

# **IEEE Conformity Assessment Program (ICAP) Policy**

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<b>Table of Contents</b>	1. Introduction
	5
1.1	ICAP Scope and Purpose ..... 5
1.2	Types of Conformity Assessment Programs ..... 5
1.2.1	Conformance..... 5
1.2.2	Interoperability ..... 5
1.3	Risk Mitigation ..... 5
2.	Definitions..... 6
3.	ICAP ..... 8
3.1	Certification Authority ..... 8
3.1.1	Authorization of Test Labs ..... 8
3.2	Governance..... 9
3.2.1	ICAP Steering Committee..... 9
3.2.1.1	Agreements..... 9
3.2.1.2	Appeals Process ..... 10
3.3	Fees ..... 12
3.4	Copyright..... 12
3.5	Intellectual Property Rights (IPR) Policy ..... 12
3.6	Confidentiality..... 13
4.	ICAP Program Life ..... 14
4.1	ICAP Program Establishment ..... 14
4.1.1	ICAP Program Guidelines ..... 14
4.2	ICAP Program Reviews ..... 14
4.3	ICAP Program Withdrawal ..... 14
5.	ICAP Programs..... 15
5.1	ICAP Program-Specific Governance ..... 15

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5.1.1	Program-Specific Steering Committee.....	15
5.2	ICAP Program Process.....	15
5.2.1	Registration.....	15
5.2.2	Certification Agreement.....	15
5.2.3	Testing and Product Submission.....	16
5.2.4	Means of Determining Conformance.....	16
5.2.4.1	Self Certification.....	16
5.2.4.2	First-Party Testing.....	16
5.2.4.3	Market Surveillance/Inspections.....	17
5.2.4.4	Second-Party Testing.....	17
5.2.4.5	Third-Party Testing.....	17
5.2.4.6	Onsite Testing.....	17
5.2.4.7	Certification by Similarity.....	17
5.2.5	Certification.....	18
5.3	Revision of Standards and Test Specifications.....	18
5.4	Technical and Nontechnical Product Changes.....	19
5.5	Handling of Incomplete or Unsuccessful Applications/Certifications/Testing.....	20
5.6	Misrepresentation.....	20
6.	ICAP Authorized Test Labs.....	21
6.1	ICAP Authorized Test Lab Agreement.....	21
6.2	Responsibilities/Obligations/Role.....	21
6.3	Test Report.....	22
6.4	Accreditation.....	22
6.5	Audit.....	22
6.5.1	Types of Audits.....	23
6.5.1.1	Onsite Audit.....	23

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6.5.1.2	Desk Audit .....	23
6.5.1.3	Confidence Building Audit.....	23
6.6.	Renewal.....	23
7.	Mark.....	24
7.1	Award and Licensing of the Mark .....	24
7.2	Use of the Mark .....	24
7.3	Duration/Renewal.....	24
7.4	Revocation .....	24
8.	ICAP Certified Product Registry.....	26
8.1	Inclusion .....	26
8.2	Certificate Issuance.....	26
8.3	Removal .....	26

## **1. Introduction**

This document outlines the policies that govern the program activities of the IEEE-SA Conformity Assessment Program (ICAP). These policies provide a means of ensuring that ICAP-certified products, services, or systems have certain characteristics that are consistent from product to product, service to service, or system to system.

### **1.1 ICAP Scope and Purpose**

ICAP provides industry with an independent, centralized conformity assessment authority resource to support conformity activities related to IEEE standards. In addition, ICAP may support non-IEEE standards as part of a specific program, and it may serve in the role of Test Specification Authority. ICAP is organized as a program of the IEEE Standards Association (IEEE-SA).

### **1.2 Types of Conformity Assessment Programs**

The programs facilitated by ICAP may address product conformance, interoperability, and other aspects of conformity assessment as listed below.

#### **1.2.1 Conformance**

Conformance programs demonstrate that a product or process has met mandatory requirements as indicated in an approved standard or test specification. Each conformance program as appropriate may develop a specific Statement of Conformance that provides identification of the Certified Product; describes precisely the way in which the product meets the Conformance Requirements, including which optional features are supported; and presents the environment in which conformance was measured. The Statement of Conformance may be developed and completed by an ICAP Authorized Test Lab.

#### **1.2.2 Interoperability**

Interoperability test programs demonstrate that a product interoperates with other equipment that is used in its deployment. An approved interoperability test plan and test bed shall be used to implement interoperability programs. Plugfests and round-robin testing may be utilized to determine interoperability. ICAP may facilitate these testing events utilizing a first-, second- or third-party test lab.

### **1.3 Risk Mitigation**

Appropriate risk analysis shall be performed to ensure proper operation of ICAP Programs. Where appropriate, contracts should be executed to ensure all aspects of the ICAP Program are supported for the life of the program. Unless otherwise stated in specific contracts, a 90-day notice should be provided to program participants prior to program discontinuation (see section 4.3).

