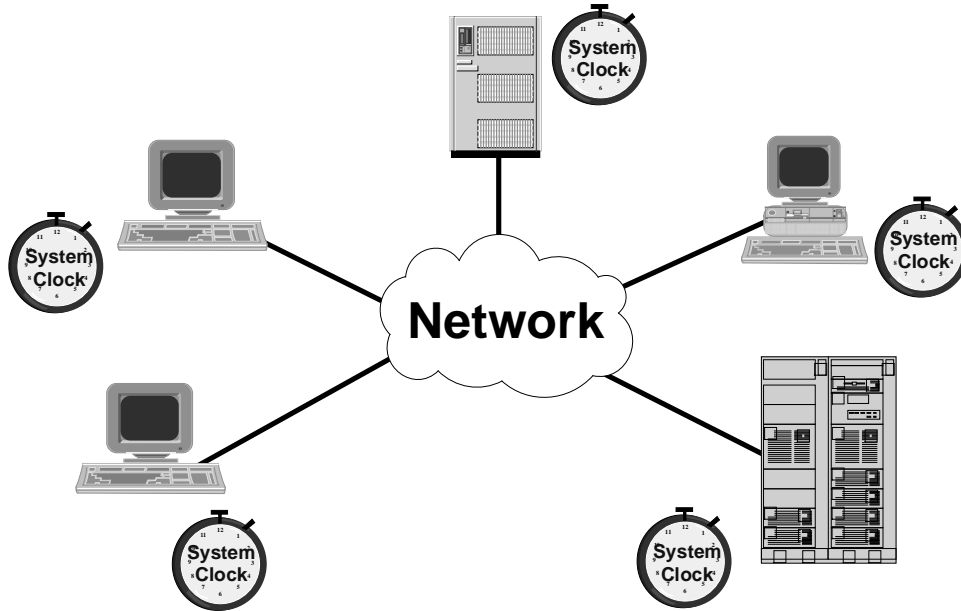


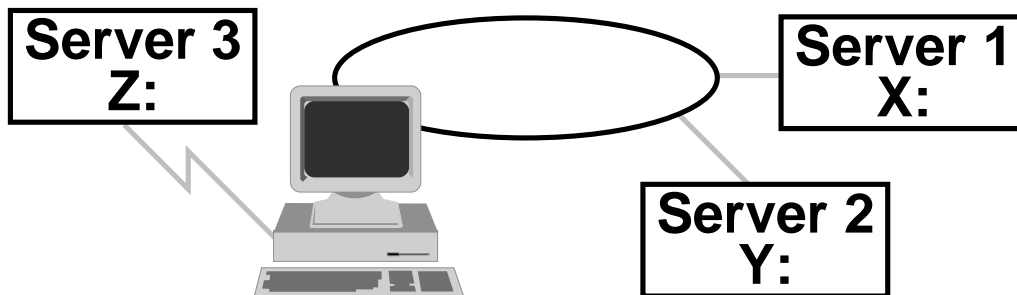
Distributed System Services

Time Services



Distributed System Services

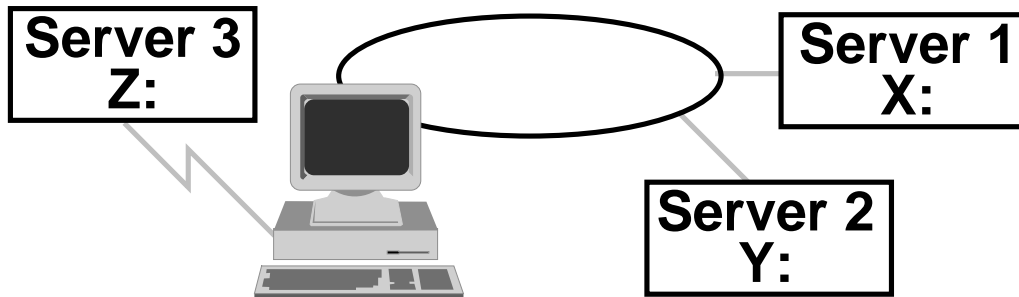
Distributed File System



- Extends Local File System Model to Network
- Location Transparency

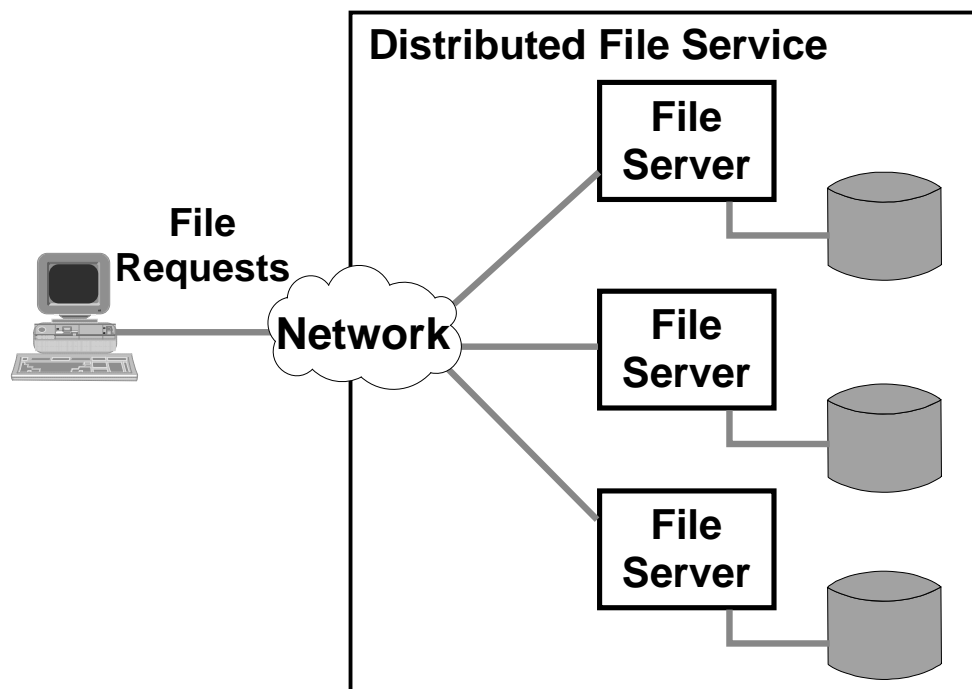
Distributed System Services

Distributed File System

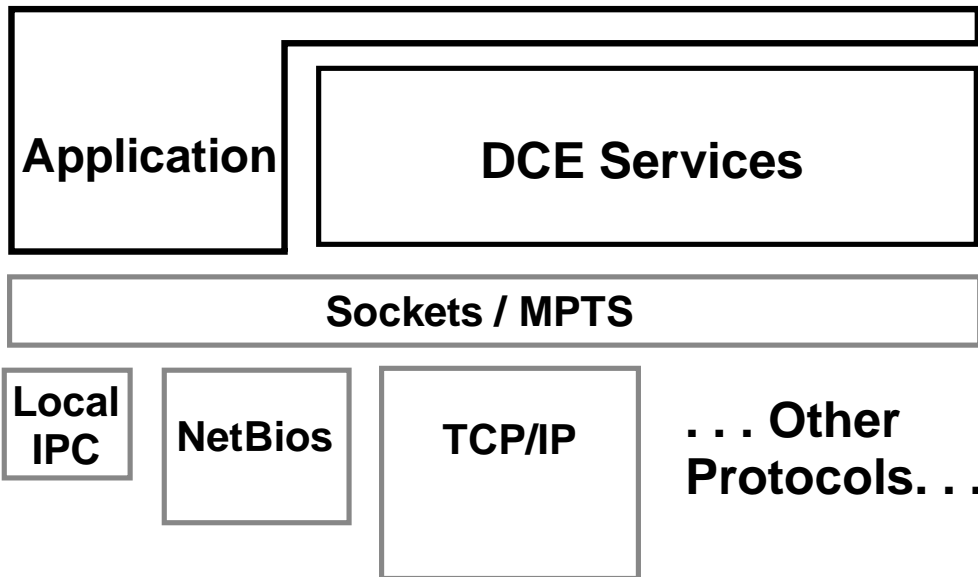


- High Performance, Improved Management
