|  |  |
| --- | --- |
| **Keywords:** anti-malware; accreditation; protocol; standard; test | AMTSO 1:2016a September 7, 2016  **DRAFT 1** |

**Testing Protocol  
Standards for the Testing of   
Anti-Malware Solutions**

**Sponsored by:**

The Anti-Malware Testing Standards Organization, Inc.   
AMTSO Member Approval Date (XX-XX-XXXX)

**Abstract:**

This standard provides testing protocol and behavior expectations for testers and vendors relating to the testing of anti-malware solutions. They further standardize how information should be communicated to vendors with products or solutions that may be included in a public test. Separate sections on referenced publications, definitions, standards elements and arrangements are included.

|  |  |
| --- | --- |
|  | www.amtso.org |

Notice and Disclaimer of Liability Concerning the Use of AMTSO Documents

This document is published with the understanding that members of the Anti-Malware Testing Standards Organization, Inc. (“AMTSO”) are supplying this information for general educational purposes only. No professional engineering or any other professional services or advice is being offered hereby. Therefore, you must use your own skill and judgment when reviewing this document and not solely rely on the information provided herein.

AMTSO believes that the information in this document is accurate as of the date of publication although it has not verified its accuracy or determined if there are any errors. Further, such information is subject to change without notice and AMTSO is under no obligation to provide any updates or corrections.

You understand and agree that this document is provided to you exclusively on an as-is basis without any representations or warranties of any kind whether express, implied or statutory. Without limiting the foregoing, AMTSO expressly disclaims all warranties of merchantability, non-infringement, continuous operation, completeness, quality, accuracy, and fitness for a particular purpose.

In no event shall AMTSO be liable for any damages or losses of any kind (including, without limitation, any lost profits, lost data or business interruption) arising directly or indirectly out of any use of this document including, without limitation, any direct, indirect, special, incidental, consequential, exemplary, and punitive damages regardless of whether any person or entity was advised of the possibility of such damages.

This document is protected by AMTSO’s intellectual property rights and may be additionally protected by the intellectual property rights of others.

# Foreword

This standard was developed to provide guidance to anti-malware testers and vendors, and any others involved in the testing or rating of anti-malware products and solutions. This standard includes testing protocol that can be used by any entity or individual whose professional or private activities are relevant to the subject addressed. Compliance with this standard conforms to the principles and practices of AMTSO’s Fundamental Principles of Testing.

AMTSO is a non-profit organization established to help improve the business conditions related to the development, use, testing and rating of anti-malware solutions. Anti-malware testing is the critical link between the vendor and end user and proper testing can establish that anti-malware solutions work as vendors claim. However, improper testing can create misleading results and leave corporations and consumers with inadequate protection that risks both their privacy and security. In addition, the lack of proper testing protocols can create unnecessary expense for vendors, which ultimately can impact the amount of resources devoted to research and development, and shift focus from critical threat detection toward compliance with opaque or unfair testing procedures.

##### A key part of AMTSO’s mission has been to establish protocols relating to testing behavior within the industry. In 2008, AMTSO adopted principles for testing that have been widely adopted as best practices for anti-malware testers. However, these general principles did not provide the structure necessary to improve testing conditions on a global scale. To solve this problem, AMTSO has driven a cross-industry effort to develop globally applicable testing standards and a related accreditation program. This standard is based on a premise that although testers and vendors must retain their independence, proper anti-malware testing cannot occur if the relationship is adversarial. We believe that the AMTSO standards and accreditation program has the potential to create a higher level of customer trust through more consistent testing and improvement in industry behavior, and by helping to ensure that anti-malware solution testing is open, transparent, fair, accurate, and reliable.

Suggestions for improvement of this standard are welcome. They should be sent to the Chairperson of the AMTSO Standards Committee via email to: [standards@amtso.org](mailto:standards@amtso.org).