## 2. Definitions

- 2.1 Participant: The entity submitting a Test Object for participation in the Certification Program.
- 2.2 Certificate: A document issued by IEEE-SA, which certifies that a Test Object submitted for testing by a Participant has been found to meet all applicable requirements for ICAP certification, including any applicable retesting or auditing requirements.
- 2.3 Certification Agreement: A statement executed by a Participant at the start of the certification process, binding them to the ICAP Conformity Assessment Policy and any other relevant policies/procedures.
- 2.4 Certification Authority: The entity that creates the certification policies and manages the certification program.
- 2.5 Certification by Similarity: Granting certification for a product that has been deemed to be identical to or so resembles a product that has been previously certified and does not differ in certification criteria. Certification by Similarity may be issued with or without the need for additional testing or verification as deemed by the program-specific requirements.
- 2.6 Mark: The Certification Mark owned by IEEE that IEEE-SA may authorize for use in accordance with the guidelines included in the IEEE ICAP Certification Mark License Agreement, and the IEEE Certification Mark Usage Guidelines, as updated from time to time, which is hereby incorporated into this policy.
- 2.7 Certification Policy: A document that outlines the overarching rules for certification programs.
- 2.8 Certified Product: A product that has gained a Certificate by successfully completing the testing program and/or being certified by similarity.
- 2.9 Certified Product Registry: A list maintained by the Certification Authority of all Certified Products.
- 2.10 Conformance: Meeting all mandatory requirements of a test specification using, where required, an approved set of test tools.
- 2.11 Conformance Requirements: A definition of what mandatory and optional behavior a product shall implement in order to be considered conformant.
- 2.12 Declaration of Conformity: A letter signed and issued by a senior official from the manufacturer's company or an ICAP Authorized Test Lab as proof of a product having successfully completed the certification testing process.

- 2.13 ICAP Authorized Test Lab: An accredited laboratory that has been approved for ICAP participation by IEEE-SA.
- 2.14 ICAP Authorized Test Lab Audit Checklist: A program-specific set of requirements that test labs shall be assessed against during an onsite or desk audit.
- 2.15 IEEE-SA Conformity Assessment Program (ICAP): The Certification Authority, i.e., the entity responsible for administering the conformity assessment program for relevant IEEE standards. Where this policy uses the general term “ICAP” as a contact or reference point, all communications should be directed to the ICAP Director.
- 2.16 IEEE standard: A document with mandatory requirements that has been approved by the IEEE-SA Standards Board.
- 2.17 Recertification: A program-specific process of reaffirming a current certification or regaining a lapsed certification.
- 2.18 Statement of Conformance: A declaration, usually developed by the program-specific steering committee, provided to IEEE-SA by an Authorized Test Lab declaring that a Test Object submitted for testing by a Participant has been found to meet all applicable requirements for ICAP certification. The Statement of Conformance can be used for claims a Participant makes on its website, product documentation, or marketing material about how its product meets the requirements of the standard and certification program.
- 2.19 Test Object: The specific product or equipment submitted by the Participant for testing by the Authorized Test Laboratory and certification by ICAP.
- 2.20 Test Specification Authority: The organization sanctioned by ICAP to hold copyright of and maintain the test specifications.
- 2.21 Test standard: Any documented activity that validates compliance to a standard, enabling Participants to demonstrate that their products meet relevant features, performance, and functionality requirements.

## 3. ICAP

### 3.1 Certification Authority

When ICAP serves in the Certification Authority role, it provides support offerings in the areas of conformance and certification program formation and management, interoperability test events, test lab selection and authorization. In addition, standards-based test plan development (collaboration with partners), Certified Product Registry, workshops and seminars, as well as a central conformity resource for the IEEE community. While ICAP Authorized Test Labs perform the actual testing, ICAP retains the rights to administer its conformity assessment programs and to grant ICAP certifications (e.g., IEEE Mark and Certificate).

ICAP, in the role of the Certification Authority, shall

- Manage and administer all ICAP certification programs.
- Provide approval authority for all certifications and issue Certificates of Compliance or authorize appropriate organizations to issue certifications.
- Maintain current records for ICAP-Certified Products.
- Maintain current and archived official versions of test specifications.
- Publicize ICAP-Certified Products through an online registry.
- Authorize and publish a list of ICAP Authorized Test Labs that participate in specific ICAP programs.
- Manage and track dispute resolution processes.
- Provide administrative support to participants and facilitate technical support with its Authorized Test Labs, ensuring access to the information needed to participate in an ICAP program.

#### 3.1.1 Authorization of Test Labs

ICAP may serve as an organization that authorizes test labs. Any test lab participating in an ICAP program undergoes a qualification process. A test lab's past experience and expertise in that specific technology area, along with existing or future investment in personnel and equipment, shall be assessed prior to authorization. Part of the qualification process involves auditing of the test labs as defined in section 6.5. A test lab shall only perform work for a specific ICAP Program after it has received authorization or a provisional authorization.

A provisional authorization may be granted when deficiencies during an audit are deemed not to be major. However, all audit findings should be resolved within 90 days or as determined by the auditor in order to maintain ICAP Authorized Test Lab status; if findings are not resolved, the provisional authorization shall be rescinded. Unless otherwise specified by the specific program,



all lab authorizations are valid for two years and may be renewed upon passing follow-up audits and paying appropriate program fees. ICAP may require test labs to earn accreditation from an authorized accrediting body as outlined in 6.4.

## **3.2 Governance**

### **3.2.1 ICAP Steering Committee**

ICAP shall be governed by the IEEE-SA Board of Governors (BoG), with oversight delegated by the IEEE-SA BoG to the ICAP Steering Committee (ICAP-SC), a subcommittee of the IEEE-SA BoG which reports to the BOG. The ICAP-SC members shall have a fiduciary duty to the IEEE. The ICAP-SC Secretary shall be a member of the IEEE Standards staff.

