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FOR IMMEDIATE RELEASE

SNIA SSSI Solid State Storage Performance Test Specification Available For Public Review

New Performance Specification Takes a Big Step Forward in Enabling Comparison of Solid State Storage Devices for Enterprise and Client Environments

London, UK, 15th July 2010 – The Solid State Storage Initiative (SSSI) of the Storage Networking Industry Association (SNIA) today announced the availability of the Solid State Storage (SSS) Performance Test Specification (PTS) (version 0.9) for public review. The SNIA SSS Performance Test Specification defines a suite of tests and test methodologies necessary to enable comparative testing of individual SSS device performance to facilitate broader market adoption of solid state storage technology within both the client and enterprise computing environments.

The public review phase is a 60-day period during which the proposed specification is publicly available and feedback is gathered across the worldwide storage industry. Upon completion of the public review phase, the SNIA Solid State Storage Technical Work Group (SSS TWG) will remove the SSS PTS from the web site, consider all submitted feedback, make the appropriate modifications, and publish version 1.0 of the ratified SSS Performance Test Specification.

“Until now, there was no industry standard test methodology or specified test environment for measuring solid state storage device performance,” said Eden Kim, SNIA SSS TWG Chair. “As a result, each solid state storage manufacturer uses different measurement methodologies to derive performance specifications for their solid state storage products. This makes it difficult for purchasers of SSS to compare products from different companies. This announcement is a major step forward in enabling purchasers of solid state storage devices to compare the performance of solid state storage products from different manufacturers on an ‘apples-to-apples’ comparison.”

A typical SSS device, taken “fresh out of the box” and exposed to a workload, experiences a brief period of elevated performance, followed by a period of transition to an eventual performance Steady State. The SSS PTS prescribes preparation methodologies and defines “Steady State” so that performance measurements can be taken in the Steady State performance region, which should be

representative of the device's performance during its normal working life. When executed in a specific hardware/software environment, the SSS PTS will provide measurements of performance that can then be fairly compared to those of other SSS products measured in the same way in the same environment.

Jim Handy, SSD Analyst for Objective Analysis added, "This new specification is a sure sign that the solid state storage market is maturing. The SNIA has done an admirable job of bringing all parties together to satisfy the needs of the SSD buyer by devising an unbiased benchmark that can be used to make a well-informed decision of which SSD to use."

The Test Environment

The SSS PTS specification itself is test hardware and software agnostic. The tests and methodologies assume nothing about the underlying test platform environment except specifying general requirements to ensure that there are no test hardware or software bottlenecks or unintended contributions to test measurements. However, while individual testers can run SSS PTS on their particular platform to compare the relative performance of SSS devices they are evaluating, in order for SSS PTS results to be compared on a true "apples-to-apples" basis, *across multiple testers*, a consistent test platform must be used.

The Solid State Storage Performance Test Specification includes a Reference Test Platform (RTP) that describes the test hardware, software, and tools used by the Technical Work Group to do the bulk of the research and validation of the Specification. The RTP is not required to run the SSS PTS tests; it is merely an example of a platform that has been confirmed to meet the SSS PTS platform requirements. Readers are encouraged to use the Reference Test Platform and/or any of the tools specified therein to generate data as prescribed and submit it to the SNIA Solid State Storage Technical Work Group (SSS TWG).

The 56 member SSS TWG has been working on the SSS PTS since early 2009. These companies represent solid state storage industry leading SSS manufacturers, SSS controller makers, test houses, and computer system OEMs.

How to Get Involved

All interested parties are encouraged to download the work-in-progress SSS PTS draft at <http://www.snia.org/publicreview/> and provide feedback at <http://www.snia.org/feedback/>. Comments received from the public review will be used to improve the specification. (Please note, work-in-progress DRAFTS of technical specifications are not endorsed by the SNIA for commercial shipping product implementation, but rather for review/feedback and prototyping work to ensure the work, when completed, will meet the needs of the Industry.) Status updates to the specification and related white papers can also be found at <http://www.snia.org/forums/ssi>.

About SNIA

The Storage Networking Industry Association (SNIA) is a not-for-profit global organisation, made up of some 400-member companies spanning virtually the entire storage industry. SNIA's mission is to lead the storage industry worldwide in developing and promoting standards, technologies, and educational services to empower organisations in the management of information. To this end, the SNIA is uniquely committed to delivering standards, education, and services that will propel open storage networking solutions into the broader market. For additional information, visit the SNIA web site at www.snia.org.

About SSSI

The SNIA Solid State Storage Initiative (SSSI) was formed to foster the growth and success of the market for solid state storage in both enterprise and client environments. It consists of various subcommittees focused on promoting the development of technical standards and tools, in order to educate users about the advantages of SSS devices. For additional information, visit the SSSI web site at www.snia.org/sssi.