AMTSO Standards Committee

The following members of AMTSO’s Standards Committee participated in the development, review and approval of this standard. The affiliated organizations are listed to demonstrate the openness and balance of the committee. Approval of this standard by the individuals listed does not imply endorsement of the affiliated organization.

|  |  |
| --- | --- |
| **Name of Representative** | **Affiliation** |
| *Bhaarath Venkateswaran* | *NSS Labs* |
| *Brad Albrecht* | *CrowdStrike* |
| *Chad Skipper* | *Cylance* |
| *Dennis Batchelder* | *AppEsteem Corporation* |
| *Jaimee King* | *AMTSO* |
| *Jiri Sejtko* | *AVAST Software* |
| *John Hawes* | *Virus Bulletin* |
| *Mark Kennedy* | *Symantec Corporation* |
| *Peter Stelzhammer* | *AV Comparatives* |
| *Simon Edwards* | *SE Labs* |
| *Evgeny Vovk* | *Kaspersky Lab* |

The following members of the AMTSO Board of Directors have approved this standard. Approval of this standard by the individuals listed does not imply endorsement of the affiliated organization.

|  |  |
| --- | --- |
| **Name of Director** | **Affiliation** |
| *John Hawes* | *Virus Bulletin* |
| *Mark Kennedy* | *Symantec Corporation* |
| *Peter Stelzhammer* | *AV Comparatives* |
| *Eddy Willems* | *G Data* |
| *Dodi Glenn* | *PC Pitstop* |
| *Vyacheslav Zakorzhevsky* | *Kaspersky Lab* |
| *Glaucia Young* | *Microsoft Corporation* |
| *Simon Edwards* | *SE Labs* |
| *Righard Zwienenberg* | *ESET* |

The following organizations, which are members of AMTSO, have approved this standard.

LIST OF MEMBERS THAT APPROVE HERE – with their consent to publicly list their names

**Table of Contents**

Testing Protocol Standards for the   
Testing of Anti-Malware Solutions

Important Notice: AMTSO standards establish process guidelines for fairness in the testing process. They are not intended to, nor do they, assure the accuracy of test results or ensure the security of any party, or legal compliance with any federal, state or local restriction or law. Implementers of AMTSO standards are responsible for determining and complying with all applicable rules and regulations.

This AMTSO document is made available for use subject to important notices and legal disclaimers. These notices and disclaimers appear on page 2, and may also be obtained on request from AMTSO.

1. **Overview**
   1. **Scope**

The standards for anti-malware solution testing include requirements for both testing protocols for testers and testing compliance for vendors. AMTSO will offer accreditation for publicly-released anti-malware tests that successfully demonstrate compliance with this standard. Although anti-malware tests with non-public results will not be accredited by AMTSO, all testers and vendors may benefit by following these testing protocols for any public or private test.

* 1. **Purpose**

AMTSO recognizes the need for independent product testing for end users to adequately understand the differences in security products and to validate their claims in the market. Fair product testing is the cornerstone to achieving this goal, and is more effective through cooperation and participation with both Testers and Security Product Vendors. Therefore, the purpose of this standard is to help improve the transparency and fairness of anti-malware tests that are made publicly available. Additional purposes include: providing testers with fair access to solutions to test; encouraging more voluntary participation by vendors; establishing methods for vendor notification; supporting disclosure of provenance and curation strategy, and vendor access to test samples; and establishing processes for conflict resolution; and encouraging real-world scientific tests, that are reproducible, statistically valid, and objective.

This standard serves as the foundation for the AMTSO testing accreditation program, established to help ensure reliability of compliance assertions made in connection with validation of an anti-malware solutions test.

