ITS Information Technology Services

Central Storage Project Charter

Phase Two – Storage Roadmap

April 6, 2010

Business need/Background

The ITS Systems group currently provides centralized data storage to multiple university customers via services such as Austin Disk and WebSpace. Recent feedback from campus stakeholders, along with findings from the Strategic Information Technology Advisory Committee (SITAC) report, has indicated there is confusion regarding these services and dissatisfaction with the costs.

It has become clear that a long-term strategy (3-5 years) regarding data storage services needs to be considered and developed to ensure that funds and resources are appropriately allocated and directed so that ITS is well-positioned to offer storage services that meet the business needs of campus stakeholders.

Project description

The purpose of this project is to enable ITS to cost-effectively expand and enhance the centralized data storage services it offers to campus. This project will not only address immediate needs for sustaining current service, but will focus on developing and implementing a storage roadmap that allows for better allocation of ITS funds and resources to meet campus storage needs in a cost-effective manner.

Phase One of this project, currently in progress, focuses on short-term initiatives to allow for expanding the existing storage infrastructure to meet current application needs.

Phase Two, detailed in this project charter, sets the course for the long-term ITS data storage strategy.

Phase Two will commence with business requirements gathering which will include:

- Feedback from the SITAC process.
- Conducting “focus forums” with key campus stakeholders (e.g. students, faculty, staff) to ensure storage services map to their needs.
- Documenting technical storage guidelines as identified by ITS-Systems staff.
- Surveying and documenting different storage solutions and entitlements offered by peer universities (i.e. Berkeley, UW-Madison) and third-party vendors (i.e. Amazon, Google).

With business requirements clearly defined, the process of designing a storage solution will begin. The storage team’s goal is to go through the solutions exploration phase by focusing on campus storage requirements rather than technology-specific solutions. Vendors will be engaged

only after business requirements have been determined. This design will feature a tiered architecture and service model that balances availability, performance, stability, data protection and cost. Applications requirements will be matched with storage tier characteristics. An example of a tiered storage solution is outlined below (the actual design will be based on business requirements and will be approved by the Steering Committee):

Storage Type	Description	Recommended For
Tier 1 (Fibre Channel or FC)	Highest cost Highest performance Highest reliability	Highly availability databases and applications
Tier 2 (SATA)	Balances performance and reliability with cost	Departmental servers
Tier 3 (Low performance disk)	Lowest cost Lowest performance Lowest reliability	Office documents Web content Digital media

A process will be determined where feature sets will be mapped to an evaluation procedure of viable vendors through a Request for Information (RFI)/Request for Proposal (RFP). The Purchasing Office will be included in this initiative to guide us through the process. "Proof of concepts" will be executed and evaluated against a consistent and pre-determined set of criteria.

As part of our efforts to continue to improve efficiency and to ensure ongoing alignment between campus storage requirements and ITS storage services, the centralized storage team will publish an annual report that forecasts storage growth and budgetary needs and also details usage trends over the previous twelve months.

Project goals

- Design, recommend and implement a long-term (3-5 years) storage solution that adheres to the business requirements collected from campus stakeholders.

- Enable a scalable hardware infrastructure that supports the storage solution and aligns with the technical storage guidelines as identified by ITS staff.

Scope

The following tables provide a description of items that are within the scope of the project as well as items that are identified as beyond the scope of the project.

In scope:
Gather, compile and prioritize requirements from campus stakeholders
Design, recommend and implement a long-term (3-5 years) storage solution that adheres to the business requirements collected from campus stakeholders-- • Provides options that balance availability, performance, stability, data protection and costs to meet individual customers needs • Easy to provision • Well documented and publicized with Service Level Agreements (SLAs) in place
Enable a scalable hardware infrastructure that supports the storage solution and aligns with the technical storage guidelines as identified by ITS staff-- • Leverages the Phase One legacy storage environment where applicable • Leverages TACC storage offerings where applicable
Leverage RFI/RFP processes to provide structure to evaluation and selection procedures
Develop a transparent cost model for service, which will include Common Good Services
Improve storage methodologies-- • Implement annual storage trend/growth analysis and reporting • Create/update Disaster Recovery (DR) plans for all storage systems • Develop a purchasing strategy to accommodate 20% contingency planning • Define lifecycle for storage hardware
Foster collaborative relationships with campus entities to promote utilization of centralized storage

The following items are specifically excluded from the scope of this project.

