

AMWA Certification Policy

Purpose

The purpose of the AMWA certification¹ program is quality assurance for AMWA Specifications and partner programs. Quality assurance is defined as: *a program for the systematic monitoring and evaluation of the various aspects of a project, service, or facility to ensure that standards of quality are being met*². The Business Sponsor of an AMWA project is the person who ultimately determines the standard of quality assurance for any AMWA specification.

The overall goal of the program is to enhance interoperability between different implementations of AMWA Specifications. The key characteristics of the program are:

- Quality – a reasonable expectation that certified products will interoperate to a known degree
- Reliability – consistent outcomes based on a defined process that can be repeated
- Impartiality – fair and unbiased for all stake-holders

IMPORTANT: The AMWA is the caretaker of the certification process but not a service provider that performs analysis or Quality Assurance for an Implementer.

The AMWA's purpose regarding certification is:

- To act as the publisher of all specification and certification-related information
- To be the place for Users to provide feedback and report problems
- To update the certification process to reflect changes as required
- To provide for the overall governance of AMWA certifications, and to encourage a Business Owner to update its Minimum Quality Assurance Practices should user feedback indicate that this is necessary
- To close the quality assurance loop between Users, the Business Owner, and Implementers

The program shall make available artifacts that can be used by implementers to improve the quality of their products without intervention from the AMWA. The program shall also provide a mechanism for submitting comments and feedback.

¹ Certify – to say officially that something or someone has met certain standards or requirements (www.merriam-webster.com)

² www.merriam-webster.com

The certification process is a public verification that a particular implementation meets pre-agreed standards of quality.

To be clear, the AMWA certification process is not a place for manufacturers to get free QA for their product development teams.

Guidance regarding rigor

Certification process must be rigorous enough to meet goals above, but not more so.

How is certification achieved?

Certification of an implementation is based upon meeting the Minimum Quality Assurance Practices, and evidence of this may be based on an implementer providing:

- Evidence of conformance³ to specific AMWA specifications
- Evidence of technical validation, e.g. analyzer results, manual verification
- Evidence of successful interoperation
- Verification that the implementer agrees to follow the terms and processes of the AMWA

Ultimately, the certification is issued based upon meeting the Minimum Quality Assurance Practices established by the Business Owner of the related AMWA Specification. Ideally, the issuing of a certification could be automated. But in any case, the inspection and verification of the artifacts submitted as the result of a certification request should require minimal effort on the part of the AMWA Certification Administration . By minimal effort, we anticipate actions such as inspection and verification of the submission, but not analysis.

Basis for certification

The basis for certification should be the AMWA specification or other work product and co-developed testing criteria. Ideally, the specification *is* the testing criteria. The development of AMWA specifications should follow best practices in producing outputs that can be used to drive modern test tools. Specifications should be written using a structure, and following a pattern that achieves the outcome described in this section. Note that best practices may change over time.

Evolution

It is recognized that specifications, and also the desired standard of quality may evolve over time. The AMWA certification process is designed to accommodate this evolution.

³ action in accordance with some specified standard or authority

End User Reporting

This process shall incorporate a mechanism for end users to report on Quality Assurance issues. AMWA shall provide a way for this feedback to be exposed to Implementers, Business Owners and the AMWA Certification Authority.

Role of industry vs. role of the AMWA

The AMWA shall design the program in such a way as to allow the development of commercial business opportunities for members. However, it shall not in any way support the creation of a monopoly market for any one member.

Success criteria

The AMWA certification project will be judged to be a success if the following criteria are met:

- A certification program is commissioned
- Members seek to certify implementations of AMWA specifications
- Members provide feedback on AMWA certifications
- A survey of business sponsors yields an opinion that the certification program is meeting the business sponsors objectives
- Non-members join the AMWA in response to our instituting a certification program
- The certification program is at least revenue-neutral
- Interoperability of certified products is found to have improved

Resources needed

The certification program must be supported with commitments of resources commensurate with the estimated level of effort required to achieve the objectives.

Operating model

The certification process is summarized in Figure 1. which outlines the intended lifetime of a certified AMWA Specification implementation, from specification development to certification to the user reliably using the certified product.

Roles

Several roles are defined in this policy:

- Business Owner – the “owner” of an AMWA specification, generally an end user who serves as the customer for the development and maintenance of a particular AMWA Specification. A Business Owner may also be an organization that has partnered with the AMWA. However, in the case of an organization, an individual within that organization must be identified to serve as a single point of contact for certification issues.

