

**THIC Meeting at the Embassy Suites Hotel  
Denver South, Englewood CO 80112**

**Data Management -From Desktop  
to Department to Data Center to Data  
Warehouse**

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**THIC Inc.**

**The Premier Advanced Recording Technology Forum**

*UniTree, Inc.*

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# UniTree Software, Inc.

*Empowering Enterprise Storage*

## *Data Management - From Desktop to Department to Data Center to Data Warehouse*

# UniTree Benefit

## □ Data Management

- Studies have shown that for every Dollar Spent on Data Storage \$6-\$8 are spent on Data Management
- The UniTree Suite of Products Greatly Reduce this Cost

## □ Significant Reduction in Storage Cost

- Overall Data Storage Cost is Greatly Reduced through the use of more Cost Effective Media such as Tape or Optical.

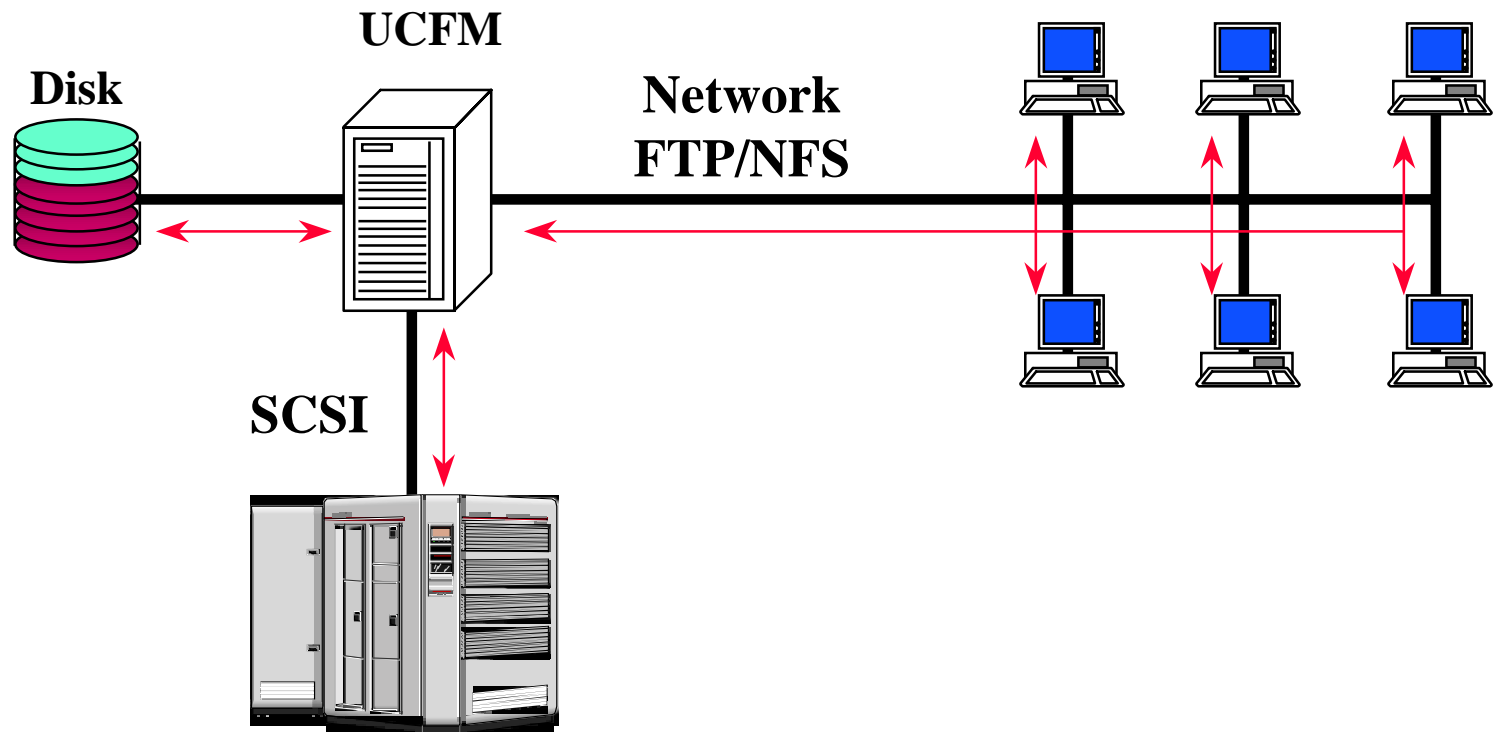
# Presentation Objective

Present and define UniTree path to utilize existing and new storage technologies that will allow the successful deployment of solutions in corporate enterprises

# UniTree Objective

- To provide customers the ability to transparently move data throughout their Enterprise
  - Transparent Desktop Data Management
  - Departmental File Serving
  - Data Center Data backup and archiving
  - Data Warehouse Migration
  - Use of SAN Technology

# Traditional Approach to Storage Management



# UniTree Distributed Approach

Desk  
Top

Departmental  
Server

Data  
Center

Data  
Warehouse

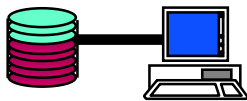
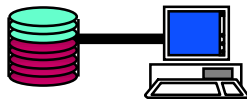
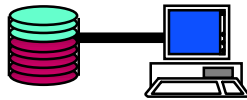
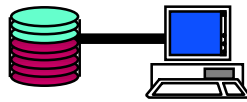
# UniTree Distributed Approach