The ICAP-SC shall

- Provide high-level oversight of programs
- Recommend program mission/strategy for approval by BoG
- Participate in development of and approve program strategic plan/oversee implementation of program strategic plan
  - Activity onboarding informational reports
  - Activity launch report to BoG
- Review key metrics for performance
- Review identified threats to financial solvency
- Recommend adoption of and modification of governance policies for approval by BoG
- Act in accordance with fiduciary duties (care, loyalty, obedience)
- Add individual perspective/experience/judgment

The ICAP-SC shall consist of four to six (4-6) IEEE-SA BoG members (including the ICAP-SC Chair and IEEE-SA Treasurer) who shall serve as voting members on the ICAP-SC. All members of the ICAP-SC shall be appointed annually by the IEEE-SA President.

The ICAP-SC may invite subject matter expert participation as needed for contributions on specific issues and programs.

#### **3.2.1.1 Agreements**

ICAP shall establish appropriate agreements in order to operate a conformity assessment program. Agreements may include a Trademark License Agreement relating to the use of a trademark on a product or group of products, Certification Agreement, and any other agreements necessary to protect the interests of IEEE, ICAP, its programs, and participants.

Certification Agreements relate to a specific product or family of products for which certification is requested. Test Laboratory Agreements should indicate the scope of testing that a lab has been authorized by ICAP to perform.

### **3.2.1.2 Appeals Process**

Persons who have directly and materially affected interests and who have been, or could reasonably be expected to be, adversely affected by a decision of the ICAP-SC, shall have the right to appeal actions of the ICAP-SC in accordance with this clause, other than actions that relate to the adoption or modification of a policy which involve the exercise of a fiduciary duty. In addition, an appellant may appeal an ICAP Program's final decision on certification or conformity issues to the ICAP-SC.

The appellant shall file a written appeal brief with the ICAP-SC Secretary within 30 days after the date of notification of action of the ICAP-SC or within 30 days after an ICAP Program's decision becomes final. The appeal brief shall state the nature of the objection(s) including any adverse effects, actions that are at issue, and the specific remedial action(s) that would satisfy the appellant's concerns. Previous efforts, including all subordinate appeals, to resolve the objection(s) and the statement of outcome/decision of each, including a sequence of events of these efforts, shall be provided. The appellant shall include documentation supporting all statements in the appeal brief. All issues regarding the subject action shall be filed together in one appeal brief.

The ICAP-SC Secretary shall send the appellant a written acknowledgment of receipt of the appeal brief within five working days of such receipt. The ICAP-SC Secretary shall send the appellee a copy of the appeal brief and acknowledgement within 20 days of such receipt and shall send all parties a written notice of the time and location of the hearing ("hearing notice") with the Appeal Panel. The hearing with the Appeal Panel shall be scheduled at the location set for, and during the period of, the first ICAP-SC meeting that is at least 90 days after mailing of the hearing notice by the ICAP-SC Secretary unless otherwise agreed to by the parties to the appeal.

Within 45 days of receipt of the hearing notice, the appellee may send the appellant and ICAP-SC Secretary a written reply brief, which specifically and explicitly addresses each allegation of fact in the appeal brief to the extent of the appellee's knowledge. If the appellee furnishes a reply brief, the brief shall include documentation supporting all statements contained in the reply brief.

The ICAP-SC Chair shall establish a three-member Appeals Panel. Any member of the IEEE-SA BoG may be appointed to the Appeals Panel. At least two members of the Appeal Panel shall be acceptable to the appellant and at least two shall be acceptable to the appellee. If the parties to the appeal cannot agree on an Appeal Panel within a reasonable amount of time (not more than thirty (30) days from the designation of the initial Panel), the ICAP-SC Chair shall appoint the members of the Appeal Panel. If an Appeal Panel member resigns or is removed from the

Appeal Panel at any time before the appeal hearing, then the ICAP-SC Chair shall appoint a replacement. The replacement shall be subject to the acceptability criteria described above. To ensure continuity of the appeals process, a specific Appeal Panel shall remain impaneled until the publication of the Appeal Panel's final decision(s). The Appeal Panel may call an Executive Session before, during the course of, or following an appeal hearing to consider its action on a specific appeal.

The Appeals Panel shall first review whether the appellant has established a prima facie case, especially in reviewing whether any previous appeal panel decision appealed from was adjudicated in accordance with the relevant P&Ps. If it is determined that a prima facie case has not been established, the ICAP-SC Secretary shall notify the appellant in writing that the appeal will be dismissed.

No party to an appeal may communicate with any member of the Appeal Panel regarding the appeal while the matter is pending (i.e., from the time of filing of the appeal brief to finalization of the Appeal Panel decision). No party may make a transcript of the hearing without the consent of the ICAP-SC. Parties may only address and respond to questions from the Appeal Panel.

The appellant has the burden of demonstrating adverse effects, improper actions, and the efficacy of the requested remedial action. Each party may present other pertinent arguments, and members of the Appeal Panel may address questions to individuals. The Appeal Panel shall only consider documentation included in the appeal brief and reply brief, unless

- a) Significant new evidence has come to light; and
- b) Such evidence reasonably was not available to the appellant or appellee, as appropriate, at the time of filing; and
- c) Such evidence was provided by the appellant or appellee, as appropriate, to the other parties as soon as it became available.

