

SNIA Conformance Test Program (SNIA-CTP) And SNIA Storage Management Initiative (SMI) Fact Sheet

Storage Area Networks (SANs) provide the opportunity to use storage resources in a cost effective manner.

Management of a multi-vendor SAN requires the use of a suite of applications from multiple vendors that need to be coordinated and integrated efficiently.

What is SNIA-CTP?

In July of 2003, the Storage Networking Industry Association (SNIA) completed version 1.0 of the Storage Management Initiative Specification (SMI-S) which defines an open interface for the management of storage networks. All storage vendors contributed 200 of the world's leading engineers to develop the SMI-S standard.

At the same time as the specification was being developed, SNIA began launching the SNIA Conformance Test Program (SNIA-CTP). SNIA-CTP consists of master test suites that are developed, owned and operated by SNIA. These master test suites were developed by a subset of the engineers used to develop SMI-S providing the assurance of the test suites accuracy to the specification.

SNIA-CTP is an integral step to bringing third party standards conformance to the marketplace by providing end-users with a "trusted" verification process. SNIA-CTP ensures that storage vendors are following the interpretation of SMI-S accurately and in a common manner.

How does SNIA-CTP Test Products?

SMI-S is large in scope and covers a wide variety of storage devices and concepts. To create focus for developers, the specification has been

sub-divided into a series of profiles, i.e., storage array, fabric, server.

The SNIA-CTP test suites have been designed to test compliance of a vendor's SMI-S implementation to one or more of these profiles. Since there are a variety of devices being tested and the SMI profiles are based on WBEM (CIM and CIM-XL), each configuration will be tested from the CIM/xml client interface. Testing has sub-divided into the following groups:

1. Infrastructure – test infrastructure areas such as protocol and CIM server requirements.
2. Schema – test that all CIM meta elements required for the profile are present. This includes classes, properties, methods, qualifiers, associations and indications.
3. Instance Data – will retrieve data using all of the applicable intrinsic methods (.e.g, getInstance, enumerateInstances). Once data is retrieved, it will be verified and tested to ensure that it adheres to the rules defined by both CIM and SMI specifications.
4. Associations – tested by using both the association and instance intrinsic operations. Associations will be tested for all instance calls as defined in the Instance Data section above.
5. Indications – test to ensure that they can be subscribed to using the required filters. Functional testing for indications will be tested through recipes in a future version of the specifications.
6. Recipes – test instruction sets for making, doing or attaining something from various ingredients. The set of ingredients used by a particular receipt is scoped by the

profile or sub-profile in which that recipe is defined.

How Do I Start the SNIA-CTP Process?

- Download SMI specification from www.snia.org
- Identify people in your organization to start working the SNIA-CTP process (e.g., legal, marketing & product development)
- Build product to the SMI specification
- Participate in the SMI Lab program (optional)
- Download the SNIA-CTP agreements from www.snia.org/ctp
- Upon execution of agreements, access to test suites source is available
- Participate in plug fests during development cycle
- Validation schedule is completed on first-come, first served basis

How Can I Get Involved?

The greatest amount of involvement will come by participating in the SMI Technical Steering Group. This group creates the SMI standard which is used as the basis for the SMI test.

The SNIA hosts a program known as the SMI Lab. This program is designed to bring birds of a feather together to work with each other on development of SMI compliant software.

The early approach to establishing a standard interface was arduous and expensive. Companies would begin by defining an interface, supply API's to other companies and participants would work on their own to implement the standard. Since vendors participating in this process were competitors, a neutral space was required to host the "plug fest" event.

The SNIA Technology Center in Colorado Springs is a classroom and laboratory facility designed to provide access to resources and equipment for interoperability testing. SNIA hosts "plug fests" which are used by storage vendors to pre-test their implementation before entering formal SNIA-CTP testing. Use of the center minimizes time and costs associated with set-up and teardown of equipment. For more information on the Technology Center and how to participate, visit: www.snia.org/tech_center

Product Confidentiality

SNIA understand that security is paramount – especially when testing products not formally introduced. SNIA's privacy policies are as follows:

- No performance metrics will be published
- SNIA-CTP testing is pass/fail
- Interim test results are confidential and only released to the vendor requesting conformance testing.
- Pre-announced solutions that pass SNIA-CTP testing will not be published on SNIA-CTP web site until approved by vendor.

Pricing

Pricing Schedule and deliverables are available in the Request For Conformance Testing form located at www.snia.org/ctp.

Contacts

The SNIA-CTP has a program manager who is located at the Colorado Springs Technology Center. The program manager can be reached via phone at (719) 884-8901 or via e-mail at snia-ctp-admin@snia.org.