- Interoperability With Other File Systems

DCE Global File Access



Multi-Protocol Transport Services



Multi-Protocol Transport Services

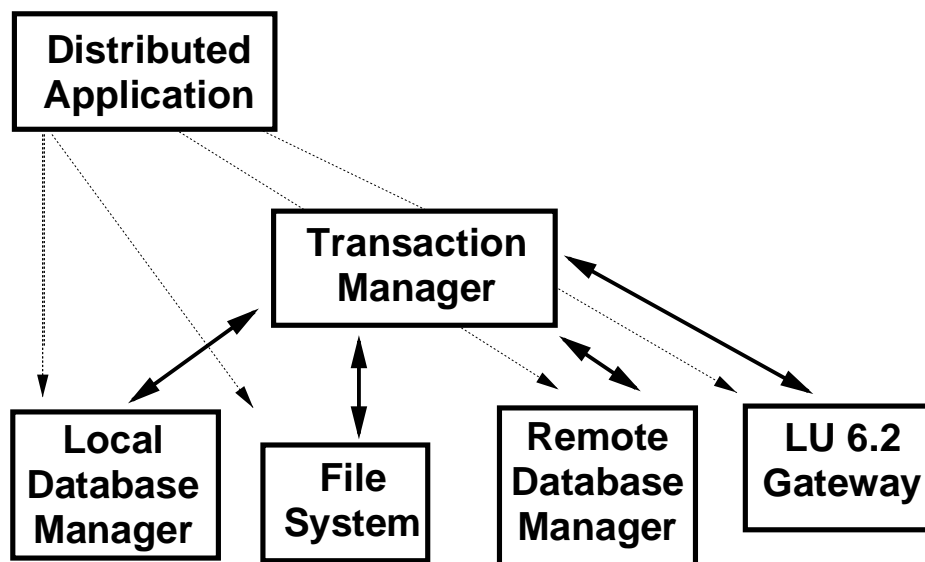
- **32 bit Distributed Application Programming Interface**
 - ▶ **Based on BSD Sockets**
 - ▶ **Implements IBM's Multi-Protocol Transport Network Architecture**
 - **Transport Protocol Independence**
 - ▶ **Supports OS/2 DCE(Beta), TCP/IP 1.2.1 Applications**

