Aperi
Storage Management

Creation Review

Eclipse Technology Project (ETP):
Aperi Storage Management Project

Overview

- Mission
  - Create a vendor-neutral, open, storage management framework and cultivate both an open-source community and an ecosystem for complementary products, capabilities, and services around the framework to promote greater consumer choice and foster competition.
  - Promote interoperability, eliminate complexity and incompatibility, foster greater opportunity for innovation, and provide a greater choice and added-value functionality for end-users.
- Summary
  - Enterprise management applications face unique deployment, scalability, and serviceability challenges. Aperi seeks to overcome these and further advance enterprise readiness of the Eclipse Platform.
  - Leveraging the Eclipse Platform, Aperi intends to develop an extensible storage management application framework that will include standards-based services for control, discovery, and monitoring of storage resources and an initial set of exemplary, exploiting applications. Candidates include file system, fabric, tape, and disk management applications.

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.

Participants

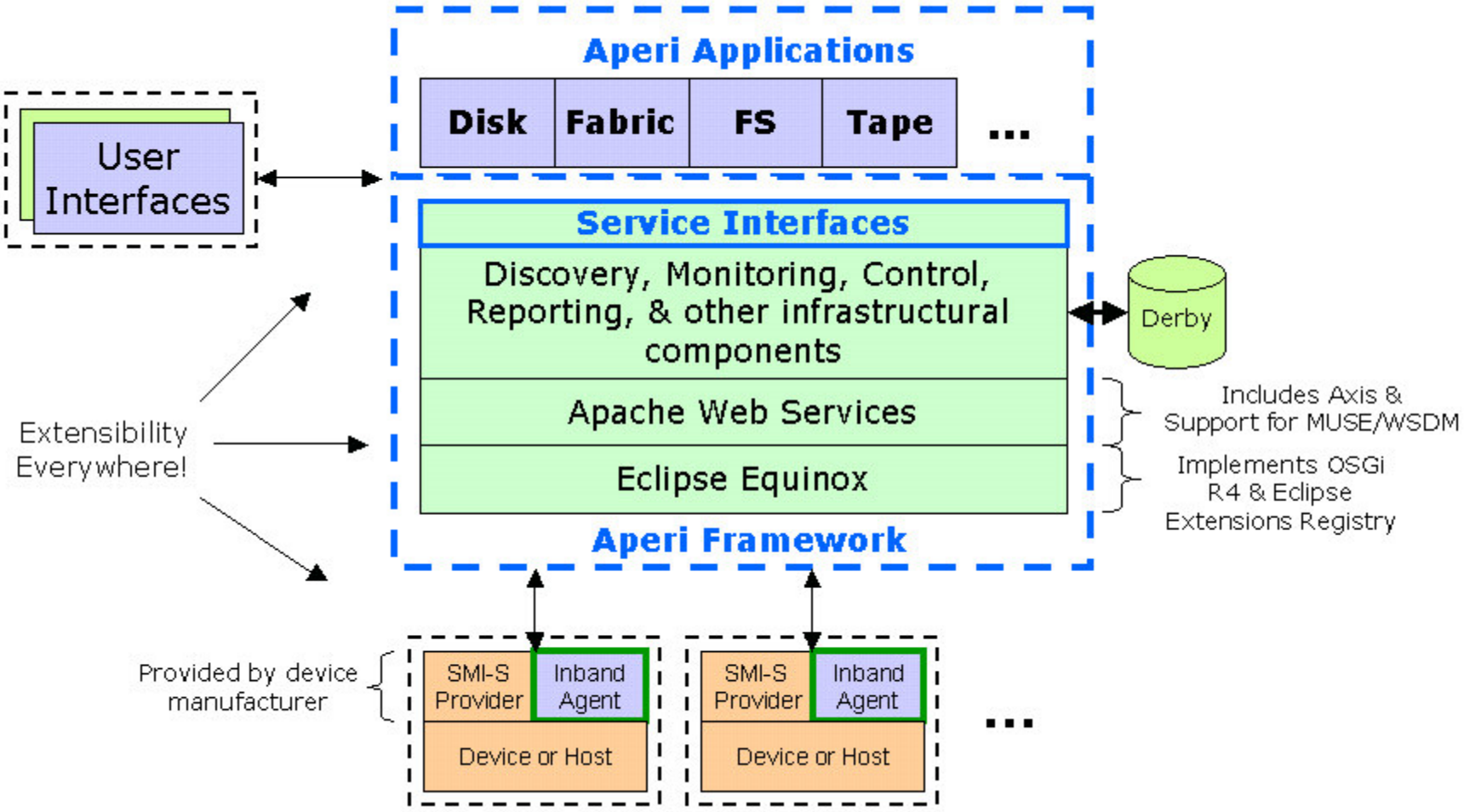
Proposed Project Lead: Ted Slupesky

- **Initial Set of Committers**
  - CA http://ca.com/
  - Emulex http://www.emulex.com/
  - Fujitsu http://www.fujitsu.com/
  - IBM http://www.ibm.com/
  - McDATA http://www.mcdata.com/
  - NetApp http://www.netapp.com/
- **Interested Parties**
  - Brocade http://www.brocade.com/
  - Cisco http://www.cisco.com/
  - LSI Logic (Engenio Storage Group) http://www.engenio.com/
  - Novell http://www.novell.com/