Desk  
Top

Departmental  
Server

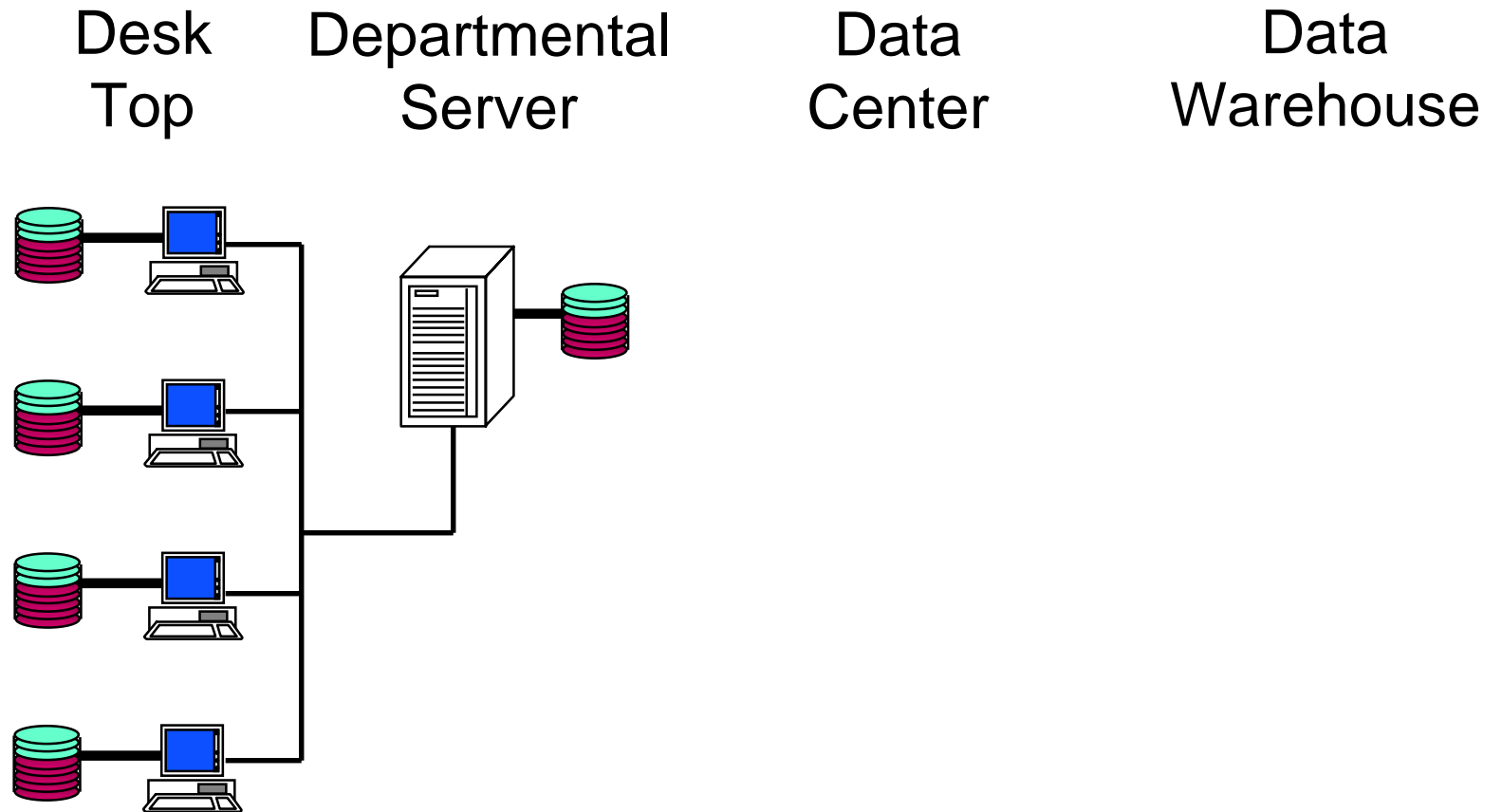
Data  
Center

Data  
Warehouse

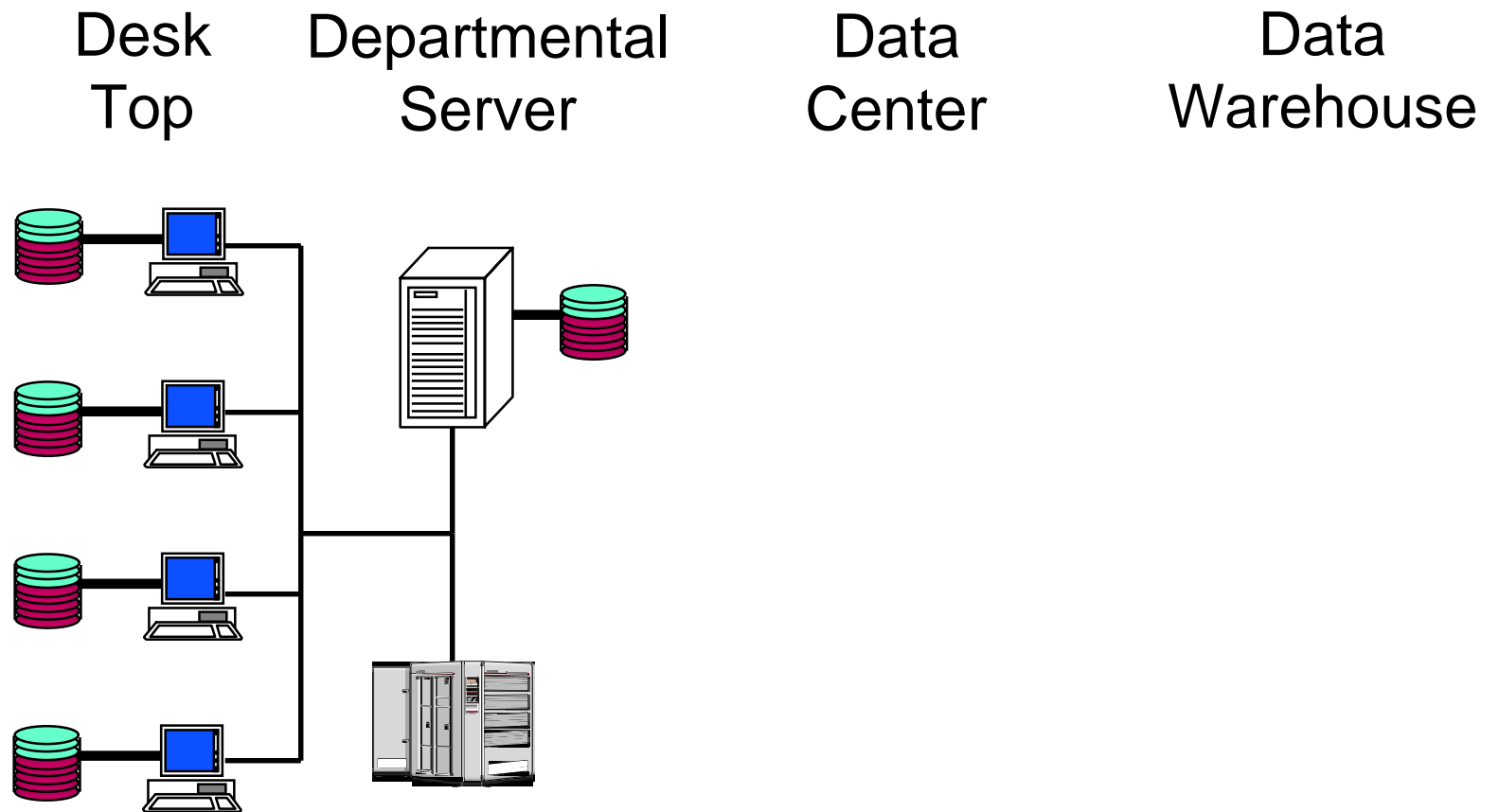




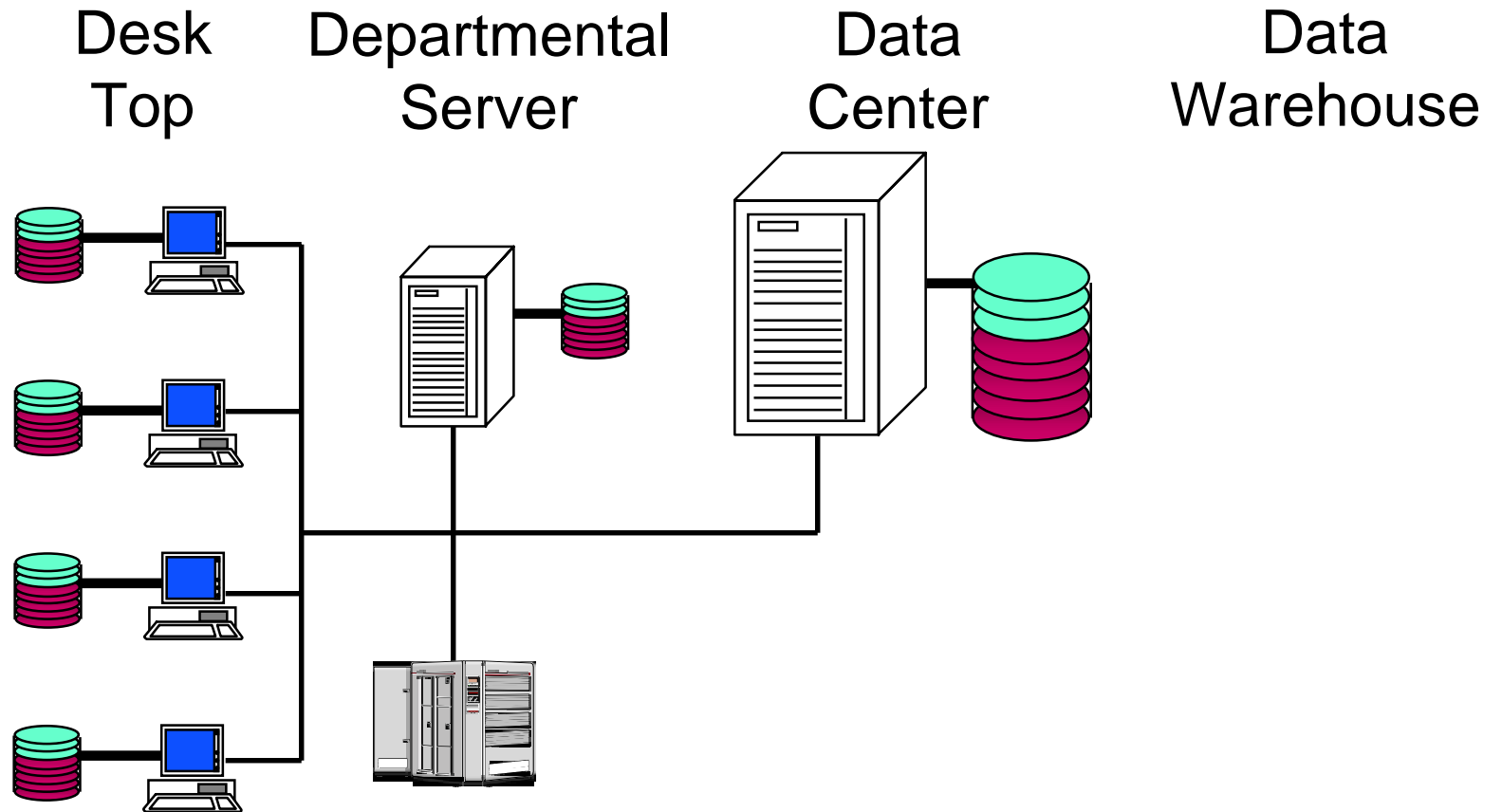
# UniTree Distributed Approach



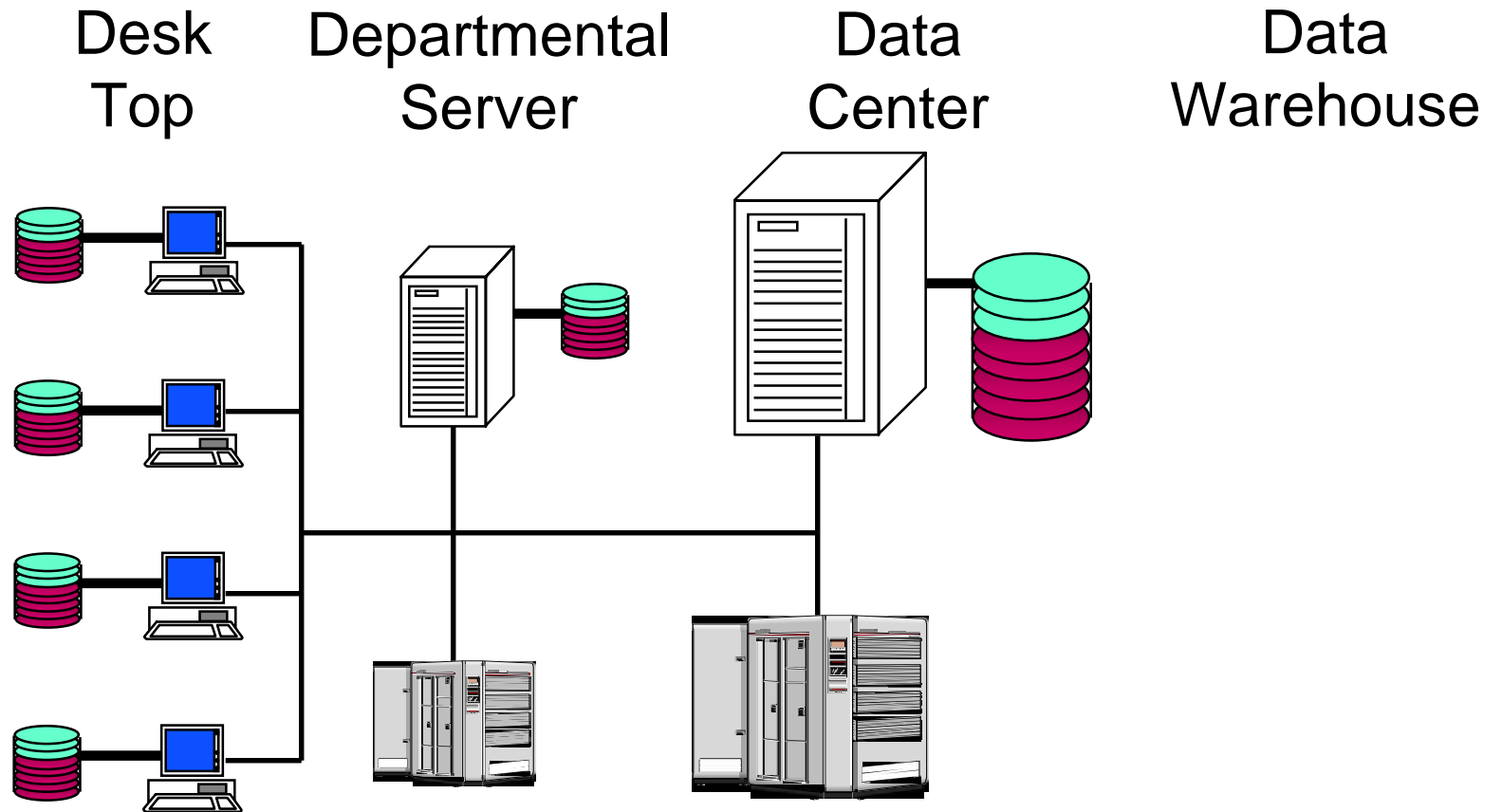
