TARMIN

Where Data Defines Value.

Tarmin GridBank for EPSRC Compliance

Tarmin IBM Solves Compliance Challenges for Education Market

Introduction

With massively growing volumes of machine-generated data and reduced levels of public funding available, universities and research institutions are facing new challenges of how to best manage their information repositories in a cost-effective way. Compliance regulations, such as the upcoming mandates set forth by the Engineering and Physical Sciences Research Council (EPSRC), require greater restrictions on data protection, security, retention and disposal. With ever-increasing amounts of data requiring intense compute resources to analyze, those in the education market need both high-performance storage for live data sets as well as cheap and deep storage for long-term retention of digital assets.

The Challenge

EPSRC compliance regulations that are due to go into effect by May 2015 state that education organizations' publicly funded research needs to be transparent and highly available with public access, meaning projects need tighter control over data governance.

Core EPSRC compliance principles are stated below:

- EPSRC-funded research data is a public good
- Legal, ethical and commercial risk management of data access policies
- Collaborative working enhances the impact of research
- Researchers are entitled to a limited period of privileged access to data to publish results
- All data management policies should be standards-based and allow for long-term retention
- Metadata should be recorded and made openly available to other researchers
- Cost efficiency is important

One such leading education and research institution faced the challenge of providing a centralized storage repository for research data while allowing open access to meet EPSRC compliance regulations and preemptively minimizing potential sanctions that could include the loss of access to public funding.
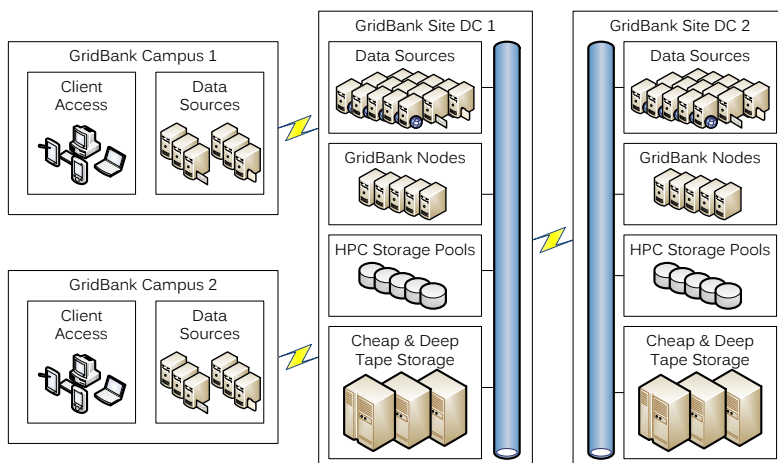
Typical University Deployment

BENEFITS

- **Centralize Research Data**
- **Meet Cost & Performance Targets**
- **Chargeback Storage to Projects**
- **Long Term Secure Data Retention**
- **Bandwidth Optimized Replication**
- **Resilient Architecture**
- **Unified On Demand Search**
- **Integrate Storage & Compute**
- **Extract Knowledge from Data**

STORAGE AWARDS
THE STORRIES X
WINNER

"Tarmin's GridBank software [addresses] all of the core issues with managing unstructured data over the long term"

Steve Dupliesse
Founder, ESG

Compounding this challenge was the fact that researchers and scientists were accustomed to managing their project funds with a focus on greater access to experimental investment by acquiring consumer-grade storage or relying on cloud storage. This meant that the institution's central IT department needed to provide a compelling solution that was inexpensive and scalable while remaining secure and compliant in order to compare favorably with low-cost, high-mobility data providers the researchers were accustomed to using.

Other key requirements for the educational compliance project included collection and provisioning of project metadata, indexing and project-based chargeback. Additionally, there was a requirement for a high-performance live analytics store for researchers working on large projects with archival of digital assets into long-term tape storage for completed projects, which further strained the organization's restricted budgets.

The Solution

Tarmin addressed these challenges by implementing a joint solution featuring the innovative Data Defined Storage solution GridBank Data Management Platform and IBM Systems. Running on IBM System X Servers and IBM DCS 3700 System Storage for the live store with GPFS and TSM providing access to cheap and deep tape libraries, Tarmin GridBank provides multi-tenant, distributed storage that is scalable to multiple petabytes and allows open access through BYOD and smart devices, as required. It offers a secure information governance and archiving framework, and arbitrary metadata tagging and context indexing.

The Benefits

By implementing this unique solution, packaged and targeted at the education market, the institution was able to operate as an internal managed service provider delivering a private cloud solution that offers its researchers a high-performance, centralized and scalable data storage repository for live data and nearline tape storage for archived projects. The combination of hardware and software ensures that data is securely stored and retained for the long term at a competitive price point with online cloud providers.

Additionally, Tarmin implemented self-service provisioning and chargeback of storage for researchers on a project basis, which collects and indexes the project metadata for ensuring external provisioning of data to comply with the EPSRC mandates. Since academia thrives on exposure to other perspectives outside of any one particular research arena, it is important that members of the education community be able to use their own devices as a way to encourage sharing and collaboration with an ease of use that might not otherwise be available if tethered to the institution's compute resources. The requirement for increased flexibility and mobility was met by enabling users to access data through smart device connectivity, which encouraged engagement from the research community and ensured buy-in for the project.

Conclusion

In today's world of high value data assets driving innovation, information governance has become a core concern. Organizations face regulatory compliance mandates including data retention and disposal mandates, as well as information security policies for commercial, legal and regulatory reasons. Additionally, with data such a valuable asset, it is necessary to ensure it is protected from corruption, unauthorized access and maintain its integrity against hardware failure or tampering. Organizations need to identify methods to ensure logical separation of data repositories, encryption, authentication and ways of protecting data integrity throughout long retention periods.

Educational organizations already facing austere measures cannot afford any further reduction in public funding. The Tarmin GridBank and IBM Systems collaboration allows for reduced cost of storage through cheap and deep research data archival, reduced data risk through addressing EPSRC compliance mandates, open access to data anytime, anywhere through any client device, and enhanced understanding of data via metadata ingestion, tagging, unified search and live analytics.

About Tarmin

Tarmin Inc., the leading provider of Data Defined Storage solutions, unlocks the value of data as a strategic business enabler, delivering a massively scalable, transparent and unified approach for consistent data management, storage, retention, security and search across cloud and traditional storage infrastructure. Tarmin's proprietary GridBank solution empowers organizations to store, control and understand the value of data as a competitive business asset, no matter its size, location or cost by uniting application, information and storage tiers into a single, integrated data centric management architecture.

Product Highlights

- **Data Centric Storage**
- **File System Virtualization**
- **Distributed Object Dedupe**
- **AD/LDAP Security**
- **Information Governance**
- **GridSync & Smart Mobility**
- **Content Metadata Filtering**
- **Unified Enterprise Search**
- **Big Analytics Integration**

datacentre solutions awards 2013 Winner

"GridBank 3.0's massively scalable model allows businesses to consolidate their data globally across silos to reduce cost...and enhance the value of data."

Ashish Nadkami

IDC

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