
University of Notre Dame

Draft Institutional File Space Project Charter

Revision <1.2>

Document Information

Document title:	Institutional File Space Project Charter
Revision number:	<1.2>
Issued by:	Kevin Rowland
Issue Date:	March 7, 2001
Status:	Draft

Document Approvals

Larry Rapagnini		
Asst. Provost - OIT	signature	Date
Bob Schaffner		
Director, Platforms	signature	Date
Kevin Rowland		
Project Manager, ESS	signature	Date
Gary Dobbins		
Director, ASI	signature	Date
Don Walquist		
Director, ITS	signature	Date

Table of Contents

1.	Scope and Objectives	4
2.	Project Overview	4
2.1	Project Purpose.....	4
2.2	Project Scope and Objectives	4
3.	Project Approach	4
3.1	Key Project Deliverables / Features	4
3.2	Key Quality Objectives	6
3.3	Key Customer Areas & Functions.....	6
3.4	Organization and Responsibilities.....	6
3.5	Dependencies	6
3.6	Facilities and Resources	7
3.7	Support Activities.....	7
3.8	Risks.....	7
3.9	Project Effort, Schedule, and Cost Estimates.....	7

Institutional File Space Project Charter

1. Scope and Objectives

The objective of this document is to provide an overview of the Institutional File Space project and to outline the project structure. The scope of this document is to abstract non-confidential information from the Institutional File Space Business Case and lay out the foundation from which the Project Plan will be written.

2. Project Overview

2.1 Project Purpose

In a highly collaborative environment such as an academic institution, the existence of a ubiquitous common repository for file based storage, retrieval and sharing is a necessity. The Institutional File Space project is to provide that common repository for file based storage, retrieval and sharing in a manner that is fully compatible with all the supported platforms in use at the University.

2.2 Project Scope and Objectives

This project will provide a complete solution for the implementation of an Institutional File Space, and associated administrative policies and procedures. Due to the lack of a single, widely accepted, technology that can adequately serve all the needs of such a heterogeneous environment, a multi-platform design is necessary.

AFS will continue to act as the primary network file system for Unix workstations while this project will attempt to build a parallel network file system that more appropriately serves the needs of the Microsoft and Apple operating systems and applications. In an attempt to keep the scope of this project from becoming too unwieldy and without sacrificing too much functionality, Microsoft and Apple clients will share a common network file space. This is possible due to the fact that their applications and OS's share some of the same requirements of a file space.

This phase of the project will focus primarily with home directory service with the expectation that, in future phases, this solution will be called upon to house other institutional file based solutions (e.g. portions of the "I" drive).

3. Project Approach

3.1 Key Project Deliverables / Features

Given the "dual" nature of the overall architecture for the new IFS, it becomes necessary to address each file system separately. 'AFS' will refer to the existing AFS distributed file system supporting Unix clients in the common case and Microsoft and Apple clients in the uncommon case.

‘CIFS’ will refer to the new portion that is targeting Microsoft and Apple clients in the common case and Unix clients in the uncommon case. The major bullet point states the deliverable. Sub points under that deliverable attempt to explain “why” that deliverable is important to the project, but do not represent deliverables themselves. Sub points may also offer additional information or cite sources for more information.

- Must leave AFS, with all its current policies and procedures for operation, intact unless an alternative exists offering superior (not less) service to Unix clients
 - AFS currently serves the various Unix platforms very well and there is no desire to replace it until/unless a true successor technology is identified (e.g. NFS 4, Coda)
 - <http://www.transarc.ibm.com/Product/EFS/AFS/index.html>
- Must support University-supported Microsoft clients natively, by implementing CIFS services, or by providing a client that offers applications the same level of service
 - CIFS is a specification that Microsoft adopted that defines a standard remote file-system access protocol enabling users to share documents across a network.
 - <http://msdn.microsoft.com/library/specs/cifs1099.htm>
- Must support University-supported Macintosh clients natively, by implementing AppleTalk Filing Protocol (AFP) service, or by providing a client that offers applications the same level of service
 - AFP is a protocol implemented by Apple Computer to provide remote access to files across an AppleTalk network.
 - <http://devworld.apple.com/techpubs/mac/Networking/Networking-223.html>
- Must provide web (HTTP - GET) access to designated portions of the file space, such as:
 - “www” folder in users’ home directories : Users can publish ‘read-only’ content to the web by placing files in this folder or in directories nested under it.
 - RFC1945 - HTTP/1.0
 - RFC2068 - HTTP/1.1
- Should support DAV (web-folders) by 8/2001
 - DAV (Distributed Authoring and Versioning) defines a set of extensions to the HTTP protocol that will provide a more robust web-based access to a network file space by implementing features such as locking (concurrency control), Namespace manipulation (copy and move files), and Properties (providing for storage of arbitrary metadata for a web resource).
 - <http://www.webdav.org/>

- RFC2518 - WEBDAV
- Must support Kerberos 5 and current (AFS based) Enterprise Authentication service for authentication either directly or slaved to it
 - Kerberos provides the standard Enterprise Authentication system that is crucial for authoritatively identifying clients to services and vice versa.
 - <http://web.mit.edu/kerberos/www/>
 - RFC1510 – Kerberos (V5)
- Must support file level security for all file objects within the system
- Must perform daily backups
- Must keep snapshot (YESTRDAY folder) for [1] day
- Must provide a means (e.g. tool or utility) to let users choose where their files are stored (AFS or new IFS)

3.2 Key Quality Objectives

- Must be reliable, predictable, and available [need to define this further]

3.3 Key Customer Areas & Functions

- The University “Mass Market” as a standard file service
- OIT

3.4 Organization and Responsibilities

- The Project Manager is Kevin Rowland
- The project team is Kevin Rowland, Zuwei Liu, Gary Dobbins, Velma Harris and other technologists as responsibilities are identified
- The Stakeholders group is lead by the Business Unit Leader as designated by IT Services. Members of this group are:
- The Technical Interest group is led by the Project Manager, Kevin Rowland. Members of this group are: Kevin Rowland, Zuwei Liu, Gary Dobbins, Ian Byrne, Dave Klawiter, Velma Harris, Jeff Morgan, Katie English, Paul Go

3.5 Dependencies

- Existing nd.edu AFS-K4 realm as current enterprise authentication system
- Existing NT4 “ND” domain for NTLM authentication (slaved to nd.edu AFS-K4 realm)
- Kerberos 5 enterprise authentication system
- Testing lab and evaluation equipment for prototyping solutions
- Project team personnel time
- Stakeholder groups' participation and accountabilities

3.6 Facilities and Resources

- No additional resources have been identified at this time.

3.7 Support Activities

- The Help Desk will be involved to supply level one support to customers using the new Institutional File Space service.
- [...] will be involved to fulfill data retrieval requests from backup

3.8 Risks

- Non-participation by the Stakeholder or Technical Interest group would hinder a timely solution
- Withdrawal of funding or staff
- Inability to integrate any commonly-available products with our core authent/ident services would be a hurdle.
- Irrational/unreasonable cost from vendors

3.9 Project Effort, Schedule, and Cost Estimates

- See Attached Estimate of Cost
- See Attached Project Plan & Resource Usage Plan