# UniTree Distributed Approach



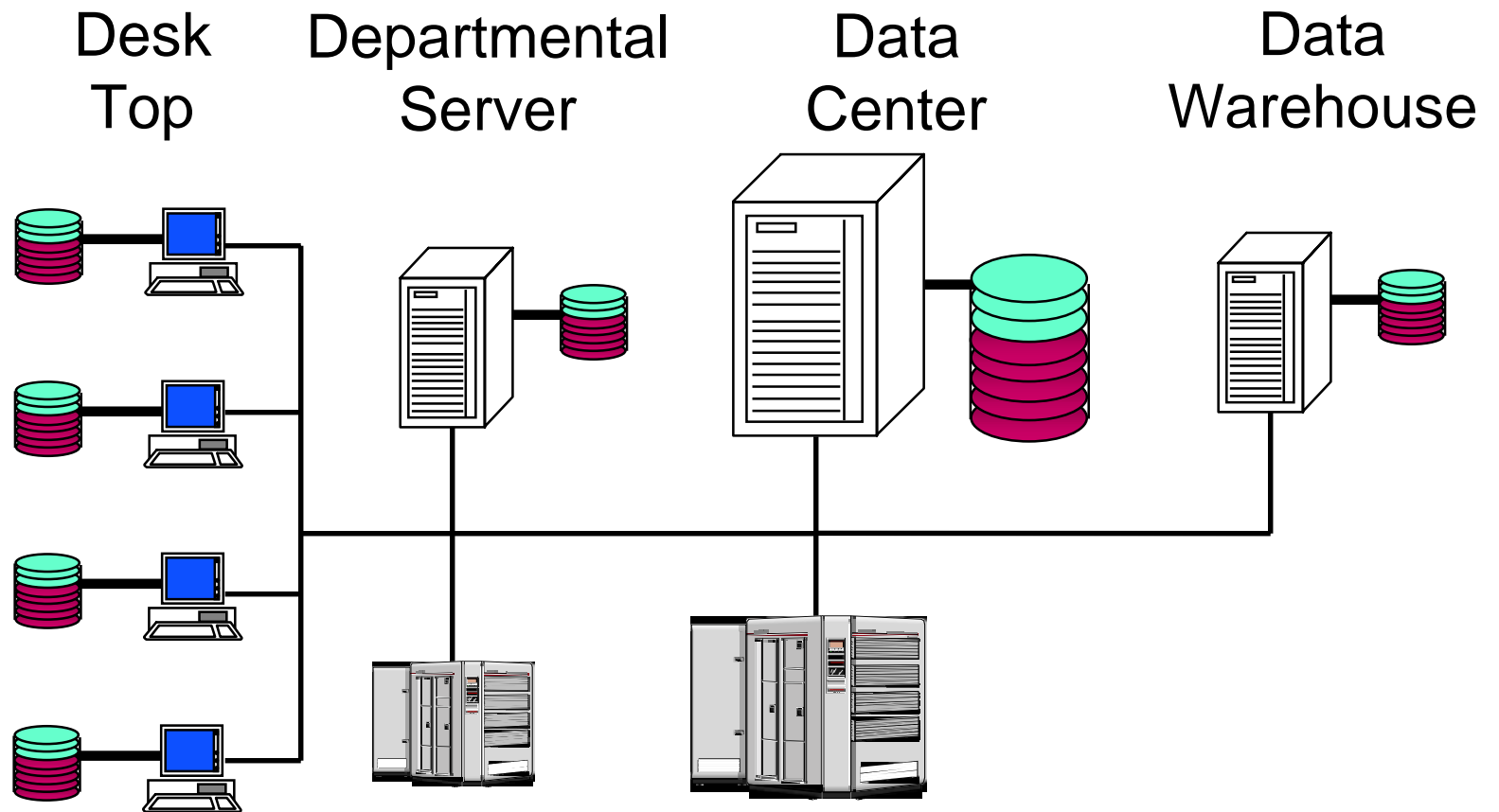
# UniTree Distributed Approach



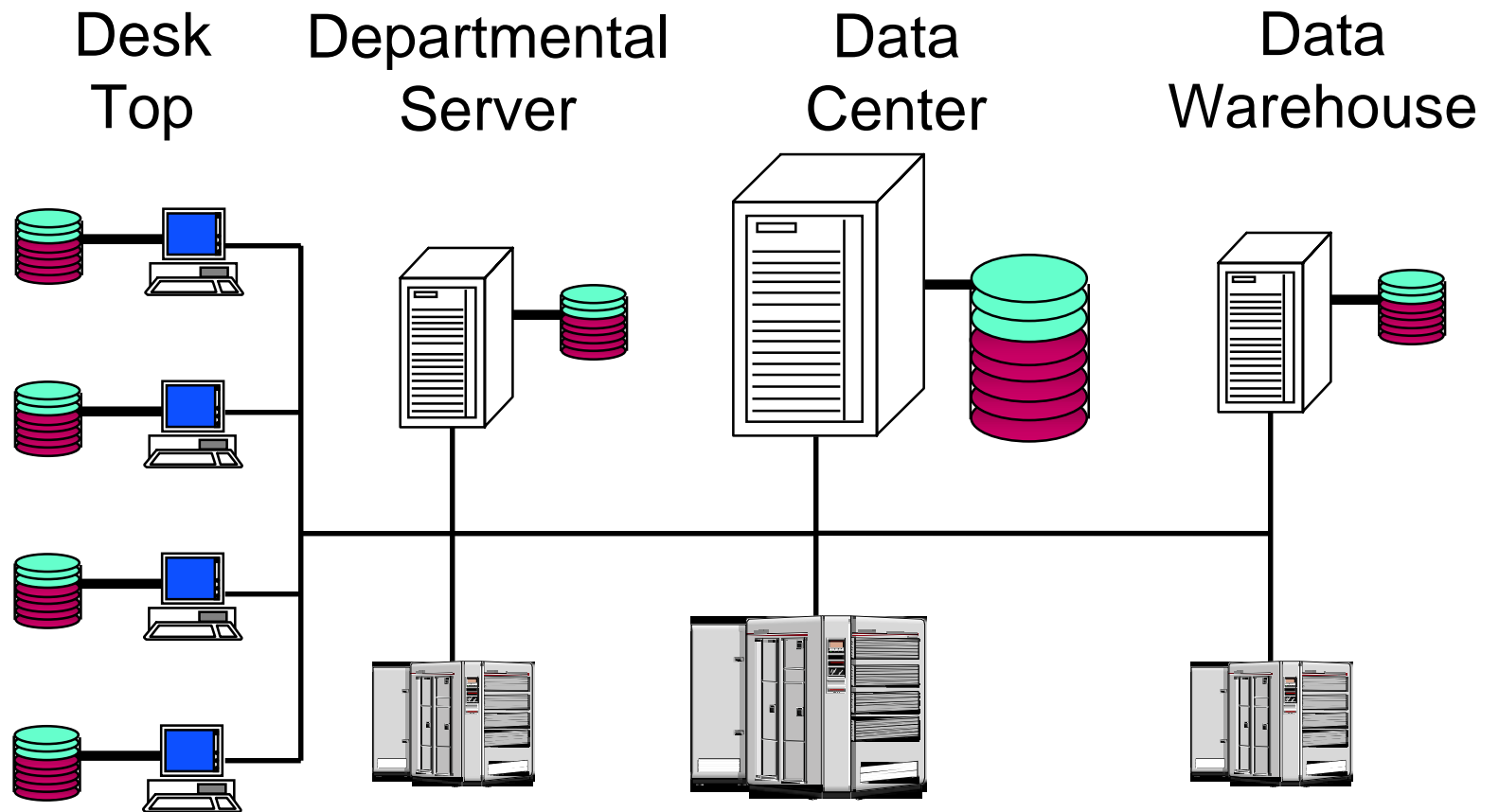
# UniTree Distributed Approach



# UniTree Distributed Approach



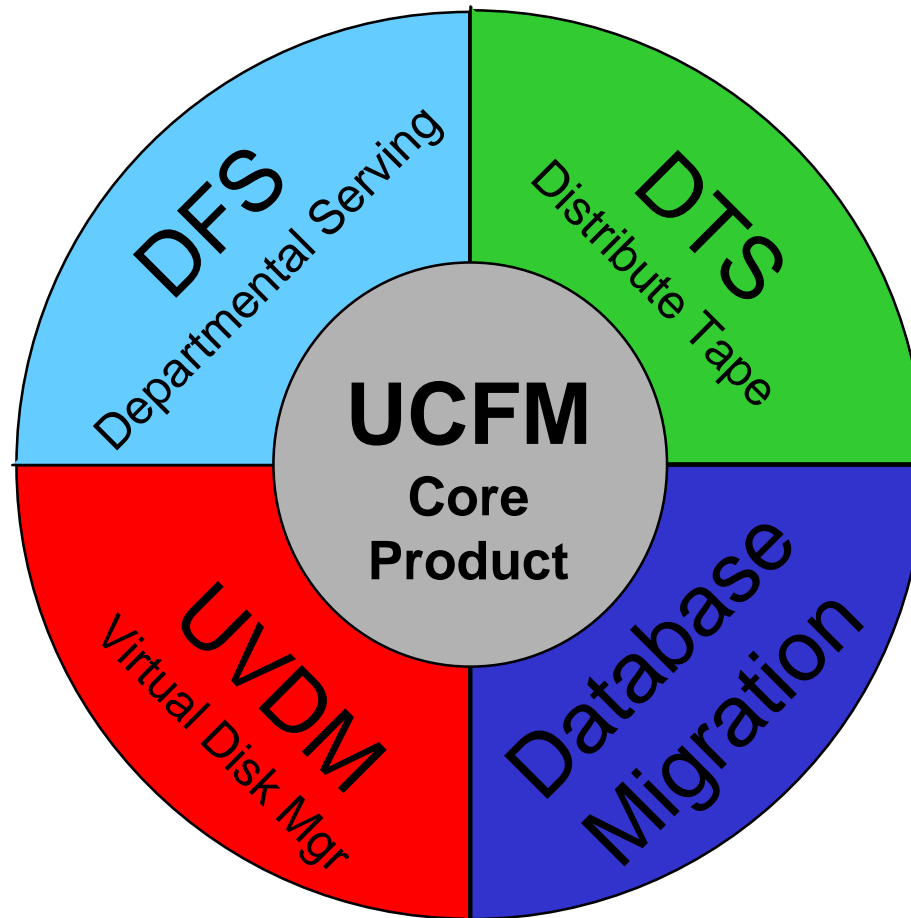