1. **Informative References, Definitions and Acronyms** 
   1. **Informative References**
      1. The following documents, in whole or in part, are referenced in this document and are important for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.
         1. AMTSO - Best Practices for Dynamic Testing
         2. AMTSO - Best Practices for Testing In-the-Cloud Security Products
         3. AMTSO - Guidelines for Testing Protection Against Targeted Attacks
         4. AMTSO - Guidelines on Facilitating Testability
         5. AMTSO - Guidelines to False Positive Testing
         6. AMTSO - Issues Involved in the “Creation” of Samples for Testing
         7. AMTSO - Performance Testing Guidelines
         8. AMTSO - Sample Selection for Testing
         9. AMTSO - Suggested Methods for the Validation of Samples
         10. The AMTSO Fundamental Principles of Testing
         11. AMTSO - Whole-Product Testing Guidelines
   2. **Definitions**
      1. **AMTSO Member**. Individual or entity that has been accepted as a member of AMTSO and has met the current requirements for membership, including payment of annual membership fees.
      2. **Anti-Malware**. Products and services designed specifically to eliminate malware. Anti-malware solutions may offer standalone protection, or may be incorporated into suites of products and services.
      3. **Board.** The Board of Directors of AMTSO.
      4. **Classification**. The designation given to a sample, generally indicating whether the sample is considered to be malicious.
      5. **Cloud**. The term’s “cloud” and “in the cloud” refer, respectively, to the internet (or other resources external to a protected system) and to resources and technologies run or served from there – online detection databases reputation system, black- and whitelists, managed services and so on.
      6. **Collection**. Collection is the process of gathering/selecting the files, URLs or other objects to be used as samples in test cases.
      7. **Validation** is the process of making sure that the samples to be used function properly in the defined testing environment.
      8. **Commencement Date of a Test.** The Commencement Date of a Test shall be the date that a final date of products selection and/or their submission into a test, after which the test commences execution.
      9. **Curation**: Curation includes the process of collection, validation, and classification of samples.
      10. **Draft Standard.** A draft document that will be subjected to final review and approval by AMTSO members and the Board.
      11. **Editorial Revision.** A change made to the test of a standard to improve the clarity or preciseness of the language or to correct a typographical or grammatical error.
      12. **Malware**. Malware includes, without limitation software or other electronic data designed to, or otherwise capable of, infiltrating and/or damaging a computer system and/or user data (such as computer viruses, worms, trojan horses, ransomware, spyware and similar computer contaminants or data destroyers).
      13. **Participant**. An individual or Vendor that has a product or service either owned or licensed by it included in an anti-malware test.
      14. **Private Test**. An anti-malware test where the Tester and its Participants have no intent to publish or publicly reference its existence or its results.
      15. **Public Test**. An anti-malware test where the Tester or its Participants intend to publish or publicly reference its existence or its results.
      16. **Standard.** A term generically used in this document to reference testing protocol requirements, specifications, recommended practices and guidelines, published in accordance with established procedures.
      17. **Test Plan**. A plan, provided by a Tester, that complies with Section 4 of these Standards.
      18. **Tester**. An individual or entity that conducts tests on anti-malware products or services to establish functionality, effectiveness, comparative results, compliance, or other determinations.
      19. **Vendor**. An organization that sells or plans to sell anti-malware products and solutions.
      20. **Voluntary Participant**. A Participant that has provided notification to the Tester that it wishes to voluntarily cooperate in the manner designated in the Test Plan, and has complied with the AMTSO Voluntary Participant Requirements, set forth in Section [7], below.
   3. **Acronyms**
      1. **AMTSO:** The Anti-Malware Testing Standards Organization, Inc.
      2. **FTC**: Federal Trade Commission.
      3. **SWG:** The Standards Working Group within AMTSO.
2. **AMTSO Contact List**
   1. Vendors that have any product or solution that may be included in any public test, and Testers that intend to conduct any public test, should provide up-to-date contact information to AMTSO for inclusion on the AMTSO Contact List.
      1. The AMTSO Contact List shall be hosted on the amtso.org website and shall be maintained by AMTSO.
         1. To provide a contact, Vendors and Testers should submit their information via the AMTSO Contact List portal at [www.amtso.org](http://www.amtso.org).
         2. The provided contact may include an email alias that includes a series of persons from one particular Vendor or Tester. However, each Vendor and Tester that includes such an alias is responsible to maintain such alias and obtain any necessary consents for inclusion on the list.
         3. It is the responsibility of the submitting party to ensure their contact information is current. The information can be updated through the AMTSO List Portal.
      2. A Vendor or Tester does not need to be an AMTSO member to include their contact information on the AMTSO Contact List.
      3. The AMTSO Contact List shall only be available to AMTSO Members that have provided their current contact information to the AMTSO Contact List.
         1. AMTSO Members shall protect the Contact List from disclosure to any third-party.