Excluded from scope:
Management of storage systems outside of ITS
Storage for high performance research computing

Schedule and Milestones

The following is a list of the major project milestones and dates.

Milestones/*Deliverables*	**Target Date**
Conduct focus forums with campus stakeholders to gather business requirements	November 2009
Compile and identify common storage themes/needs	December 2009
Finalize project governance structure	December 2009
Conduct review of current environment	February 2010
Review and prioritize business requirements	March/April 2010
Business requirements are defined and prioritized	April 2010
Define technical requirements based on business requirements	April/May 2010
Develop RFI with Purchasing Office assistance	June 2010
Project update to IT and Architecture Infrastructure Committee	June 2010
Design phase commences based on business/technical requirements and RFI response data	July 2010
Design document is completed and approved by Steering Committee	July/August 2010
RFP process is initiated	July/August 2010
Evaluation/test plan is completed	July/August 2010
Vendor evaluation and assessment (including Proof of Concepts)	August/September 2010
Evaluation report is completed	September/October 2010
Recommendation to Data Storage Steering Committee	October/November 2010

Purchasing process is initiated upon approval of recommendation by Steering Committee	December 2010
Implementation plan is completed	January 2011
Implementation begins	January 2011

Project Structure

Role	Name(s)/Title(s)	Responsibilities
Executive Sponsor(s)	Brad Englert, ITS	Responsible for the success of the project.
Project Manager	David Moss, ITS	Provide project planning, coordination, and communications. Provide overall status reporting of deliverables to the project team and identified stakeholders. Track progress toward completion of the identified project goals. Meeting organization and overall meeting facilitation.
Technical Leads	David Pavkovic, ITS Ryan Starck, ITS	Provide technical expertise to be utilized for project initiation, planning, design and execution.
Technical Engineers	Alex Barth, ITS Thomas Nail, ITS	Responsible for building, testing and deploying storage.
Data Storage Steering Committee	Dan Stanzione, TACC Chris Jordan, TACC Mia Markey, Biomedical Engineering Mark McFarland, University of Texas Libraries Robert O'Halloran, Information Quest	Strategic project guidance and validation, management support, resource allocation.

	Anh Selissen, ITS	
Stakeholders	ITS Customers	Customers utilizing ITS storage via services such as Austin Disk, WebSpace, Web Central, etc.
Oversight	Infrastructure and Architecture Committee of SITAB	Confirm design aligns with stakeholder needs.
Purchasing Office	Jerry Fuller	Provide guidance in RFI/RFP process
Peer Technical Support Managers	Cam Beasley, ISO Michael Cunningham, UDC William Green, Networking	Confirm storage design conforms to the standard operation guidelines of campus services.
Peer Communications Support	Jennifer Jobst, Strategic Communications	Assist in generation of documentation and communication.

Assumptions

Assumptions for this project include:

- Current network infrastructure will be sufficient to meet the needs of centralized storage services.
- Project staff resources will be available when and as they were needed.
- The scope of the project is limited to that described in this document.

Risks

The primary risks for this project are:

- The timelines for service fee approvals and Common Good Service determinations may be slower than the Central Storage project timelines defined within this document.
- This project is dependent on the CRB data center substantial completion milestone currently scheduled for July 2010. Any delays in the CRB project may impact the schedule.
- Delays in the RFI/RFP processes may impact the schedule.
- Increased utilization of centralized storage services will accelerate growth and require additional funding.

- Departmental networks may need to be upgraded to accommodate centralized storage services.
- The level of TACC integration is unknown pending the results of on-going testing.
- Limitations in available staff time due to competing priorities.

Signatures

Name	Role	Signature	Date
Dan Stanzione	TACC Steering Committee Representative		
Chris Jordan	TACC Steering Committee Representative		
Mia Markey	Biomedical Engineering Steering Committee Representative		
Mark McFarland	University of Texas Libraries Steering Committee Representative		
Robert O'Halloran	Information Quest Steering Committee Representative		
Anh Selissen	ITS Steering Committee Representative		
Brad Englert	Project Sponsor		