a product based on a Qualified Solution, an end product developer selects a Qualified Solution that has been made available by the Solution Provider, that serves as the basis for their product's Wi-Fi CC and Wi-Fi capabilities.

An end product developer shall reference the Wi-Fi CC for each product they certify utilizing a Qualified Solution.

The end product developer shall use a convention that clearly identifies the component names in a Wi-Fi CC that are in common with the Qualified Solution. The end product developer shall maintain the Solution Provider's convention when no component modifications are made.

The end product developer shall identify any changes to the Wi-Fi CC that are needed for the end product. Any changes to a Qualified Solution by an end product developer are subject to further end product testing, as referenced in Section 5.1.

If the Qualified Solution is Wi-Fi CERTIFIED and no changes to the Wi-Fi CC and Wi-Fi capabilities are required, then the end product developer may create a Derivative without further testing. A Qualified Solution that is not Wi-Fi CERTIFIED shall not be used to create a Derivative. For more information about Derivative certification, please refer to the Derivative Certification Policy [5].

5.1 End product testing

If changes to the Qualified Solution's Wi-Fi CC or Wi-Fi capabilities are required in the end product, then the end product shall undergo testing to ensure Wi-Fi CERTIFIED assurances are maintained.

An end product developer shall use QuickTrack to test changes to any of the following Qualified Solution components:

- Operating System
- Physical interface
- RF components
- Antenna

Changes to the following components of the Wi-Fi CC may require core testing. Wi-Fi Alliance may allow an end product developer to use QuickTrack to test changes to these components as long as Wi-Fi CERTIFIED assurances are met. It is the responsibility of both the Solution Provider and the end product developer to maintain Wi-Fi CERTIFIED assurances when making changes to these components:

- Firmware
- Driver

If changes in an end product based on a Qualified Solution do not meet Wi-Fi CERTIFIED assurances, then a Solution Provider may conduct core testing and create a Qualified Solution variant or new Qualified Solution for use by the end product developer. Alternatively, the end product developer may request testing of the product by an ATL.

An end product may undergo QuickTrack testing at either an MCTL, STL, or ATL.

5.2 End product developer's post Wi-Fi CERTIFIED issuance obligations

The end product developer shall meet the following obligations:

- The end product developer shall be accountable for addressing reported interoperability problems including additional verification testing in accordance with the Acknowledgement of Certification Terms and Conditions [1]
- If information provided in the end product developer's certification application(s) is found to be materially inaccurate, the associated certifications shall be revoked
- An end product is subject to the Product Access Policy [4] to facilitate resolution of reported interoperability problems
- The end product developer shall work with the Solution Provider and Wi-Fi Alliance to resolve reported interoperability problems
- If Wi-Fi Alliance is not satisfied with resolution of identified interoperability problems by the end product developer and the Solution Provider per the Acknowledgement of Certification Terms and Conditions [1], then the

associated certifications shall be revoked and the Qualified Solution may be revoked, preventing its use in future end products

- An end product developer and Solution Provider shall be responsible for responding to Wi-Fi Alliance requests for information as may be necessary

6   Variants

A variant is a version of a single product, either a Qualified Solution or a Wi-Fi CERTIFIED end product, where one or more components of the Wi-Fi CC and/or Wi-Fi capabilities differ.

A variant shall meet the same test requirements of a Wi-Fi CERTIFIED product. All variant test results are subject to Wi-Fi Alliance verification.

QuickTrack shall be used to test and verify changes to any of the following components of the Wi-Fi CC:

- Operating System
- Physical interface
- RF components
- Antenna

Changes to the following components of the Wi-Fi CC may require core testing. Wi-Fi Alliance may allow the use of QuickTrack to test changes to these components as long as Wi-Fi CERTIFIED assurances are met. It is the responsibility of both the Solution Provider and the end product developer to maintain Wi-Fi CERTIFIED assurances when making changes to these components:

- Firmware
- Driver

6.1   Prohibited variants

A Solution Provider or end product developer shall not modify the following components of a Wi-Fi CC in a variant:

- Chipset
- RF architecture (including spatial streams and the number of radios)

Changes to these components require creation of a new product, i.e., new Qualified Solution or new Wi-Fi CERTIFIED end product.

6.2   Obligations for variants

All obligations described in Section 4.2 and Section 5.2 apply to variants.

6.3   Qualified Solution variants

Only a Solution Provider may create variants of their Qualified Solutions.

The Solution Provider shall identify all changes to the Wi-Fi CC or Wi-Fi capabilities, in the Qualified Solution as a variant at the time the variant application is submitted.

A Solution Provider may selectively designate which Qualified Solution variants are available at any time for use by an end product developer to allow management of their Qualified Solution lifecycle.

The Solution Provider shall use a convention for identifying a Qualified Solution variant and its Wi-Fi components that provides the end product developer with the means to clearly identify which variant to use in an end product.

6.3.1   Qualified Solution variant testing

A Solution Provider determines the type of testing needed to maintain Wi-Fi CERTIFIED assurances. This may include a combination of core testing and QuickTrack testing.

A Solution Provider shall conduct testing of a Qualified Solution variant at either a Solution Provider's STL or at an ATL.

6.4 End product variants

Only an end product developer may create variants of their Wi-Fi CERTIFIED end product.

An end product developer shall identify all changes to the Wi-Fi CC or Wi-Fi capabilities in the Wi-Fi CERTIFIED end product variant at the time the variant application is submitted.

The end product developer shall use a convention for identifying the components within the end product variant's Wi-Fi CC.

6.4.1 End product variant testing

An end product developer determines the type of testing needed to maintain Wi-Fi CERTIFIED assurances. This may include a combination of core testing and QuickTrack testing.

An end product variant shall undergo QuickTrack testing at either an MCTL or at an ATL.

If an end product variant based on a Qualified Solution requires core testing, then a Solution Provider may conduct the testing and create a Qualified Solution variant or new Qualified Solution for use by the end product developer. Alternatively, the end product developer may request core testing of the product by an ATL.