      4. AMTSO shall not be responsible for the accuracy of contact information provided by any Vendor or Tester.
   2. Testers are entitled to rely on information provided in the AMTSO Contact List, and shall not be responsible to take further efforts to provide proper notification if current contact information has not been provided.
3. **Notification of Test Plan**
   1. Testers shall provide notification of a Test Plan to all potential participants by either:
      1. Sending notification directly to the potential participant through use of contact information included on the AMTSO Contact List (described above) or otherwise provided by a potential participant; or
      2. Through public notification of the Test Plan, in compliance with Section [5], below. on the AMTSO website, and provide the Test Plan directly to such participants upon their reply.
   2. A Tester that provides public notification on the AMTSO website shall meet its obligation for public notification of a Public Test, regardless of whether a potential participant is in actual receipt of such notification prior to a test.
4. **Public Test Notification Requirements**
   1. If a Tester has opted to provide public notification of the Test Plan, the Tester shall make such posting on the AMTSO website, and shall:
      1. Post public notification of the Test Plan for all potential participants no more than two (2) months, and no less than five (5) days, before the Commencement Date of a test.
      2. AMTSO shall provide notification to all parties registered on the AMTSO Contact Page of the posting of any public Test Plan.
         1. *Informative Reference*. Testers that provide direct notification to potential participants through use of contact information on the AMTSO Contact List do not have any waiting period for commencement of a test. The waiting period is instituted for public notification to ensure that all parties have an equal opportunity to know the notification was posted.
   2. The Test Plan shall either be for a single plan for a single test, or for a plan that covers multiple potential tests with potentially different combinations of vendors.
   3. All potential participants are encouraged to provide their product or solution as requested by any Tester, whether it be freely provided, provided for cost, or otherwise.
      1. Potential participants may notify Tester that they do not want their solution included in the Test. Tester is not required to comply with such request.
5. **Test Plan Requirements**
   1. The Test Plan shall include the following information:
      1. A stated intent by the Tester to follow these AMTSO standards.
      2. The purpose of the test.
         1. *Informative Reference.* AMTSO Guidelines for Testing Protection Against Targeted Attacks. For the purpose of the test to be clear and valid, it is necessary to define both the types(s) of solutions being tested, and the type(s) of threats those solutions will be tested against.
      3. The Commencement Date of the test, or a range of dates of the test, which shall commence no later than two (2) months from the date of the Test Plan.
      4. If the Tester requires Vendor action such as product submission and dispute resolution, the Tester shall provide a reasonably approximated schedule with key dates for such action.
         1. If the Tester wishes to ensure that they have the latest build of a product or solution, they may provide a submission date for participation. Otherwise, Testers may download the latest build from the Vendor’s public website at the beginning of the test.
         2. The Tester shall provide all participants with an equal amount of business days to take action, taking into account recognized national holidays.
      5. A clear definition of the test environment which shall include:
         1. A statement of representation approximating the test environment;
         2. A statement of methodology
            1. *Normative Reference*: AMTSO Fundamental Principles of Testing: Principle 6: Testing methodology must be consistent with the testing purpose.
      6. A statement of intention of the products and/or solutions to include in the test, including versions, configuration, and whether the whole or a part of the product/solutions will be tested.
         1. *Informative Reference*. When running solutions over long periods of time, version information may not be available or may change as various components are updated. Testers should provide a policy of how this will be handled as part of the test methodology in the test plan. AMTSO Best Practices for Testing in-the-Cloud Security Products.
      7. An overview of the test’s scoring and certification plan.
      8. Instructions on how the test results can be disputed.
      9. Instructions, if any, on how a vendor may become a Voluntary Participant.
         1. A Tester must provide participants with the option to be Voluntary Participants, as set forth in these standards, but a Test is not required to have any Voluntary Participants.
      10. A “reasonable” amount of information on sample provenance and sample collection strategy.
          1. *Informative Reference.* A “reasonable” amount shall be an amount that will provide the Participant with enough information to understand where the samples originated, and how they will be curated, but not so much information as to be administratively burdensome for the Tester.
      11. A clear description of how samples will be validated and classified.
          1. *Informative Reference*. Testers should use only samples and test cases which can be provided to Participant for independent validation, or for which all participants can be provided with both adequate evidence of accurate curation, and adequate information to enable the participant to remediate any shortcomings in their solution.