The Appeal Panel shall render its decision, based upon majority vote of the Appeal Panel (Appeal Panel members shall vote to find in favor of the appellant or the appellee and shall not abstain), in writing within 30 days of the hearing, stating findings of fact and conclusions, with reasons therefore, based on a preponderance of the evidence. Consideration may be given to the following positions, among others, in formulating the decision:

- Finding for the appellant, remanding the action to the appellee, with a specific statement of the issues and facts in regard to which fair and equitable action was not taken;
- Finding against the appellant, with a specific statement of the facts that demonstrate that appellant failed to meet its burden to demonstrate that fair and equitable treatment of the appellant was not taken;

- Finding that new, substantive evidence has been introduced, and remanding the entire action to the appropriate committee for reconsideration.

The Appeal Panel Chair, through the ICAP-SC Secretary, shall notify the appellant, the appellee, and members of the ICAP-SC in writing of the decision of the Appeal Panel.

If an Appeal Panel member resigns or is removed after a hearing, then the remaining members of the Appeal Panel may issue a decision if their decision is unanimous. If it is not unanimous, then the ICAP-SC Chair shall appoint a replacement Appeal Panel member and a rehearing shall be conducted.

The ICAP-SC encourages settlement of disputes at any time. Any settlement (to which the parties agree in writing) that is consistent with these policies and procedures, or an agreement to withdraw the appeal, shall terminate the appeal process.

### **3.3 Fees**

ICAP shall charge program and/or certification fees on a per-program basis. ICAP certification fees shall be set forth in an available fee schedule. ICAP is responsible for all fees associated with the certification process.

### **3.4 Copyright**

In general, ICAP shall maintain copyright associated with the elements (e.g., publications, policies, procedures, test plans) utilized to support ICAP and its programs. ICAP shall provide appropriate rights to copyrighted materials to participants and ICAP Authorized Test Labs on a program-by-program basis. The following copyright statement, or a modified version approved by the IEEE-SA BoG to apply to specific situations, shall be appended to each ICAP document:

© **YEAR**, IEEE. All rights reserved. All trademarks used within this document are the property of their respective owners. [INSERT ANY IEEE trademarks]. No part of this document may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the copyright owner.

In certain cases, ICAP may not hold copyright to particular program-related documents or applications (e.g., test suites or test tools) necessary to conduct a conformity assessment program. ICAP shall obtain the necessary licenses in order to carry out its role as the Certification Authority in support of its programs and to ensure the appropriate use and protection of itself and program participants.

### **3.5 Intellectual Property Rights (IPR) Policy**

Each ICAP program shall establish an IPR policy that accommodates IPR in a manner that aligns with the technology and the conformity assessment program.

IEEE's general policy regarding patents and intellectual property and ICAP is as follows:

“NOTE: The user's attention is called to the possibility that compliance with this [insert name of document, specification, application, etc.] may require use of an invention covered by patent rights. By publication of this [insert name of document, specification, application, etc.], IEEE takes no position with respect to the validity of any such patent rights or their impact on this [insert name of document, specification, application, etc.]. Similarly, IEEE takes no position with respect to the terms or conditions under which such rights may be made available from the holder of any such rights.”

### **3.6 Confidentiality**

Unless required by a court order, all information relating to a Participant and the product to be certified shall be held confidential during the certification process as set forth within the ICAP Certification Agreement. Test results and any corresponding test reports shall remain confidential. Information regarding the results of using a test suite shall not be disclosed in any publicly available document or to any third party by ICAP or an ICAP Authorized Test Lab. In addition, ICAP and its Authorized Test Labs shall always hold confidential any information regarding unsuccessful applications for certification.

ICAP shall disclose information indicating that certification was achieved, the description of the Certified Product, and if applicable, the Statement of Conformance for the Certified Product. Any claims of conformance or information related to the certification process may only be made after ICAP has notified the Participant in writing that the product has passed the certification process. ICAP shall make the certification information publicly available by including it within the ICAP Certified Product Registry available on ICAP's website. ICAP reserves the right to determine the date of release of such information.

## **4. ICAP Program Life**

### **4.1 ICAP Program Establishment**

Candidate programs for conformity assessment may be identified by IEEE staff, the ICAP-SC, or interested parties. In any of these circumstances, the proposed program shall be evaluated by the following considerations at a minimum:

- Industry value and interest (need in the industry, proof of demand)
- Financial viability (by demonstrating a positive return on investment)
- Risk analysis and mitigation

Candidate programs shall submit documentation addressing these subjects to the ICAP Director. All ICAP Programs shall be approved by a majority vote of the ICAP-SC for advancement into active development. A majority vote of the IEEE-SA Board of Governors (BoG) will also be required prior to actual launch of the certification program.

#### **4.1.1 ICAP Program Guidelines**

Each ICAP Program shall create policies and procedures. Each ICAP Program shall use the ICAP Conformity Assessment Policy as the basis for their policies.

Certain conformity assessment programs may have differing levels of compliance based on the number of requirements that the products meet. The program-specific requirements shall clearly indicate the requirements that a product needs to meet to achieve a particular level of compliance. Each program may address provisional certifications if critical deployments are pending.

### **4.2 ICAP Program Reviews**

Periodically, all ICAP programs shall be reviewed for performance and viability. This may include general assessment of each program for alignment with the Certification Policy, efficiency, complaint resolution, and revenue performance. The ICAP-SC shall determine the general criteria for program review.

### **4.3 ICAP Program Withdrawal**

An ICAP Program shall be withdrawn or discontinued through a two-thirds vote of the ICAP-SC to recommend withdrawal or discontinuation to the BoG, and a majority vote of the IEEE-SA BoG approving withdrawal or discontinuation. In the event of a program discontinuation, all participants in the program should be informed in writing at least 90 days prior to the withdrawal date. At a minimum, all certifications to date shall be archived for a period of 3 years. The online Certified Product Registry should be maintained for a minimum of 12 months. In the event a program is withdrawn, the Certified Product Registry shall be maintained online for an additional 12 months.

