

# DISTRIBUTED FILE SYSTEM

INFORMATION TECHNOLOGY, I

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A distributed file system is a file system where data is distributed across multiple nodes.

General goal:

Try to make a file system transparently available to remote clients.

Abstract:

*Design, develop and implement a distributed file system across computers running Unix-based and Windows operating systems, making use of the available software applications and technology.*

The quality of a DFS is reflected by:

- Transparency
- Performance
- Concurrency control

# Implementation:

## 1 Server:

- OS: Ubuntu 9.10, running Samba server v. 3.3.9

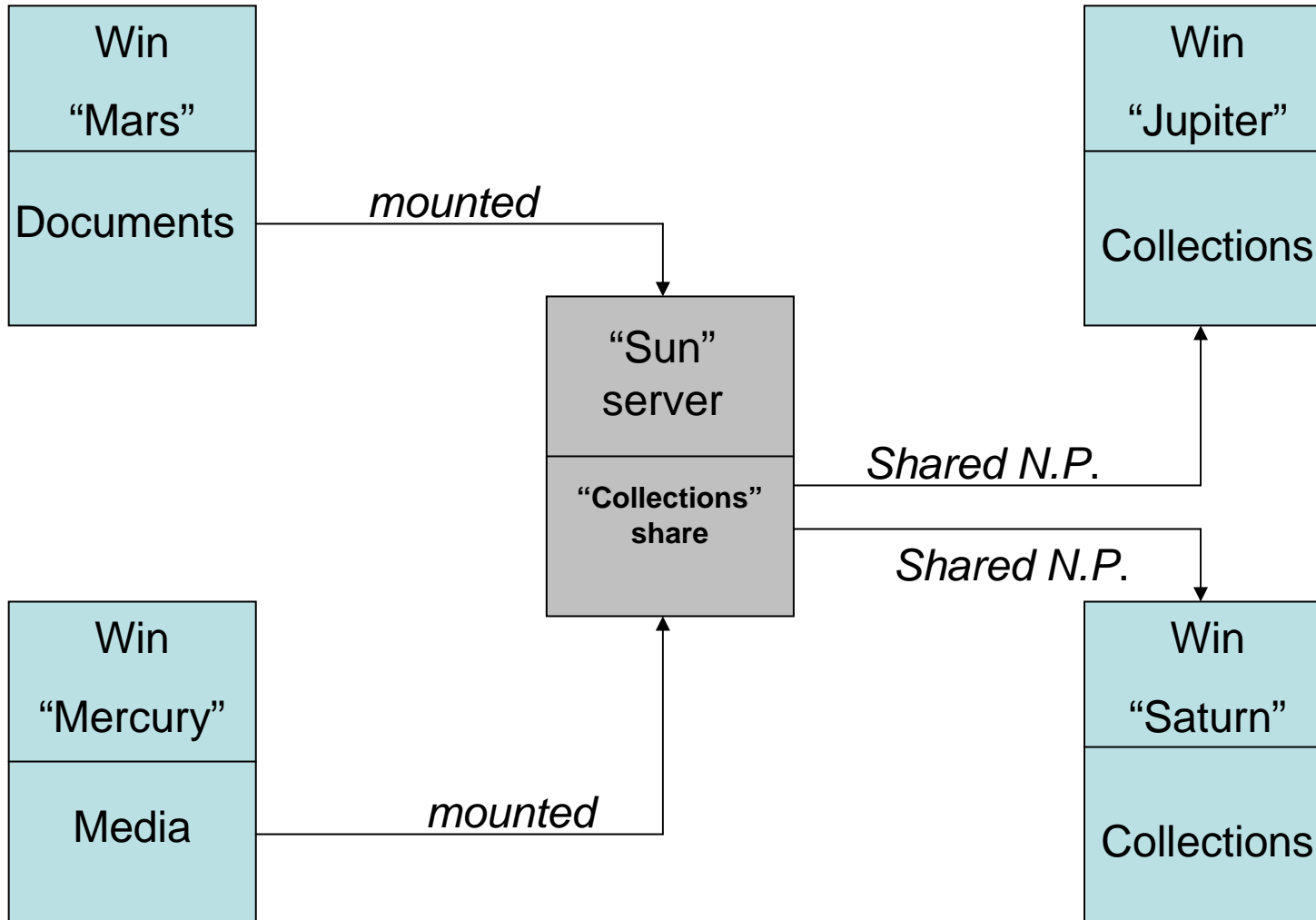
## 4 Workstations

- OS: Windows XP

Samba, because:

- it's free, easy to install and configure
- offers better compatibility for windows shares, through the SMB protocol
- has a built in mechanism for concurrency control

# How does it work?



## The disadvantages:

- Not scalable
- No file replication
- Requires permanent network connection
- All the workstations need to be running



## References:

- <http://ubuntuforums.org/showthread.php?t=202605> for detailed instructions on how to setup the samba server
- [http://searchenterprise-linux.techtarget.com/news/article/0,289142,sid39\\_gci921657,00.html](http://searchenterprise-linux.techtarget.com/news/article/0,289142,sid39_gci921657,00.html) for information on how networked file systems work
- <http://www.ubuntugeek.com> – for tips and tricks on mounting windows shares