          2. Testers may limit vendor participation in sample curation to only include Voluntary Participants. If this limitation is provided, then all Voluntary Participants must be given equal access to such curation processes.
   2. The Test Plan may provide Vendors the option to “opt out” of a public test. If the Test Plan includes this option, and a Vendor chooses to “opt out”, the Tester shall not include the Vendor in that specific Test.
      1. *Informative Reference*. In the interests of clarity, Tester are not required to include an “opt out” provision in the Test Plan; however, if they do include this option, they must honor the determination of the Vendor for the specific Test.
   3. The Test Plan may include instructions for potential participants to provide the following “Specific Data” regarding the product or solution to be included in the test:
      1. Disclosure for each product or solution included in the test which data is transmitted to the cloud.
      2. An Application Program Interface (API) for the product or solution to access the Vendor’s cloud.
   4. The Test Plan may include a requirement that any disputes from a participant must be accompanied by an element of proof, or evidence that the dispute is legitimate, rather than just the participant’s statement of disagreement.
6. **Voluntary Participants.** In response to the Test Plan, all Vendors may choose to become a Voluntary Participant, by providing notification to the Tester in the manner designated in the Test Plan and complying with the AMTSO Voluntary Participant Requirements, set forth below.
   1. **Voluntary Participant Disclosure Requirements**. A Voluntary Participant shall provide the following disclosures to the Tester:
      1. The Specific Data, defined in Section [6.3] above.
      2. Any existing product feature either specifically designed to preclude accurate testing or that the Vendor knows has that effect.
      3. Any known or anticipated “variances” between the product or solution acquired or submitted to the Tester for inclusion in the test, and the final product that will be provided to the end user.
         1. “Variances” shall include all non-routine changes or configurations to a product or solution, that causes a material difference between the product or solution that has been included in a Test, and that which is provided to the end user.
         2. “Variances” do not include any routine product or solution updates or upgrades.
            1. *Informative Reference.* This standard is intended to address the “Golden Sample” issue, in which products and solutions may be provided for testing that are not representative of the product or solution that will be provided in actual production and delivery to the end user.
      4. Any material conflict of interests or other information that could materially impact the reliability of the test.
         1. *Informative Reference.* A conflict of interest is a situation in which financial or other personal considerations have the potential to compromise or bias professional judgment and objectivity. An “apparent conflict of interest” is one in which a reasonable person would think that the professional’s judgement is likely to be compromised. A “potential conflict of interest” involves a situation that may develop into an actual conflict of interest. Please note that the existence of a conflict of interest does not mean that there is any misconduct. Misconduct in testing is limited to fabrication, falsification and plagiarism. A conflict of interest only implies the potential for bias, not a likelihood.[[1]](#footnote-1)
      5. Any unlicensed third-party intellectual property in the product or solution being tested.
         1. A Tester may rely on the assertion or omission of a Voluntary Participant regarding the use of any third-party intellectual property included in the product or solution to be tested.
   2. In completing the disclosure requirements, a Voluntary Participant may provide an “exceptions” list, identifying specific disclosed items that are precluded from public disclosure.
      1. *Informative Reference*. The “exceptions” list is meant to provide a method for a Voluntary Participant to provide information to the Tester that is protected by confidentiality. In general, any information the Tester discovers regarding the tested product or solution may be made part of the Tester’s public test results. The intention with this provision is to encourage open and honest disclosure by the Voluntary Participant to improve the potential for accurate test results.
   3. Voluntary Participants shall provide “timely” and “relevant” responses to Tester inquiries.
      1. A “timely” response shall be provided within five (5) business days of the receipt of the request from the Tester.
      2. A “relevant” response shall be one that directly addresses the subject of the request from the Tester.
   4. Voluntary Participants shall provide the Tester with a complete and executed Voluntary Participant Attestation, in substantially the form provided on the AMTSO website, which shall state that the participant has complied with all Voluntary Participant Requirements, including any exceptions.
   5. Vendors who do not notify the Tester of their intention to be a Voluntary Participant, or who do not follow the Voluntary Participant Requirements, are not considered to be Voluntary Participants, and have no Voluntary Participant rights as defined here and below in Section 9.
   6. A Voluntary Participant may cease complying with the Voluntary Participant Requirements, and thus no longer be a Voluntary Participant, at any time prior to completion of the testing process.
   7. While a Tester may charge for participation in a test, at no point shall a Tester charge an additional fee for any potential vendor to become a Voluntary Participant.
      1. *Informative Reference*. This standard is to make clear that there shall not be any extra changes from the Tester for the Vendor to follow AMTSO standards.
7. **Behavior During a Test.** 