## **5. ICAP Programs**

### **5.1 ICAP Program-Specific Governance**

#### **5.1.1 Program-Specific Steering Committee**

Each ICAP program shall assemble a steering committee made up of individuals with technical and industry expertise in the ICAP program subject matter. Participation in this committee shall be on a voluntary basis. ICAP may charge fees for the participation on this steering committee.

The steering committee could be tasked with creating and vetting the test specification document when the standard itself does not address testing. The steering committee shall also be leveraged to address other program-specific requirements, i.e., definition of conformity, test lab identification, test tools validation, advisors on test methods and test specification interpretation, etc. Technical auditors to perform technical assessments of labs may also be drawn from this group. The membership of each ICAP program steering committee shall be approved by a majority vote of the ICAP-SC at least annually.

### **5.2 ICAP Program Process**

#### **5.2.1 Registration**

In order to participate in an ICAP certification program, Applicants shall first demonstrate their agreement with stated process and procedures. The Participant shall execute the ICAP program Certification Agreement and remit any applicable fees. Upon registration approval, ICAP shall provide access to all necessary program information.

#### **5.2.2 Certification Agreement**

ICAP shall establish a Participant Terms and Conditions governing each program. The Participant Terms and Conditions shall be entered into between IEEE-SA and the Participant. The agreement shall be executed before the Participant submits a product for certification to an ICAP Certification Program. Confidentiality statements shall be incorporated into the Participant Terms and Conditions and shall cover confidentiality between the Participant, ICAP, and ICAP Authorized Test Labs. The Participant Terms and Conditions shall be legally binding, and Participants shall agree to the Participant Terms and Conditions in order to maintain certification of their products.

The Participant Terms and Conditions shall minimally set forth ICAP's obligations (certification process and certification renewal) and Participant obligations (registration, payment, and conformance, testing, certification, maintaining up-to-date certification information, renewal), confidentiality, liability and indemnity, fees, and execution. Each Participant Terms and Conditions shall also at a minimum include Participant contact details, product and any product families covered, validity, software and firmware information, technical and business contacts. Authorization to conduct product or factory surveillance may also be covered in the Participant Terms and Conditions.

### **5.2.3 Testing and Product Submission**

Upon execution of the ICAP Participant Terms and Conditions and receipt of all fees, an ICAP Authorized Test Lab shall be authorized by ICAP to conduct a technical review of the documentation to determine if the submitted devices comply with applicable prerequisites and test criteria. Testing and submission of products shall be made directly to an ICAP Authorized Test Lab. Where multiple test labs are authorized, Participants may select any ICAP Authorized Test Lab for that program. Ongoing dialogue should continue between the Participant and the ICAP Authorized Test Lab to ensure all technical aspects are discussed and understood.

Each Certified Product is tested and certified to a particular version of the test standard and/or specification. The most current revision of the standard or test specification being enforced shall be explicitly mentioned in the program-specific policies. Any deviation from the approved specification should be brought to the attention of ICAP. The related documents may be obtained from the standards development organization's website or its selling agents or through ICAP where appropriate. Some documents may have costs associated with them either as purchase cost of the standard or membership costs to an alliance or certification program to gain access.

The Participant shall follow the appropriate policies as outlined in this Policy and the requirements of a specific ICAP Program in order to earn its certification. It is the responsibility of Participant to inform ICAP of any mechanical, software, or manufacturing changes to their product that would impact certification.

### **5.2.4 Means of Determining Conformance**

#### **5.2.4.1 Self Certification**

Self-certification programs are primarily developed for Participants intending to test and self-declare conformance to a standard or specification. These programs usually apply where there is a lack of independent testing facilities or the testing expertise lies within the manufacturer. In these programs, the manufacturer performs the tests and asserts success. Additionally, the manufacturer shall submit a test report or some other indication that tests were successfully conducted and passed. A review of the data is done by ICAP prior to issuance of the certificate.

#### **5.2.4.2 First-Party Testing**

First-party testing programs, where a Participant's testing lab is used in testing the product, are performed by authorized personnel of the Participant's test lab using approved test tools and test methods. The test lab shall undergo audits as explained in section 6.5 before becoming an ICAP Authorized Test Lab. Demonstrable separation should exist between the testing lab and the product design and sales division so as not to unduly stress test results or attestations of conformance.



### **5.2.4.3 Market Surveillance/Inspections**

Market surveillance and factory inspections may be performed by routinely scheduled visits to a manufacturer's factory or lab location. ICAP may exercise surveillance of the product manufacturing process, or the quality system established in the manufacturer's premises. These shall either be announced or unannounced inspections. Market surveillance may also involve assessment of a Certified Product that is currently in service, i.e., at a utility substation, at a telecom central office, or available through retail channels. This program involves evaluating the product to a known set of criteria that may involve testing at a lab, visual inspection, documentary evaluation, verifying operation on site, comparison to a previously lab-tested product, or other criteria.

### **5.2.4.4 Second-Party Testing**

Second-party testing occurs at the end of production cycle, whereby a person or organization that has an interest in the product (e.g., the procurer, purchaser, or user) performs the evaluation. The person or organization shall take the necessary steps to determine the feature, function, or characteristics of a product and to determine if it complies with the appropriate technical standards and requirements. A review of the data is done by ICAP prior to issuance of the certificate.