# UniTree Distributed Approach



# UniTree Product Set

- UCFM - Central File Manager
  - Core Product - Provides Industry Leading HSM Functionality, Tape Management, Performance and the UniTree File System
- DFS - Distributed File Server
  - Provides UCFM Functionality which migrates Data to Remote Libraries on a UCFM Server
- DTS - Distributed Tape System
  - Allows UCFM to Migrate Data to Multiple Distributed Libraries
- UVDM - Virtual Disk Manager
  - Allows Transparent Native File System Migration from local or client disk to UCFM

# UniTree Environment

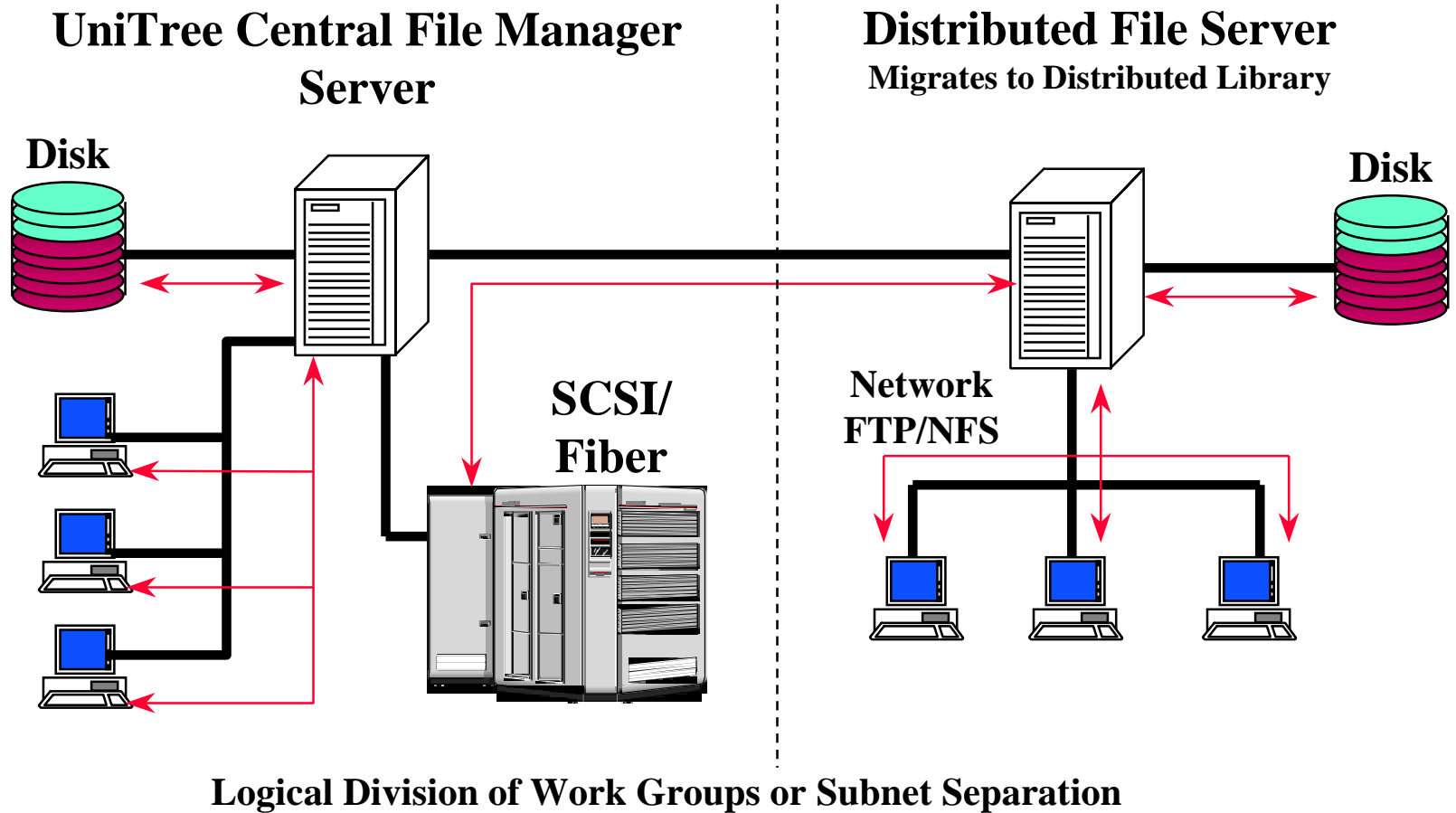




# Distributed File Server (DFS)

- Same Base Functionality as UCFM
- Migrates Data to Remote Library Resource that is Attached to a UCFM Server
- Provides Better Local Access for Departmental Environments

