



# Project Talk Aperi Storage Management

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# Agenda

- Mission
- Open Standards, SNIA and SMI-S
- Scope
- Initial Contributions
- Architecture
- Participants
- Roadmap and Schedule
- Contact





## **Mission**

- Provide an open, extensible, standards- based storage management framework
- Give customers more flexibility and choice on how to manage their storage
- Simplify the infrastructure customers need to manage storage
- Cultivate an ecosystem for complementary products, capabilities, and services around the framework





## Open Standards, SNIA and SMI-S

- SNIA Storage Networking Industry Association
  - www.snia.org
  - "dedicated to ensuring that storage networks become complete and trusted solutions.
- SNIA's SMI Storage Management Initiative
  - develop and standardize interoperable storage management technologies
- SMI-Standards are based on CIM WBEM technology
- SMI-S v1.0.2 was approved by ANSI as an industry standard
- Most initial Aperi participants are SNIA members
- The Aperi framework will include an implementation of SMI-S





## Scope

- The Aperi Storage Management Framework architecture:
  - The discovery of host, storage, and infrastructure components through SMI-S;
  - Maintenance of a coordinated database;
  - A set of services including configuration, event and performance management;
  - Formalized interfaces between the applications and the storage management framework.
- The Aperi software project:
  - An open source implementation of the Storage Management Framework;
  - Implementations of representative applications that utilize the framework and deliver end-user functionality for enhanced storage management;
  - Additional functionality in the storage management framework.





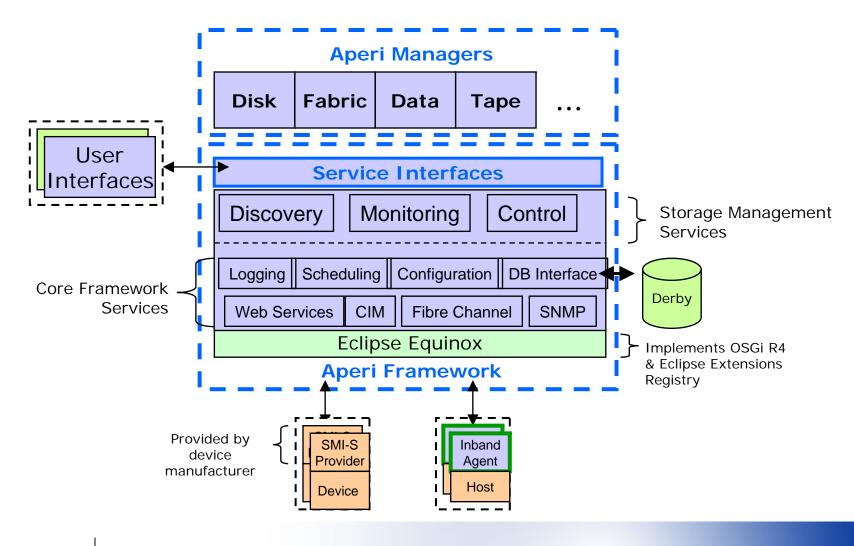
## **Initial Code Contributions**

- Code Contribution includes
  - GUI
  - API
  - Server
  - Host agent
  - Database schema using a open source RDBMS
- Major functions
  - Resource discovery, monitoring and reporting
  - Event management
  - Storage subsystem configuration, LUN assignment, and zoning
  - SAN Fabric Manager including graphical topology display
  - Tape Manager library discovery and reporting
  - File System Capacity Reporting (size, % used, %free only)





# Aperi is migrating to an Eclipse / OSGi architecture







## Roadmap and Schedule



#### R1

- Open, standards-based framework
- Initial IBM contribution
- Downloadable and demo-able
- Community evaluation

#### R2

- Componentization of architecture
- Extensibility through Eclipse Platform
  - Dynamic plug-ins extend framework

#### R3

- Initial Eclipse Rich Client Platform GUI
  - Refactored GUI using dynamic plug-in architecture
  - Topology viewer plug-in

#### R4

- Broad SMI-S profile support
- Unified Storage support
- Complete Eclipse RCP GUI





## **Participants**

Project Lead: Ted Slupesky

#### Committers

- CA http://ca.com/
- Emulex <a href="http://www.emulex.com/">http://www.emulex.com/</a>
- Fujitsu <a href="http://www.fujitsu.com/">http://www.fujitsu.com/</a>
- IBM <a href="http://www.ibm.com/">http://www.ibm.com/</a>
- McDATA http://www.mcdata.com/
- NetApp <a href="http://www.netapp.com/">http://www.netapp.com/</a>
- Novell <a href="http://www.novell.com/">http://www.novell.com/</a>

#### Interested Parties

- Brocade <a href="http://www.brocade.com/">http://www.brocade.com/</a>
- Cisco <a href="http://www.cisco.com/">http://www.cisco.com/</a>
- LSI Logic (Engenio Storage Group) <a href="http://www.engenio.com/">http://www.engenio.com/</a>





## Further information about the Aperi project

- Project Website http://www.eclipse.org/aperi
- Project News:news://news.eclipse.org/eclipse.technology.aperi
- or contact Christoph Reichert
  Christoph.Reichert@de.ibm.com
- and visit the Aperi Project Poster Session





# Questions?