### **5.2.4.5 Third-Party Testing**

Third-party testing occurs at the end of the production cycle, and it is performed by an ICAP Authorized Test Lab. The ICAP Authorized Test Lab takes the necessary steps to determine that the feature, functionality or characteristics of a product comply with the appropriate technical standards and test requirements. Testing laboratories are qualified as independent in that they do not possess an interest in the person or organization that provides the product for conformity assessment or any user interests in that product.

### **5.2.4.6 Onsite Testing**

Onsite testing shall occur at the final installation site or at the manufacturer's location and is primarily for unique products or larger installations that usually cannot be tested in a lab environment. Qualified testing personnel with established test tools shall perform testing to a known test specification. Evaluation may occur with the unit in or out of service as dictated by the test requirements.

### **5.2.4.7 Certification by Similarity**

A Participant may request certification for a product that may be deemed substantially similar to a previously tested product that is a Certified Product. This may include a previously Certified Product that may have undergone modifications that do not require retesting and certification.

Each program-specific policy shall address gaining Certification by Similarity. ICAP may employ external subject matter experts or experts within the ICAP Authorized Test Labs to determine the level of retesting that may be required of a product that is declared to be similar by a Participant.

### **5.2.5 Certification**

Upon completion of the testing or surveillance activity, test reports or raw data shall be completed to substantiate that the product under test meets the appropriate ICAP requirements. ICAP shall perform a final review of the test report or data issued by an ICAP Authorized Test Lab along with other related agreements that are required to be executed with the Participant. If there are no additional findings, ICAP shall proceed to issue the certificate. In most cases an electronic copy of the Certificate shall be issued to the Participant. A Certified Product shall be listed in the Certified Product Registry within two weeks of issuance of the Certificate. As the Certification Authority, ICAP reserves the right to reject applications for certification if during the final review it is found that the product failed to meet all the requirements needed to gain certification.

Usage of the Mark and declaration by a Participant is not permitted until it has received the Certificate from ICAP. Obtaining a passing test report from an authorized test lab shall not constitute that the product has been certified.

When recommending a product for certification, the ICAP Authorized Test Lab is required to submit a Declaration of Conformity to the Participant signed by an authorized officer of the testing organization. The Declaration of Conformity should clearly indicate the specific product and the level of compliance it has achieved.

Each program shall establish time periods that state how long a product shall remain certified to a particular version of the specification.

### **5.2.6 Exit from Program**

A Participant's successful conclusion of the program shall be marked with the issuance of a Certificate and a listing in the Certified Product Registry. In the event a product is withdrawn from the certification program at any time, the Participant shall be responsible for all outstanding fees.

## **5.3 Revision of Standards and Test Specifications**

A product is certified to a specific version of the test specification or standard if it has successfully undergone a certification program. When a revised version of the standard or specification is adopted as part of the certification program, ICAP shall provide the scope of retesting that needs to occur to re-qualify products to the most current version of the standard.

ICAP may not enforce the latest revision of a standard or a test specification as soon as it is released; each new release of a standard or test specification shall be evaluated with the involvement of a program-specific steering committee, ICAP-SC, or regulatory authorities to determine the impact and the need to revise the certification program. When significant changes occur, ample time shall be provided for Participants, test labs and other involved parties to prepare for any impending changes.

ICAP shall indicate how a Participant may qualify for certification under a new version of the test specification. Depending on the extent of changes, retesting may be required. ICAP shall announce any impending changes, stating an effective date for the changes, and providing notification at least 30 days after the changes to the test specification have been approved.

The Certificates of Compliance to the previous version of the standard or test specification and acknowledgement on the Certified Product Registry are valid as long as the Participant continues to meet the requirements as stated in the Certification Policy and/or Agreement and ICAP has indicated continued support for this previous certification. Although ICAP may continue to honor the certification under a previous version of the specification, end-users have the prerogative to demand Participants meet a more recent version of the specification prior to procurement or deployment.

If ICAP chooses not to support certifications to an older version of the standard or specification, participants shall be informed at least 30 days prior to date when certifications will no longer be available. Where possible, grace periods shall be defined for Participants to continue marketing their products to previous versions until they have the products retested and re-certified.

ICAP may reissue certificates reflecting the most current versions of standards and/or specifications. The Certified Product Registry shall also be modified to reflect the version number of the test specification or standard to which the product complies.

All enforcements of revised standards or test specifications shall be announced through ICAP or an ICAP program-related website. Where appropriate, information shall be disseminated directly to existing Participants or program participants. These announcements shall clearly indicate the period during which Participants may continue to certify to the older version, if applicable.

#### **5.4 Technical and Nontechnical Product Changes**

Products that have technical differences from a previously Certified Product that require partial or full testing of the requirements shall also be required to submit a new application. Technical changes include hardware, software, middleware, and cosmetic changes.

Products that have undergone nontechnical changes may not require retesting or additional surveillance. Nontechnical changes may include change in company name, change in product name for marketing purposes, OEM product requiring additional listing, etc.

If there are documentation changes with no other technical changes, the certification may be amended upon request to ICAP. The Participant shall provide a written statement to the Certification Authority indicating the reason for the change. Upon execution of an amended Certification Agreement and payment of appropriate fees, a revised certificate shall be issued and the listing in the Certified Product Registry amended to accurately reflect the Certified Products.