- User – someone using an implementation of an AMWA Specification. Users make use of certified product and contribute requirements to the development of AMWA-sponsored specifications (new specifications and feedback for maintenance of existing specifications). Issues arising from product use can inform development and update of the reference implementation and QA resources.
- Implementer – Someone (typically a vendor, integrator, or software developer within an end-user organization), who develops an application which makes use of an AMWA specification and who may contribute to specification development. Implementers conduct the specified Minimum QA Practices as part of application development quality assurance. Importantly, this is done without any involvement of the AMWA Certification Administration. Following the creation of an implementation, an Implementer submits a certification request to the AMWA sponsored Certification Administration. Once the certification request has been accepted, an Implementer may use the certification as part of product marketing. The Implementer may also be granted the right to use certain trademarks or other marketing products, or make certain claims that have been heretofore restricted by the AMWA or by its partner organizations.
- Certification Administrator – someone operating under the direction of the AMWA who accepts and reviews artifacts that are submitted as part of the AMWA certification process. This person also works with the Business Owner to ensure that the Minimum Quality Assurance Practices result in a simple inspection for the Certification Administration. They also encourage the Business Owner to review and update the QA practices when reports from users are received.

Note: For FIMS projects, the FIMS Business Board acts as the Business Owner and the FIMS Technical Board acts as an Implementer. For AS-11 DPP, the Digital Production Partnership acts as the Business Owner.

AMWA sponsored specification development – the AMWA specification development process consists of requirements analysis, followed by specification development, provision of a reference implementation and review/acceptance by the membership.

Business Owner Sponsored Minimum Quality Assurance Practices – the understanding of requirements of the Business Owner informs the expectations of the level of quality assurance. A reference implementation of the specification is developed, together with accompanying QA resources as appropriate for the type of specification and the required level of assurance. Furthermore, the Business Owner determines and documents the Minimum Quality Assurance Practices for products seeking certification.

Certification Administration – a standing function operated by the AMWA, which provides the certification service to Implementers. When a certification request is received from an Implementer and the certification policy agreement has been executed, the Certification Administration checks that the required QA practices have been conducted properly and with satisfactory results. Where the criteria are met satisfactorily, the Certification Administration issues an acceptance of the certification request.

Validity of Certification

There are some circumstances when the validity of a certificate may be called into question. Guidance is provided in this section on how to deal with these situations.

- Should an Implementer be found to have falsified the artifacts that have been presented to the Certification Administration, then the AMWA may cancel any certifications that have been issued to this Implementer based upon these artifacts. The AMWA shall not refund any fees associated with this certification. The AMWA Board may also choose to cancel the Implementer's membership in the organization without a refund of membership fees.
- Should the Certification Administration make a mistake and erroneously issue a certificate on the basis of artifacts that do not meet the minimum Quality Assurance criteria established by the Business Owner, then the AMWA shall contact the Implementer requesting that appropriate artifacts be submitted. No additional fees shall be charged for a re-evaluation of these new artifacts. If the Implementer refuses to provide the appropriate artifacts, then the Certification Administrator shall recommend de-certification of the Implementation to the AMWA Board who shall make the final decision on any such de-certification.

Financials

The certification program must have the following financial characteristics:

- Must be self-funding (or funded by the Business Owner)
- Must be scalable to accommodate the fact that different specifications are likely to have different uptake
- Must reflect the value delivered
- Must support a better than “best effort” basis
- The certificate and the ability, especially for Implementers to brand their products as certified, represents a value that is higher than the actual cost of certification to the AMWA.

Note that the AMWA anticipates that certification will create an additional revenue stream for the organization

Expenses

Certification related administration, legal or technical, documents, technical hosting and document distribution.

Commissioning

Each new certification process creates related startup costs. These can differ substantially depending on the complexity of the certification and the level of human involvement required.

Operating

Ongoing costs for active certifications are as mentioned above include administrative, technical human resources, hosting and distribution and legal. The operating costs will scale with an increasing amount of certifications unless this can be more or less automated. The main goal is to have this mostly automated and the costs to the AMWA to be minimal, after the initial setup.

Revenue

To finance the certification a combination of two revenue models is used.

Initial Payment on Submission

With each product submitted for submission a certification payment is to be paid – in advance regardless of the outcome of the certification process.