   1. **Participant Behavior During a Test**.
      1. All participants in a test are prohibited from revising their products or solutions while a test is knowingly being conducted with the “specific intent” of impacting the test results.
         1. “Specific intent” refers to an intentional plan or action by the participant to impact the performance or results of testing such participant’s product or solution, or the performance or results of any other participant’s product or solution.
         2. If any general improvements are made to any products or solutions, such improvements should be disclosed to the Tester.
         3. *Informative Reference*. This standard does not prohibit any general improvements meant for the end user, such as standard cloud updates. Rather, it is meant to address behavior by a vendor to adjust a product and specifically skew test results.
      2. Vendors are encouraged to keep testers informed of any changes to how products operate which may affect the running of ongoing tests. Significant changes would include areas such as (i) logging format, (ii) the style and position of prompts or pop-ups, (iii) default configurations; and (iv) system requirements.
         1. *Informative Reference.* AMTSO Guidelines to Facilitating Testability, AMTSO strongly encourages open and timely communications between testers and vendors, particularly on issues which may affect how tests can be run.
   2. **Tester Behavior During a Test.** 
      1. Testers shall test all participants’ products and solutions included in any test fairly, regardless of whether the test was commissioned and who commissioned the test.
         1. *Informative reference* - providing sample sets due to be used in tests to some but not all participants prior to testing is unfair
      2. Testers shall disclose any anticipated inequity to test participants, including any known material conflicts of interest or other information that could potentially make the testing methodology or results unequal as between participants.
      3. After a test run, testers shall retain logs of material testing procedures for verifications and disputes for a pre-determined period of time.
         1. *Informative Reference*. AMTSO Best Practices for Dynamic Testing. In dynamic tests, the behavior of malware is crucial to how the products perform, therefore, it is important for the tester to have adequate logging and auditing of how the test proceeds. At the very least, this should cover: (i) the actions the malware takes on the infected/compromised machine; (ii) modifications made to files, registry and system areas; and (iii) traces of network activity.
         2. *Informative Reference*. Please refer to AMTSO Guidelines on Facilitating Testability, Section 2, Logging, for a full description of details recommended to be included in logs, including: (i) an event occurred; (ii) time of event; (iii) a unique event ID or reference; (iv) event category or description; (v) source or originator of the event; (vi) threat id/classification; (vii) actions taken; (viii) time taken between event and response/action. Additional examples of product-related content for logging: (i) initialization time; (ii) update time/version; (iii) version information.
      4. If significant anomalous issues are detected during a test run, Testers shall attempt to contact the participant to debug the situation, rather than simply stating that the product or solution is defective.
         1. *Informative Reference.* This standard is intended to prevent a Tester from ignoring an obviously flawed configuration or test and encouraging the Tester to instead work with the participant to ensure the product or solution is fairly and accurately tested. A “significant anomalous issue” shall include an issue that a reasonable tester would know to be notably inconsistent with the anticipated behavior of a solution.
      5. After completion of a test run, Tester shall notify all participants in the test, and are encouraged to provide initial results to each participant.
         1. *Informative Reference.* AMTSO Guidelines on Facilitating Testability. Testers are encouraged to provide vendors taking part in their tests with adequate information to diagnose and, ideally, to rectify any problems reported in tests – for example, failure to detect or block attacks.
8. **Behavior After Completion of a Test**.
   1. **Participant Behavior After a Test**
      1. Voluntary Participants shall have the right to audit their solution configuration.
         1. The audit of the solution configuration may be through reviewing relevant portions of the Tester’s log.
            1. AMTSO encourages Testers to provide Vendors with access to the testing environment to validate configuration
         2. Voluntary Participants that request any logs of material testing procedures for verifications and disputes must provide human-readable (unencrypted) logs and instruct the tester how to enable logging.
         3. Testers shall provide product logs to the Vendors upon request.
            1. Testers are not required to provide product logs that include certain sensitive information including: host name, user-name, IP addresses, user-identification numbers and any PII. However, such information should be denoted with a statement that it has been deleted to protect confidential Tester intellectual property.
      2. Test Commentary
         1. Voluntary Participants shall have the right to attach commentary to the test regarding the test and their specific solution results in a meaningful way.
         2. Participants other than Voluntary Participants may attach commentary to the test solely with regard to the specific reason that such vendor is not participating in the test as a Voluntary Participant.
         3. Commentary shall be included with the test via hyperlink or otherwise in reference to the AMTSO website, which shall include the name of the test, the test results (which may be behind a paywall or otherwise restricted) and the participant commentary.