### **5.5 Handling of Incomplete or Unsuccessful Applications/Certifications/Testing**

Any applications for certifications that do not result in a successfully Certified Product shall be closed after 90 days notice to the Participant. Each program-specific policy shall state the period of time for which partial testing performed on a product shall be valid while the Participant has an opportunity to bring the product back to complete the certification program. If, during the period of inactivity, a new test standard or specification is implemented, the Participant shall be required to restart the application. A Participant may request in writing to ICAP if they require an extension past 90 days to keep its file active. ICAP shall reserve the right to close the application.

A Participant that has not paid the appropriate certification fees shall have their certification rescinded and removed from the Certified Product Registry after 120 days. A product may be reinstated into the Certified Product Registry and issued certification with the payment of appropriate fees and delivery of any other supporting documents as requested by ICAP up to 12 months after certification was rescinded. A Participant shall have to reinitiate the application to have their product re-certified.

### **5.6 Misrepresentation**

Any finding of misrepresentation shall result in automatic removal of the certification. Appropriate legal proceedings shall be taken for false representation and inappropriate use of the Mark. ICAP shall also reserve the right to impose fines to recoup administrative charges for rescinding the certifications.

## 6. ICAP Authorized Test Labs

ICAP Authorized Test Labs are expected to follow the procedures and guidelines outlined by the Certification Authority. A high level of integrity, technical acumen, and professionalism is required of an ICAP Authorized Test Lab.

### 6.1 ICAP Authorized Test Lab Agreement

ICAP shall consider all applications for authorized test lab status on a first-come first-served basis. An agreement shall be executed between ICAP and each Authorized Test Lab. The agreement shall specify the specific program/technology authorization granted to perform testing. The agreement shall also cover areas such as: confidentiality, test lab obligations, and audit requirements. All participating laboratories shall at minimum agree in writing to the following requirements:

- General quality and technical competence to perform testing to the particular program.
- Have and maintain the appropriate plant and testing facilities, including test procedures that detail how testing should be conducted utilizing their lab facilities, equipment and personnel.
- Employ appropriate personnel with adequate qualifications, experience and training to perform the type of tests required for the program.
- Maintain all original test data and observations in a secure format.
- Notify ICAP immediately of any attempt to hide or exert undue influence over test results or incorrect reporting of compliance that may have led or not led to certification.
- Agree to an onsite audit by an ICAP designated assessor, to be performed at a frequency as determined in the program-specific policy.
- Pay annual participation fees.

For labs that cannot fully meet all the requirements, ICAP may provide provisional authorization with a written declaration that full competence shall be achieved with the next 12 months. ICAP reserves the right to eliminate a candidate test lab that does not meet the requirements for a test lab in that Program. ICAP may also add or eliminate test labs from the Programs with specified notice periods so as to adequately meet the business needs for a particular Program.

### 6.2 Responsibilities/Obligations/Role

Testing laboratories may be private entities, a manufacturer's or service provider's internal test lab, or part of an academic institution. Technical competence, established quality systems, and financial stability are to be vetted prior to engagement. Where possible, more than one test lab shall be engaged to ensure proper geographical coverage and to allow the market to decide on

pricing and service levels. Testing laboratories may also be engaged to conduct interoperability events.

A periodic review of test suites should take place at specified intervals for each ICAP Program. If updates to the test suite are needed, the ICAP Authorized Test Lab or the program specific steering committee may be leveraged to make updates and re-qualify the test suite. The ICAP-SC may call for interim audits of test labs to ensure testing to the new test suite is correctly implemented.

### **6.3 Test Report**

The final test report is a major deliverable by the ICAP Authorized Test Lab to the Participant and ICAP (when acting as the Certification Authority). The test report shall follow any report templates specified for a particular program. ICAP may create or approve appropriate templates for test reports and certificates. Participating test labs shall adopt the test report templates with minimal modifications. No modifications to a previously issued test report shall be permitted unless otherwise noted in the program-specific policy. Issuance of addendums to the test reports shall be accepted.

All samples used during testing should be clearly identified by name, model number, serial number, and software and firmware revisions. Where possible, photographs of equipment under test should be included in the test report. Apart from the product under test, all supporting equipment, test equipment, and calibration due dates should be clearly shown in the report as well. The report should clearly indicate if the product met or did not meet the requirements.

All test reports should have the signatures of the test engineer and a reviewer. Although it is not required to submit each test report to ICAP prior to certification, ICAP has the right to request a copy for review at any time. An electronic copy of the test report is expected to be kept on file at the ICAP Authorized Test Lab for no less than 3 years.

### **6.4 Accreditation**

All requirements for a lab to gain accreditation shall be made known by ICAP. Where possible, the ISO/IEC 17025 standard and checklist shall be used to assess labs. An ICAP Authorized Test Lab Checklist shall be drafted by ICAP or by the steering committee for each program.

Accreditation bodies may be engaged to accredit ICAP Authorized Test Labs. Where possible, ICAP shall engage accreditation bodies that are recognized by International Laboratory Accreditation Cooperation (ILAC) and International Accreditation Forum (IAF).

### **6.5 Audit**

In order for a test lab to be granted the status of an ICAP Authorized Test Lab, it shall undergo periodic onsite quality and technical audits. The technical audit shall specifically assess the technical expertise and capabilities of the lab for that specific program.

An initial audit, prior to joining the program shall be performed by a quality and technical auditor assigned by ICAP. Audits shall be performed to assess the requirements of the ICAP Authorized Test Lab Audit Checklist. Successful completion of the audit is required to attain status as an ICAP Authorized Test Lab.

### **6.5.1 Types of Audits**

Participating labs may undergo various types of audits to gain and maintain authorized lab status.