Eclipse components

- The Framework Layer:
  - It is based on technologies from the Eclipse Platform such as the OSGi implementation, the plug-in model, and the Extension Registry
  - It extends these Eclipse Platform technologies to include services that are fundamental to storage management, such as Discovery, Monitoring, Control, Alert management, and Database interface
- Intersecting projects:
  - Equinox, Corona, and Enterprise Component Framework are projects intersecting “Eclipse as an enterprise platform” and “Eclipse on the server.”
  - We will communicate with these projects and any others identified as within the Aperi scope.

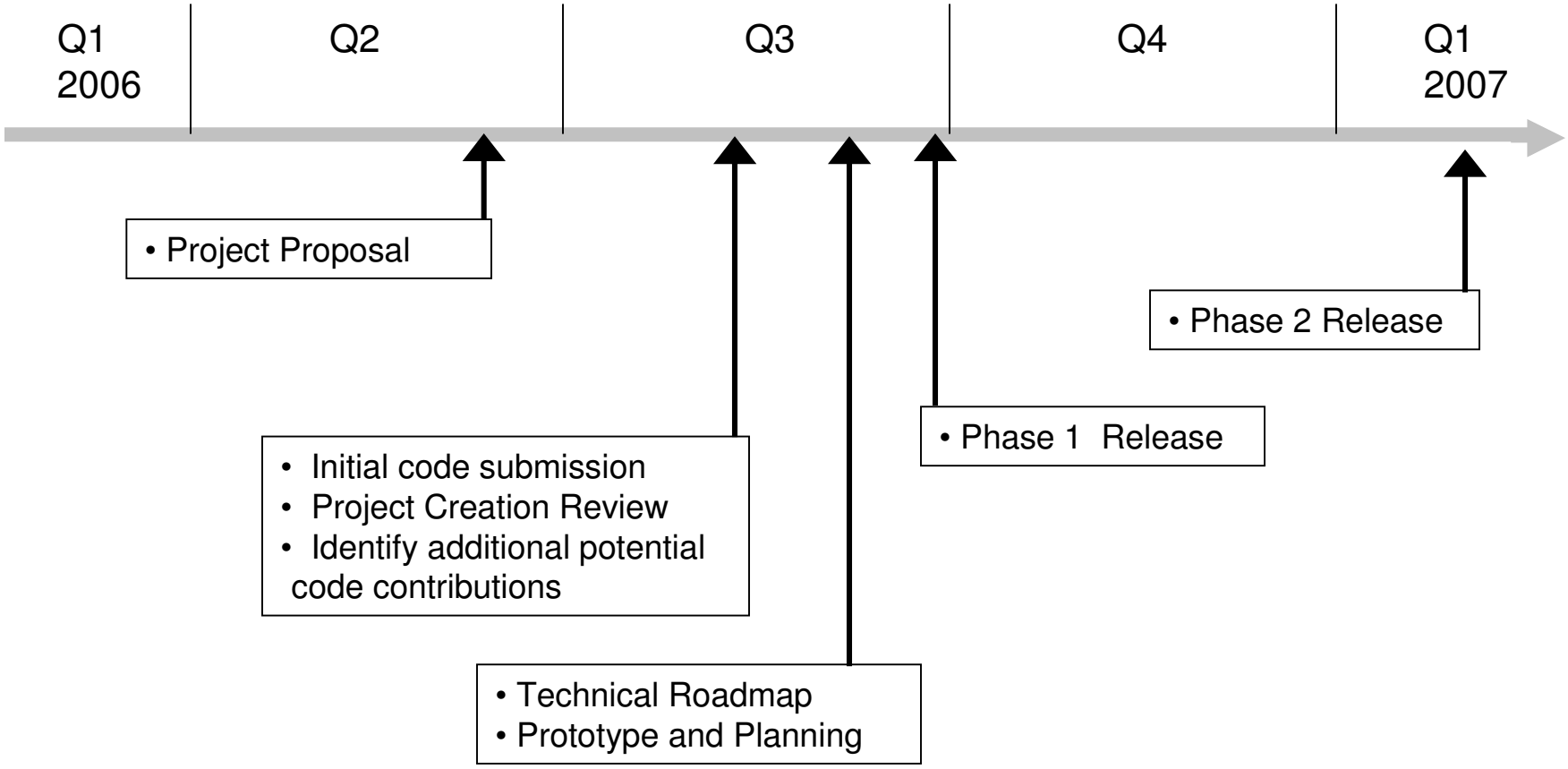
Architecture overview



Initial Code Contributions

- Code Contribution includes
  - GUI
  - API
  - Server
  - Host agent
  - Database schema and 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)

Project Plan



Questions?

- Project Proposal:

http://www.eclipse.org/proposals/aperi/

- Newsgroup:

news://news.eclipse.org/eclipse.technology.aperi