XAM-Interface VISION STATEMENT

XAM Committee

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What is the *XAM-Interface*

- **A standard application-to-storage interface in development, whose IP was contributed by the XAM-Team and now belongs within the SNIA's *FCAS-TWG for development and standardization**
  - This Interface (Named XAM as an acronym for "eXtensible Access Method") gives applications a standard interface and metadata to communicate with object storage devices characterized as "(Fixed) Content Aware Storage" to achieve interoperability, storage transparency, and automation for ILM-based practices, long term records retention, and information security

* FCAS, Fixed-Content Aware Storage, TWG is the technical working group charted by SNIA to develop standards around 'fixed-content aware storage' including the XAM-Interface

XAM-Interface Vision

- **The *XAM-Interface* will become the ubiquitous interface between applications and storage.**
  - This coordinated “handshake “ between the application and the storage medium enables interpretation of application metadata with the annotation of information, data, and security services metadata whereby policy-based decisions can be instrumented relative to record placement, retention, protection, distribution, movement, migration, security, authentication, compliance, and disposition independent of the application
  - The *XAM-Interface* enables ILM-base practice automation

WHAT THE *XAM-Interface* IMPACTS

- **Fixed Content Aware Storage Systems**
  - Interoperability via standard interfaces
  - Application integration becomes defacto
- **Information Lifecycle Mgmt Automation**
  - Metadata services to instrument the automation of standard Data Services, Information Services, & Information Assurance (Security) Services
- **Enterprise Grids**
  - Solves the new information mgmt requirements and will empower Grid adoption

XAM-Interface and FIXED CONTENT

- **The *XAM-Interface* gives each individual content object (a package of data and related metadata) its own persistent & unique external name which accompanies it throughout its lifetime**
  - The *XAM-Interface* solves the out-of-control custom application-API problem of today's many proprietary solutions. The XAM-Interface leads to interoperability and interchangeability of information
  - The power of location-independence and persistent naming, facilitates transparent media and technology refresh cycles in long-term archives – a critical problem today

XAM-Interface and ILM

- ***XAM-Interface's* metadata instruments automation of ILM-based practices**
  - Metadata can be used for classification and by services to act upon the content objects according to standard policies
    - Automates data, information, and security services
    - Reduces the cost of operations and simplifies ILM-based practices
  - Provides a single access method that transparently spans multiple storage devices
    - Empowers simplification and consolidation of tiered storage

XAM-Interface and GRID

- **The object oriented and location and technology independent approach empower the shift towards Enterprise Grids and Data Grids and when coupled with ILM-based practices, provides a new information management model that is needed for Grid adoption**
  - By tying content objects to a globally unique name, *XAM-Interface* can efficiently manage the content without application concern as to a specific physical location of that content or technology it resides on.

Why the *XAM-Interface* is Strategic

- **'Fixed Content' has a long shelf life**
  - e.g. regulations routinely require 7-20 years, 50+ years is not uncommon
- **Storage technology is transient**
  - Content needs to be able to transcend physical, geographical, technological, organizational boundaries
- **Content needs to be preserved in a self-describing way**
  - Recognize a "record" as a storage type
  - Encapsulate data+metadata into a "record"
- **Enable applications to "migrate" across storage devices**
  - from different vendors, across different technologies for long term archive
- **Enable "records" to migrate between storage devices**
  - from different vendors, across different technologies, or for long term storage
- **Enable "records" to migrate between applications**
- **Manage billions if not trillions of "records" over time**