About SSS TWG

Upon the recommendation of the SSSI, the SNIA Technical Council organised the Solid State Storage Technical Work Group (SSS TWG) to create a reference SNIA architecture and facilitate industry-wide adoption of common requirements, methods, and specifications in related standards organisations.

About SNIA Europe

The Storage Networking Industry Association (SNIA) Europe is dedicated to high-level knowledge exchange, thought-leadership and to promotion of the acceptance, deployment and confidence in open storage-related architectures, systems, services and technologies, across the IT and business community. To achieve this, SNIA Europe runs a coordinated series of activities at both pan-European and country-level to provide a central source of unbiased information on storage networking technologies. It is the voice of authority that delivers education and information on networked storage and associated technologies across Europe, Africa and the Middle East. SNIA Europe is a non-profit, vendor-neutral organisation run by its members, which include approximately 70 vendors, channel partners and individuals. For further information you can email euinfo@snia.org, contact +44 (0) 20 8785 5555, or visit www.snia-europe.org.

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Notes for editors

SNIA Europe Fact Sheet

The Storage Networking Industry Association (SNIA) Europe educates the market on the evolution and application of storage infrastructure solutions for the data centre through education, knowledge exchange and industry thought leadership.

Key Focus Areas:

- Storage in Virtualised environments
- Storage in Cloud environments
- Storage & Networking technologies

SNIA Europe is a non-profit, vendor-neutral organisation run by its members. The organisation represents manufacturers and the channel community across Europe. It actively recruits members to maintain a balanced and valued industry forum.

EDUCATIONAL RESOURCES AND EVENTS FOR STORAGE PROFESSIONALS

SNIA Europe provides a variety of ways to educate the IT professional on current industry hot topics and technologies.

- **Technology Education** - SNIA Europe develops and delivers technology-specific presentations for anyone interested in expanding their knowledge of the networked storage industry and the associated technologies and many industry events in EMEA.
- **SNIA Storage Networking Certification Program (SNCP)** provides a strong foundation of vendor-neutral, systems-level credentials that integrate with and complement individual vendor certifications. For more information, visit <http://www.snia-europe.org/certification/index.htm>
- **Webinars and Speakers Bureau**
SNIA technology experts regularly deliver webinars and technology presentations at industry events throughout Europe. Go to the SNIA BrightTalk channel (<http://www.brighttalk.com/webcasts/search/snia>) to view recent and upcoming webinars, or find out where SNIA Europe is scheduled to speak on <http://www.snia-europe.org/Home/events.htm>. To request a SNIA Europe presenter at your event, please send an email to euinfo@snia.org.
- **The SNIA Europe Datacenter Technologies Academy** is a series of comprehensive, free, one-day conferences designed to provide datacenter professionals educational programs on key storage infrastructure technologies and solutions. www.datacenter-academy.com
- **SNW Europe with Virtualisation World and Datacenter Technologies**
The largest fully independent conference integrating three key technology areas important to storage and datacentre professionals, SNW Europe is the place where IT managers and professionals can attend SNIA-endorsed education tracks on the latest storage technologies, get hands-on access to a wide range of solutions demonstrations, and mix with industry peers and technology experts who face similar IT storage and data management issues every day. For further information please visit www.snweurope.net; www.virtualizationworld.net; www.datacentertechnologies.net.
- **Storage Networking Times**
This monthly e-newsletter is written by SNIA Europe representatives and independent industry analysts. Each issue contains technology education articles, analyst briefings, a regional spotlight and articles relevant to storage technology end users. Storage Networking Times is a key resource for all EMEA IT professionals involved in storage networking. Download the latest version via: www.snia-europe.org/news/e_news.
- **SNS Europe / SNS UK Magazines**
SNS Europe & SNS UK magazines are the only industry publications endorsed by SNIA Europe. Our endorsement ensures that regular contributions from SNIA Europe and the SNIA Technology Forums and Initiatives bring readers the latest developments on Cloud Storage, Data Management, Ethernet Storage, Fibre Channel, Green Storage Solid State Storage, Storage Security, Storage Management and many other key topics on a regular basis. www.snseurope.com

THE PLACE FOR ALL THINGS STORAGE

The SNIA Europe website serves as a portal to key industry news and events, the latest developments in SNIA technology initiatives, industry and government standards, member company information, and a wealth of education resources such as tutorials, white papers and case studies, developed by both SNIA and its members. Other features include country-specific pages maintained by SNIA Europe's local committees; a member directory; and a playback facility for SNIA webcasts. For more information, please visit: <http://www.snia-europe.org>.

