



BY Developers FOR Developers

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How to Increase Demand for Your Products with the Swordfish Conformance Test Program

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Disclaimer

- The information in this presentation represents a snapshot of work in progress within SNIA
- This information is subject to change without notice.
- For additional information, see the SNIA website: www.snia.org/swordfish



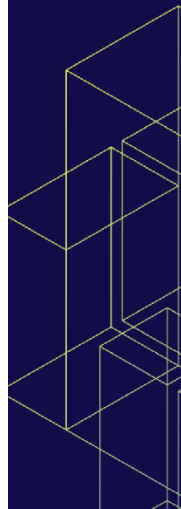
Abstract

- The SNIA Swordfish Conformance Test Program allows manufacturers the ability to test their products with a vendor-neutral test suite to validate conformance to the SNIA Swordfish specification.
- This session will provide an overview of the program, what functionality implementations and base requirements are needed for implementations to pass the initial version of Swordfish CTP. It will also cover the program features, additional benefits and how to participate.



What is CTP?

- Definition of conformance
- Scope of program
 - Initial functionality vs later intent
 - Relationship to SMI, SM Lab
- Program Design
 - Process Overview
 - How to submit
 - Conformance Results and CTP Logo / Usage
- Test framework
 - Open source
- Tests to pass
 - Basic Redfish
 - Swordfish



Why Do SNIA Swordfish CTP?

- Vendor/Manufacturer benefits:
 - Reduced integration costs with partners
 - Meet customer demand for standards-based solutions
- End User/Customer benefits:
 - Objective testing verified in a vendor-neutral manner
 - Ensured product conformance to industry standards
 - Lower cost of ownership
 - Help to prevent vendor lock-in
 - Improved interoperability of multi-vendor products

What is Swordfish CTP?

- Swordfish CTP:
 - A vendor-neutral test suite to validate conformance to the SNIA Swordfish Specification
 - Uses the Redfish specification, Swordfish Specification and published Swordfish Profiles to determine compliance
 - Profiles define required subsets of functionality that implementations can advertise as customer “Features”
 - Each Feature corresponds to key customer functionality

About the Swordfish CTP Program

- Many similarities to the SMI-S CTP Program by design:
 - Based on client features, which map to detailed profiles to verify
 - Automated test framework to support testing different profiles and reporting results
 - Works in concert with SM Lab and plugfests
- What's new:
 - Open-source based test framework, leveraging Redfish tools
 - More automation!
 - Targeting a completely automated test submission, validation and publication process
 - More marketing opportunities for program and participants

Overview: Swordfish CTP

- Program uses an open-source test framework
 - Leverages Redfish test framework (and many RF tests)
 - Swordfish CTP enhancements will also be contributed
- Combination of base Redfish compliance and Swordfish tests
- Program focus is Swordfish value-add tests:
 - Features Tests based on Swordfish published features
 - Features are detailed in profiles (written using Redfish JSON profile spec)

Relationship to SM Lab

- Swordfish SM Lab should have a symbiotic relationship with the Swordfish Conformance program
 - Participants can use the SM Lab to test their own products as well as interoperability with the latest and greatest versions of other companies' products.
 - Regular automated results reporting of available infrastructure
- Discounts for dual participation
- Support for both physical and virtual participation (e.g., virtual plugfests)

Test Submission Model

- Self-test and validation
 - Participants run tests against their own equipment / software, submit test results to SNIA / SMI to validate and post on the Swordfish site as certified results
 - Process will (*eventually*) be completely automated (with audit process) – results submitted through online portal, processed through automatic validation process, then automatic results created for review before publishing
 - If no issues with review process, may move to completely automated at some point