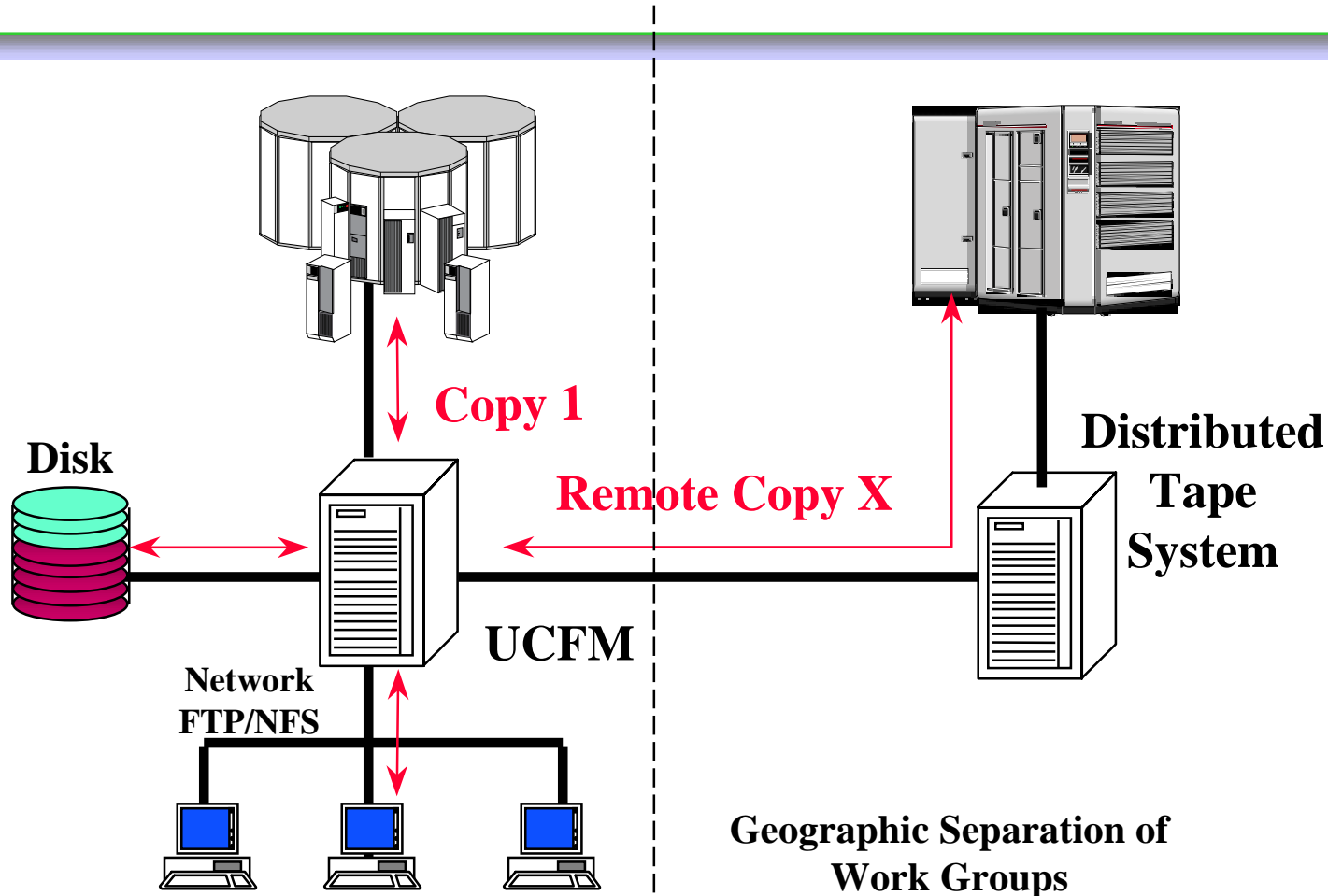
# Distributed File Server (DFS)



# Distributed Tape System (DTS)

- Provides Ability to Make Multiple Copies among Multiple Distributed Library Resources
- More Effectively Uses Distributed Resources
- Provides Automatic Off-Site Multiple Copy Redundancy

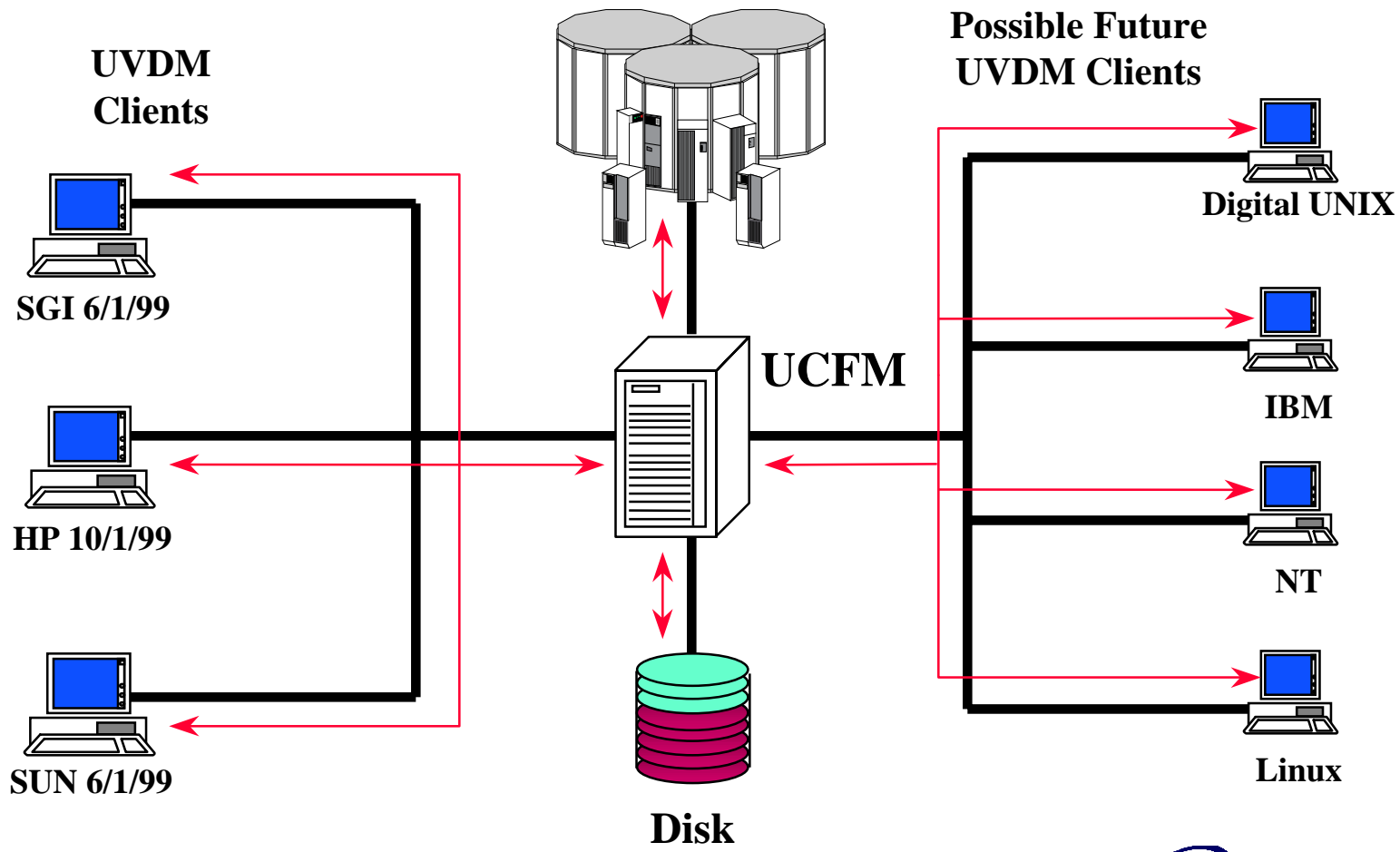
# Distributed Tape Server (DTS)