         4. AMTSO shall monitor and moderate all commentary provided in this regard.
      3. All participants shall comply with AMTSO deadlines on commentary submission, as defined on the AMTSO website.
      4. All participants shall adhere to both AMTSO and other contractual guidelines, as defined on the AMTSO website, on the publication of test results.
   2. **Tester Behavior After a Test**
      1. Testers shall present public test results in a way that is clear and understandable to prevent the results from being deceptive, unfair or misleading.
         1. *Informative Reference.* Any parties publicly using the Test results are directed to follow the basic principles of advertising law, which state: (1) advertising must be truthful and not misleading; (2) advertisers must have evidence to back up their claims, and (3) advertisements cannot be unfair[[2]](#footnote-2).
      2. The publicly released final test results shall include:
         1. A “usage statement” which covers AMTSO’s standards.
         2. Detailed information on the specific products and/or solutions included in the tests, including version details.
            1. *Informative Reference.* AMTSO Best Practices for Testing in-the-Cloud Security Products.
         3. Material conflicts of interest by participants and the tester, or other commissioning parties with regard to the particular test at issue.
         4. Any Voluntary Participant “disclosures” that have not been excepted as confidential.
         5. How the test was (or will be) funded.
         6. Other services that the tester may offer that could have been accessed or consumed by a vendor.
         7. A reference to the Test Plan.
         8. Data regarding the tests run, including date and time, in a standard format so the results are clear and can be easily understood.
         9. Guidance on how and if the test can be validated.
         10. Clear parameters on how Test Results can be used, e.g., sharing excerpts of results must be linked back to the source.
         11. Specific scores/certifications and any clarifying statements of statistical relevance.
         12. A hyperlink to the AMTSO website for readers to obtain “Additional Information” about each Public Test.
             1. *Informative Reference.* This standard allows critical additional information from both the Tester and participating vendors to remain accessible, even if included separately from the results.
             2. To ensure effectiveness of this standard, Tester must ensure the hyperlink: (1) is obvious; (2) appropriately shows the importance, nature and relevance of the information it leads to; (3) is placed close to the relevant information that it is qualifying to ensure that it is noticeable, and significant scrolling is not necessary; (4) takes the end user directly to the disclosure on the click-through page.
             3. Testers may choose to assess the effectiveness of the hyperlink by monitoring click-through rates and other information about end user usage and make changes accordingly.
      3. Tester shall provide AMTSO with appropriate data to run the accreditation process that is not otherwise included in the publicly released final test results, including the Test Plan, test results, commentary received and dispute statistics.
      4. Tester shall provide AMTSO with a complete and executed Tester Attestation, in substantially the form provided on the AMTSO website, which shall state that the Tester has complied with all AMTSO standards required for accreditation of the Test.
      5. Tester shall notify AMTSO about the discovered material misuse of any test results, and should respond to the alleged abuser, as appropriate.
      6. Tester shall make timely amendment to any test results that are still within any “dispute period” as necessary, based on material new information or the resolution of disputes.
      7. Tester shall ensure that any party with rights to any test results shall adhere to the contractual requirements of such test, if applicable, and AMTSO guidelines regarding publication of the test results, as set forth above.
9. **AMTSO Requirements**. As an organization, AMTSO has agreed to undertake certain obligations to help drive this standard and the related conformity assessment program. Thus, AMTSO has agreed that it:
   1. Shall develop and maintain testing protocol standards, which shall include regular review and updating of standards, as appropriate and necessary.
   2. Shall host a repository for all vendor and tester contact information, voluntarily provided and updateable by each party.
   3. Shall host a site where testers can post public test plans, and link back to the tester’s site for each test.
   4. Shall provide notice to AMTSO members and others regarding the posting of any open test plan.
   5. Shall timely complete the accreditation process for submitted tests.
   6. Shall host public test pages for all tests that successfully pass AMTSO’s accreditation process. The page will include the test plan, participants and their status, the tester, vendor commentary, and dispute results, if the test used a sample set curated by the participating vendors.
   7. Shall provide support and resolution to testers and vendors with regard to questions regarding compliance with AMTSO standards.
   8. Shall respond in a timely manner to inquiries regarding any accredited test or tester, including regarding allegations of improper behavior.
   9. Shall publicly defend a properly accredited test when accusations of improper behavior are settled.
   10. Shall help facilitate arbitration between vendors and testers, as appropriate and as necessary.
   11. Shall help resolve issues regarding improper use of test results.
   12. Shall serve as an advocate for the rights of testers to have access to and test all anti-malware solutions.