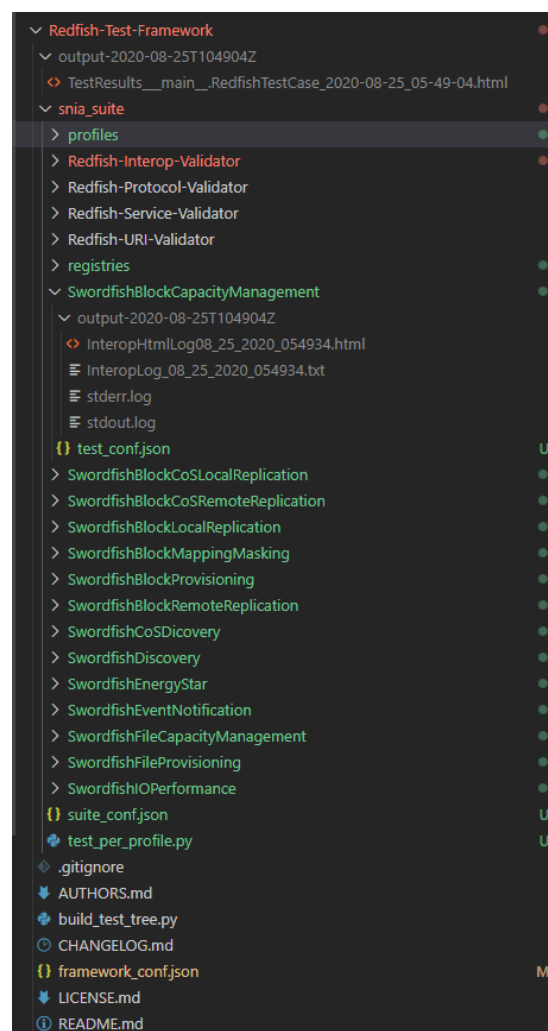
CTP Logo and Version

- The CTP Program logos (available soon) will be numbered, and will correspond to the versions of Swordfish that the TWG chooses to release as SNIA Technical Positions
 - This approach should be much easier for clients to match your implementations with than the somewhat cryptic test versions used by SMI-S CTP
 - With identifiable logos to use in marketing materials

Test Framework Overview

Test Framework

- The test framework leverages the “Redfish-Test-Framework”, an open source framework from the Redfish Forum
- Enhancements (some work in progress, some TBD):
 - Customization of protocol validator for Swordfish vs Redfish service requirements
 - Documentation for use
 - Bundling / configuration for Swordfish-specific installation and deployment
 - SNIA authenticated self-run test result mechanism (e.g., certificate based authentication for CTP members for submitted test results)



Test Results

- Test Results:
 - Summary results available from individual test runs
- From final / validated test results, these results will be transformed into results posted online at snia.org/ctp
 - Results will be categorized as Base Redfish, and by Swordfish Feature – only “passed” features published

Unittest Results

Start Time: 2020-08-25 05:49:04

Duration: 112.55 s

Summary: Total: 17, Pass: 13, Fail: 4

__main___.RedfishTestCase	Status
test_snia_suite_Redfish_Protocol_Validator	Pass
test_snia_suite_Redfish_Service_Validator	Fail View
test_snia_suite_Redfish_URI_Validator	Pass
test_snia_suite_SwordfishBlockCapacityManagement	Pass
test_snia_suite_SwordfishBlockCoSLocalReplication	Pass
test_snia_suite_SwordfishBlockCoSRemoteReplication	Pass
test_snia_suite_SwordfishBlockLocalReplication	Pass
test_snia_suite_SwordfishBlockMappingMasking	Pass
test_snia_suite_SwordfishBlockProvisioning	Pass
test_snia_suite_SwordfishBlockRemoteReplication	Pass
test_snia_suite_SwordfishCoSDiscovery	Pass
test_snia_suite_SwordfishDiscovery	Pass
test_snia_suite_SwordfishEnergyStar	Fail View
test_snia_suite_SwordfishEventNotification	Fail View
test_snia_suite_SwordfishFileCapacityManagement	Pass
test_snia_suite_SwordfishFileProvisioning	Pass
test_snia_suite_SwordfishIOPerformance	Fail View

Total: 17, Pass: 13, Fail: 4 -- Duration: 112.55 s

Ready to Participate?

- We are working with companies now to “test the tests”.
 - Please contact us at storagemanagement@snia.org if you are interested in joining the SNIA Swordfish CTP Program
- Full program launch coming soon...

Thank you for watching

- **SNIA Swordfish™ Standards**
 - Schemas, Specs, Mockups, Users Guide, Practical Guide & more
<https://www.snia.org/swordfish>
- **Redfish / Swordfish Specification Forum**
 - This is where you can ask and answer questions about Redfish and Swordfish
 - <http://swordfishforum.com/>
- **Scalable Storage Management (SSM) TWG**
 - Technical Work Group that defines Swordfish
 - Influence the next generation of the Swordfish standard
 - Join SNIA and participate: https://www.snia.org/member_com/join-SNIA
- **Join the SNIA Storage Management Initiative**
 - Unifies the storage industry to develop and standardize interoperable storage management technologies
 - <https://www.snia.org/forums/smi/about/join>





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