# UVDM - Virtual Disk Manager

- ❑ Migration from Native File Systems (UFS, XFS, VxFS, HFS, NTFS, etc...)
- ❑ Server or Client Based
- ❑ Native File System Performance
- ❑ Based on Industry Standard DMAPI(XDSM) Interface
- ❑ No Kernel Modifications
- ❑ Layer on Existing Loaded File Systems!
- ❑ Multiple Files Systems Under Management
- ❑ Excellent Portability
- ❑ Supports SUN & SGI (HP, NT, Digital in Future)

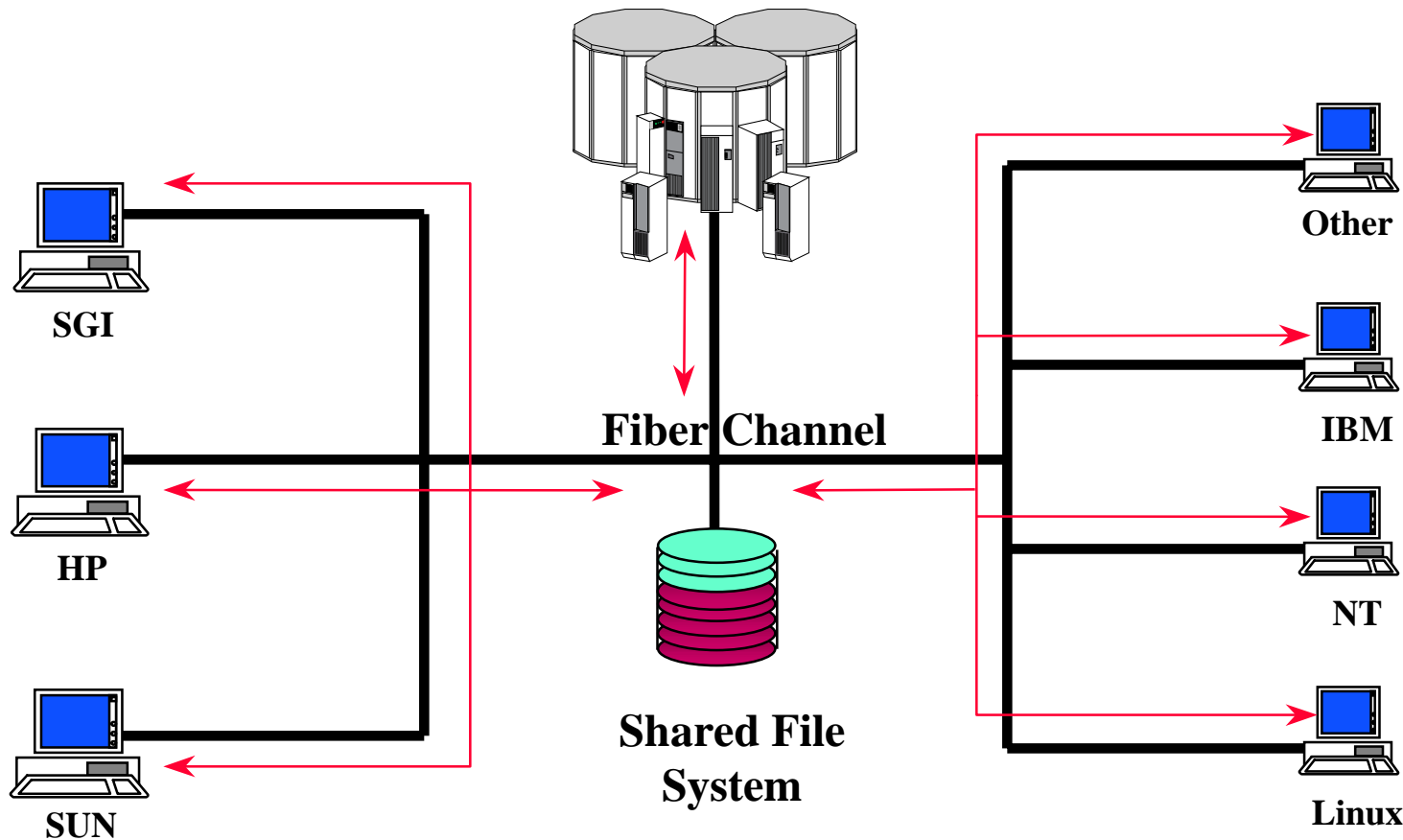
# UVDM - Virtual Disk Manager



# Shared File System - SANS

- Team with Fiber attached Shared File System Manufacturers (such as DataDirect, Mercury Computer, etc.)
- Provide Transparent HSM out of Shared File Systems

# Shared File System - SANS





# Heterogeneity a Must!

## □ Platforms Supported

- UCFM, DFS and DTS
  - SUN, SGI, HP, Digital UNIX, Linux
- UVDM
  - Existing - SUN & SGI
  - Future - HP, Digital UNIX, Auspex, NT

## □ Excellent Portability!

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# UniTree Software, Inc.

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□ Proven Technology

# UniTree Software, Inc.

*Empowering Enterprise Storage*

- Proven Technology
- High Performance



# UniTree Software, Inc.

*Empowering Enterprise Storage*

- Proven Technology
- High Performance
- Distributed / Modular Architecture

# UniTree Software, Inc.

*Empowering Enterprise Storage*

- Proven Technology
- High Performance
- Distributed / Modular Architecture
- Reliable

# UniTree Software, Inc.

*Empowering Enterprise Storage*

- Proven Technology
- High Performance
- Distributed / Modular Architecture
- Reliable
- Supportable

# UniTree Software, Inc.

*Empowering Enterprise Storage*

- Proven Technology
- High Performance
- Distributed / Modular Architecture
- Reliable
- Supportable
- Standards Based