ABOUT SNIA EUROPE

SNIA Europe is led by a member-elected Board of Directors responsible for high-level strategy, direction, focus and region-wide activities. Four directors hold the officer positions of Chairman, Vice Chairman, Secretary and Treasurer. Other members of the Board are responsible for membership, events, marketing, education and country committee liaison:

The 2009-2011 Board of Directors is made up as follows:

Executive Committee

Chair:	Bob Plumridge, Hitachi Data Systems
Vice Chair:	Malte Rademacher, EMC
Secretary & Marketing Chair	Denise Ridolfo, NetApp
Treasurer:	Daniel Sazbon, IBM
Director:	Gilles Chekroun, Cisco
Director:	Aad Dekkers, MTI
Director:	Walter Moriconi, Oracle
Director:	Mike Murphy, Brocade
Director:	Thomas Pavel, LSI
Director:	Marcus Schneider, Fujitsu
Director:	Chris Sopp, HP
Director:	Ann Thueland, Dell

- **Country & Regional Committees:**

SNIA Europe country and regional committees organise and drive the education programmes of SNIA Europe at the local level. Currently, there are active committees in the following countries:

- BeNeLux: BeNeLuxchair@snia.org
- Czech Republic and Slovakia Interim chairman Tomas Martinek: Czech-Slovakchair@snia.org
- France: Jean-Francois Marie: francechair@snia.org
- Germany Stefan Ehmann: germanychair@snia.org
- Italy: Marco Spoldi, italychair@snia.org
- Middle East: Mahesh Vaidya, chair-mideast@snia.org
- Nordics: Per Sedihn, nordicschair@snia.org
- Russia: Alexander Dudnik, russia-chair@snia.org
- Switzerland: Laurent Piguët, switzerlandchair@snia.org
- UK: Jon Tate: ukchair@snia.org

- **Key Industry Technology Programmes**

SNIA Europe works in close liaison with SNIA worldwide to deliver end-user education programmes in key areas of storage networking and information technology. The SNIA Technology Forums & Initiatives drive industry standards, education, and marketing. Below are the current SNIA Forums and Initiatives:

- Cloud Storage Initiative (CSI) www.snia.org/cloud
The CSI is focused on the development of Cloud services through standardised programming interfaces and the education of IT communities about Cloud benefits, best practices, and use cases. SNIA Cloud Technical Work Group's first technology specification is the Cloud Data Management Interface (CDMI), based on the SNIA Information Resource Domain Model, for interoperability and data management across cloud domains.
- Data Protection & Capacity Optimisation (DPCO) www.snia-europe.org/data_management
It's mission is to foster the growth and success of the market for Data Protection and Capacity Optimisation technologies.
- Ethernet Storage Forum (ESF) www.snia.org/esf
The mission of the ESF is to drive the broad adoption of Ethernet-connected storage networking. Currently, their primary focus is on iSCSI and NFS technologies and solutions. New developments with the NFS protocol, in particular pNFS, promise to expand the market even further. iSCSI is very broadly viewed as a mainstream SAN solution in medium and in large organisations. The recent rapid growth of iSCSI solutions for virtual server and blade server environments has made iSCSI the fastest growing segment of the storage market.
- Green Storage Initiative (GSI) www.snia.org/green
The GSI is dedicated to advancing energy efficiency and conservation in all networked storage technologies and minimising the environmental impact of data storage operations.

The GSI will help guide energy best practices, development of evaluation tools, as well as work with government and other private agencies in development of standards around Storage.

- Solid State Storage Initiative (SSSI) www.snia.org/sssi
The goal of the SSSI is to foster the growth and success of the market for solid state storage in both commercial and consumer environments. Drawing from the experience and expertise of its members which number greater than 30 today, the Initiative works to advance the knowledge and acceptance of solid state storage through education, market outreach, and by evaluating and contributing to the standards necessary for industry-wide adoption.
- Storage Management Initiative (SMI) www.snia.org/smi
The mission of the SMI is to promote SMI-S as the standard interface for managing complex, heterogeneous storage networks. SMI-S can currently be found in a wide range of products from major storage vendors spanning data centres throughout the world. Visit the SNIA's Conformance Testing Program (CTP) www.snia.org/forums/smi/tech_programs/ctp/conformingproviders/ to learn more about which vendors have conforming SMI-S products.
- Storage Security Industry Forum (SSIF) www.snia.org/ssif
The SNIA security vision enhances information assurance and optimises security investments while maintaining present operational effectiveness in the disparate technologies and standards that work together to form those storage ecosystems. Our goal is to provide data and information security expertise to contribute to a better understanding of information assurance and how it applies in your IT operations.
- XAM (eXtensible Access Method) Initiative www.snia.org/xam
The XAM Initiative in 2010 will launch a XAM V1.0 solutions directory, for those IT purchases. The XAM development community now has access to the V1.0 XAM Software Developers Kit (SDK), which includes a reference VIM, libraries, and tools to accelerate implementation and improve interoperability. The SDK is ideal for ISVs and in-house IT development staff who create and deploy fixed content data solutions such as digital archiving, e-discovery, and medical records.