#### **6.5.1.1 Onsite Audit**

An onsite audit is usually performed onsite at the lab location. One or more auditors shall assess the lab's quality system and technical competence to perform testing to the related standard or test specification. These audits shall take a minimum of 2 days to complete.

#### **6.5.1.2 Desk Audit**

This usually involves a document review of test procedures, training, calibration or quality records. This audit should not require an auditor's presence onsite.

#### **6.5.1.3 Confidence Building Audit**

In order to evaluate the technical competence and quality of testing at a participating lab, ICAP may require the presence of an auditor during actual testing programs to evaluate the procedures and results. This audit may be required when an onsite audit is not adequate to establish the technical competence of a test lab.

### **6.6. Renewal**

All ICAP Test Lab authorizations shall be valid for two years after initial audits have been passed. Labs shall undergo an audit at least every two years to maintain ICAP Authorized Test Lab status. Frequency of audits may be determined in the program-specific requirements. ICAP reserves the right to require more frequent audits if necessary.

## **7. Mark**

### **7.1 Award and Licensing of the Mark**

An IEEE Mark, or other program-specific mark if available, may be applied to products that meet a specific ICAP Program's Conformance Requirements, once ICAP has provided written notice that certification has been achieved. In order to use the IEEE Mark, the Participant shall be required to execute an IEEE Mark Trademark License Agreement with ICAP. The license agreement is the legal contract governing how the IEEE Mark may be used and defines the rights and obligations of the licensee. ICAP shall monitor the use of the IEEE Mark.

The license agreement shall include a warranty of conformance. This requires the licensee to agree to the policies expressed in the ICAP Policies and other policies that may govern a specific ICAP Program, and to warrant and represent that each Certified Product meets the applicable Conformance Requirements. The Conformance Requirements shall include conformance to defined applicable specifications as set forth by ICAP (and its programs) and a passing result received from an ICAP Authorized Test Lab.

### **7.2 Use of the Mark**

The IEEE Mark may only be used on or in relation to Certified Products under a set of usage guidelines to be provided to each Participant. It may not be used with products that have not completed the certification process or that have been withdrawn from the certification process. Award of the IEEE Mark is not meant to be an endorsement of any specific product.

ICAP, in its role as the Certification Authority, has the right to audit the Participant's claims of conformance and adherence to the requirements of this policy and the license agreement. Buyers and prospective buyers of a Certified Product who discover non-conformance in the Certified Product may report such non-conformance to ICAP via its website.

### **7.3 Duration/Renewal**

The issuance of an IEEE Certification may be accompanied by a duration or renewal period to be defined within the IEEE Mark usage guidelines to be developed to support each program's Mark.

### **7.4 Revocation**

If a Certified Product is found to be no longer conformant with the applicable requirements, ICAP shall notify the Participant who shall perform the following steps within 90 days:

- Rectify the non-conformity and satisfy the Certification Authority of same.
- Satisfy that the Certified Product is conformant.
- Cease use of the IEEE Mark in relation to the Certified Product, in which case the product ceases to be a Certified Product and ensure no product in the distribution channel retains the IEEE Mark.



If the Participant fails to take one of the above actions within 90 days, the product shall cease to be a Certified Product. If the last option is selected, the Participant shall have 45 days to invoke the appeals process as described in this policy or cease use of the IEEE Mark in relation to the Certified Product.

If a product ceases to be a Certified Product, any and all rights the Participant has to use the IEEE Mark on or in relation to the product shall cease immediately. The Participant, at its expense, shall remove the IEEE Mark from all subsequent production of that product and from all sales literature and other materials. ICAP may inspect any such product, sales literature or other materials to ensure adequate removal of the IEEE Mark.

Once the IEEE Mark has been removed, any future use of the mark in relation to that product shall require full re-certification. Failure to adhere to these provisions shall be considered a breach of the Trademark License Agreement and shall result in its termination.

## **8. ICAP Certified Product Registry**

### **8.1 Inclusion**

An ICAP-hosted Certified Product Registry shall be maintained for disclosure of certification information and as a public web-based record of all Certified Products maintained and awarded through an ICAP program unless requested in writing from the Participant not to list the product or delay the listing in the ICAP Certified Product Registry.

Once ICAP is satisfied that the Participant's product meets the applicable Conformance Requirements, ICAP shall issue a written notice to the Participant that the product is a Certified Product and enter the product in the ICAP Certified Product Registry. Only ICAP Certified Products are included in the Certified Product Registry.

As part of the ICAP Certified Product Registry, the following information shall be disclosed at a minimum:

- Product name and model number
- Manufacturer name and address
- Participant name and address, if different from manufacturer
- ICAP Authorized Test Lab name and address
- Software and firmware version numbers, if applicable
- Company logo

### **8.2 Certificate Issuance**

In addition to a listing in the ICAP Certified Product Registry, ICAP shall provide a Certificate to each Participant for Certified Products contained within the Certified Product Registry.

### **8.3 Removal**

If a product ceases to be certified, ICAP shall remove it from the Certified Product Registry, and all rights to the IEEE Mark shall cease. A Participant may at any time, without charge, request that ICAP remove the Participant's Certified Product from the Certified Product Registry by written notice. Such product shall then no longer be considered a Certified Product.

In addition, provided that ICAP has given the required notice of renewal, failure by a Participant to renew the certification of a Certified Product by the renewal date shall be deemed to be a voluntary removal of that product from the Certified Product Registry. Such product shall no longer be a Certified Product.