Payment for the Certificate

Upon passing, an additional certificate fee is to be paid. Once payment is received the official certificate is issued.

Validity of the Certificate

The validity of the certificate is for the tested product only. Any major new version of the product e.g. a full release number change from version 1.0 to 2.0 will require re-certification but without initial payment for submission.

Certificate Cost Variation

The cost for certification may vary depending on the complexity of the certification. The AMWA may introduce different levels of certifications – which may depend on the nature of the product type requesting certification. This may change in the future. In any case the AMWA reserves the right to have different fee structures for different certifications, or for certifying different device capabilities under the same certification.

Financial Model per Certification

Every new project or existing ones that have certification introduced must have a financial model to fund certification costs and/or funds allocated to for it by the project owner. We provide the example below as an illustration only.

Sample Certification Financial Model

Certification for AS-XY

Sample assumption – 15 products to be certified in year one – 5 read-only products, 5 writer products and 5 analyzers.

Expenses

	Qty	Cost	Extended
Startup Cost HR / Technical / Hosting	1	10000	10000
Ongoing Annual Cost Base	1	5000	5000
AMWA Cost per Full Certification	15	500	7500
AMWA Cost per Re-Certification	0	200	0
AS-XY Certification Cost Total Year One			22500

Revenue

	Qty	Price	Extended
Initial Certification per AS-XY Reader	5	1000	5000
Initial Certification per AS-XY Writer	5	2000	10000
Initial Certification per AS-XY Analyzer	5	2000	10000
Re-Certification	0	500	0
Total Revenue			25000

In this case, in Year One the Financial Model would work out with 2500 surplus.

SWOT Analysis

Strengths

AMWA is the only authority in this space. For AS-11 etc. to take off, certification is a MUST.

Weaknesses

AMWA has never successfully done a certification program before. This is a learning experience and can easily fail or draw much more resources than anticipated.

Opportunities

A working certification program will drive membership numbers, increase name recognition, prestige or authority of AMWA and finally could generate additional income.

Threats

If this goes wrong it will alienate potential and existing members and partners. Without prior experiences cost calculations could be too low and this may hurt / threaten the organization financially. On the other hand if we do not do this we will also alienate existing / potential members.

Marketing the program

This program must be actively marketed with support from a marketing plan

Interfacing with Partners

It is anticipated that partners who use the AMWA Certification program will help to defer the costs and effort associated with promoting the certification program for their project

Privacy

Issues of privacy must be addressed in any certification project. Generally, artifacts submitted to the AMWA in association with a certification request may be made available to members of the organization, along with the results of certification due-diligence performed by the AMWA.

Longevity of program

Lifecycle

An AMWA certification effort shall begin at the time that the AMWA Board approves a Project Proposal. The effort shall continue until the AMWA Board votes to discontinue issuing certifications for products under a specific Project Proposal. This does not mean that external entities must stop offering services (e.g. consulting

or testing) related to a specification. However, it does mean that the AMWA ceases to formally issue certifications.

Role of the Business Owner

A project may not be undertaken without the identification of a specific person who will serve as the Business Owner of the project. This person has a key role in determining the level of quality that must be met by implementations. Should a person cease to function in the role of Business Owner for any particular Specification, it is up to the AMWA Board to either identify another person to serve in that role, or to terminate certification of that specification. The Business Owner role for any given specification may not remain vacant for more than 6 months without terminating the certification program for that specification. Existing certifications shall remain in force, however no new certifications shall be issued.

How long is certification valid?

There is no expiry date on certificates issued under this program. However, the AMWA may revoke a certification in cases of fraud or in cases where an error was committed and the Implementer refuses to address the error. It is anticipated that, as the Minimum Quality Assurance Practices are modified by a Business Owner, certification in accordance with previously established Practices would cease. This is a normal part of operating the program, and no Board authorization is required in this case.

Legal

- The AMWA shall have written agreements with any partners regarding the financial, marketing and operational aspects of the certification program
- Implementers shall not be permitted to use trademarks or make claims of certification without meeting the terms outlined in this policy
- Neither the AMWA nor its Partners provides any guarantee of any kind regarding any claims made by an Implementer in association with this policy
- Implementers shall be legally bound to follow the terms of the certification agreement. A formal agreement shall be signed by the Implementer and delivered to the Certification Administration prior to the Certification Administration beginning any evaluation of submitted artifacts.