

# Aperi community tri-fold

If you are a storage end user or vendor, you probably have noticed that advancements in storage networking have combined with the declining costs of storage capacity to create more complex and heterogeneous storage environments. The result is that while lower acquisition costs have helped organizations satisfy their voracious appetites for additional storage, managing such heterogeneous environments has become increasingly difficult and expensive.

Maintaining such heterogeneous environments also puts an increasing strain on the storage administrators, who must now be proficient on a growing variety of management utilities and applications to keep the organization's information available. In addition, these disparate management applications tend to have redundant infrastructures (i.e., management servers, databases, etc.), which exacerbate the costs of supporting the environment.

If you are a vendor, you probably recognize that some of the software you develop and maintain to support your offering provides little differentiation from that of your competitors. As in all industries, the competition eventually manages to close the gap in technology that a leader had once enjoyed, which forces vendors to pursue new innovations to set themselves apart. Consequently, a proprietary advantage will likely become a standard feature for most competitors relatively quickly.

If you are like some of us that participate in the Aperi project who market storage products, you realize there is some level of basic infrastructure software we each support that follows this maxim. So, instead of each of us spending our resources on this commoditized layer of software, wouldn't it make sense to refocus our attention on developing innovative, value-add functions? We think so, and by collaborating on a common, open-source framework, vendors like us can not only eliminate some of the costs associated with maintaining this non-differentiating technology, but also work toward improved interoperability.

So while customers struggle with incompatibility challenges, vendors are struggling to accommodate today's heterogeneous environments while delivering innovative functions. These are some of the challenges the Aperi project aims to help overcome with its standards-based, open-source management framework.

## Fostering Innovation With an Open-source Framework

- Promoting interoperability through open-source collaboration
- Encouraging innovation with common, standards-based framework
- Backed by leading storage vendors

## What is Aperi?

Aperi is an open-source storage management project at the Eclipse Foundation, a not-for-profit organization dedicated to cultivating an open-source community and ecosystem of complementary products, capabilities, and services. At Eclipse, the Aperi project has developed a standards-based, framework of basic storage management functions that aim to help spur innovation and help end users and storage vendors overcome the complexity and interoperability challenges in today's storage environments. At no charge, vendors can use the entire open-source

framework, or select components, as part of their own offerings, which allows them to focus more of their resources on high-value functions.

As part of its commitment to supporting industry standards, the Aperi project intends to work closely with the SNIA on interoperability programs for its Storage Management Initiative Specification (SMI-S) standard and on advancing new storage standards. Enabling broad interoperability across heterogeneous storage vendor systems is the main objective of the SMI-S standard, and the Aperi project plans to make SMI-S an integral part of the Aperi framework. An example of this is Aperi's completion of the SNIA's Interoperability Conformance Test Program (CTP), which is an important step in verifying that a storage product implementation is compliant to industry specifications, such as the SMI-S standard.

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*Some of the storage industry's largest vendors have come together to create an open-source storage management framework that can simplify the management of complex storage environments and improve application interoperability.*

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#### **Major functions of the Aperi framework include:**

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- Resource discovery, monitoring and reporting across heterogeneous devices
- Graphical user interface, including topology mapping
- Event management
- Storage subsystem configuration LUN provisioning
- SAN fabric management
- Tape library discovery and reporting
- File system capacity reporting (size, % used, % free, etc.)

#### **Aperi Project Participants**

The following leading storage vendors are participating in the Aperi open-source project.

- Brocade Communication Systems, Inc.
- Cisco Systems, Inc.
- CA, Inc.
- Emulex Corporation
- Engenio Information Technologies, Inc.
- Fujitsu Limited
- IBM Corporation
- Network Appliance, Inc.
- Novell, Inc.

For more information on the Aperi project and how to participate, visit the Aperi project Webpage at: [www.eclipse.org/aperi](http://www.eclipse.org/aperi)