APPENDIX

[these sections will be resolved as part of the pilot process]

1. **AMTSO Conformity Assessment Process**. Process for assessing conformity to standards – to follow once developed:
   1. How we are fed information
   2. Lab qualification
   3. External or internal committee review
   4. Issue arbitration procedures
2. **Tester Accreditation Program** 
   1. Process of Requesting Accreditation
      1. Pre-Test Attestation
         1. Voluntary Participant:
            1. Attests that they will follow the standard, including all disclosure
         2. All Potential Participants
            1. Opportunity to submit arbitration request if notified that a solution will be included in a test the Participant deems inappropriate.
         3. Tester:
            1. Attests that they will follow the standard.
      2. Post-Test Attestation
         1. Tester
            1. Attests that standard was followed
         2. All Participants:
            1. Arbitration Request: may be submitted for ……..[specific reasons].....
3. **Arbitration Board**
   1. Formation of Board
   2. Requests for arbitration
      1. Based on:
         1. Standard was not followed
         2. Non-compliance with disclosure requirements
         3. Non-compliance with notification requirements
         4. Other
   3. Response to arbitration
      1. By non-requesting party
   4. Arbitrator Inquiry
      1. Questions to both parties
      2. Arbitration Board meetings
   5. Opinion Issuance
      1. Majority Opinion published
      2. Dissenting Opinions may also be published

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

This document was adopted by AMTSO on DATE

1. <http://ori.hhs.gov/education/products/columbia_wbt/rcr_conflicts/foundation/> [↑](#footnote-ref-1)
2. **See *FTC Policy Statement on Deception, appended to Cliffdale Associates, Inc.* 103 F.T.C. 110, 174 (“Deception Policy Statement”), which states, in part, an ad is deceptive if it contains a statement, or omits information, that is likely to mislead consumers acting reasonably under the circumstances and is “material” or important to a consumer’s decision to buy or use the product.**  [↑](#footnote-ref-2)