Multi-Protocol Transport Services

- **Protocols Supported**
 - ▶ **TCP/IP**
 - ▶ **Netbios**
 - ▶ **TCP/IP over Netbios**
 - ▶ **Local IPC**
 - ▶ **Others Planned**

Distributed System Services

Online Transaction Processing



Distributed OLTP System Structure



Transactional Monitor

Transactional Services

DCE Extensions
Operating System

Hardware

- Performance
- Configuration/Admin.
- Application Sched.
- Authorization
- Unit of work
- Locking
- Logging
- Recovery

Online Transaction Processing

● Features

- ▶ Transaction Services
 - Two-phase Commit and Recovery
 - Locking and Logging
- ▶ Transaction Monitor
 - Scheduling
 - Routing
 - Administration

Online Transaction Processing

- **Features**

- ▶ **Recoverable File System and Relational Database Access**
- ▶ **Familiar Programming Model**
 - **Transactional C**

- **Benefits**

- ▶ **Increased Availability**
- ▶ **Better Integrity**
- ▶ **High Volume Transaction Processing**

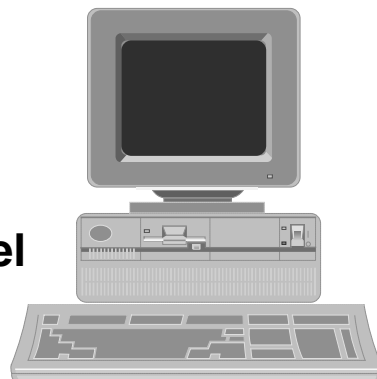
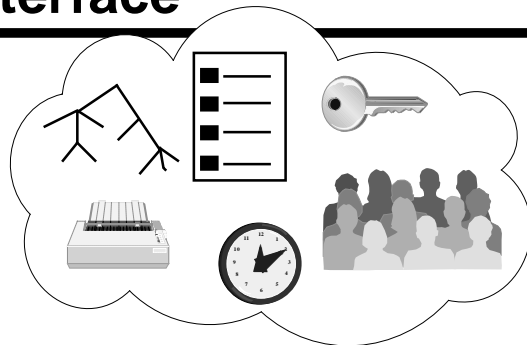
Graphical User Interface

- **Features**

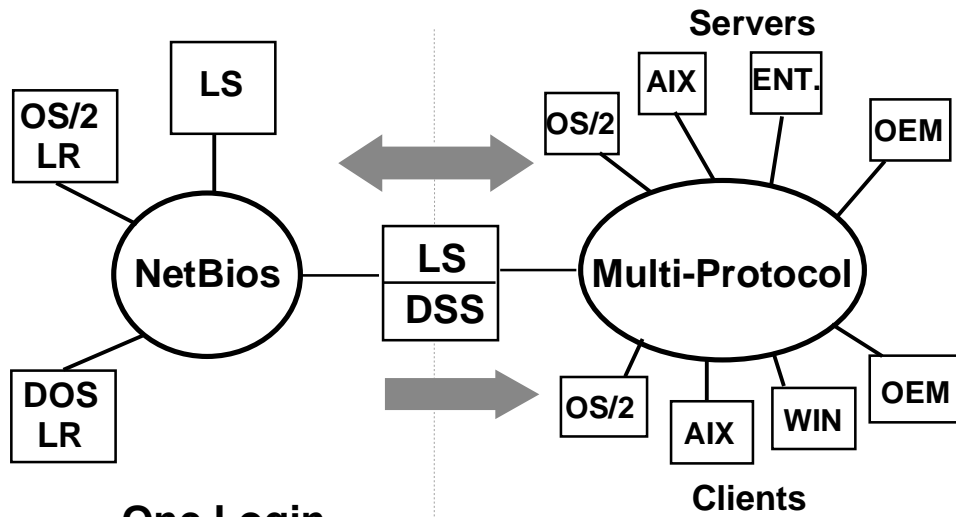
- **Single User Interface**
- **Single Admin. Interface**
- **Object-Oriented**

- **Benefits**

- **Local/Remote Transparency**
- **Common Look and Feel**
- **Easy to Use and Learn**



LAN System Evolution



- One Login
- Extended, Transparent Resource Access
- Powerful Administrative Capabilities
- Familiar/Advanced User Interface

DCE Chronology/IBM Rollout

1989	DCE RFT
1990	DCE Technologies Selected
1990-1991	IBM/OSF DCE Integration on RS/6000
1Q 1992	DCE 1.0 GA From OSF
3Q 1992	DCE 1.0.1 GA From OSF
Dec 1992	AIX/DCE 1.1
Jan. 1993	OS/2 DCE Beta
June 1993	AIX/DCE 1.2

IBM AIX DCE Offerings

- **Available TODAY**

- ▶ **AIX DCE Base Services/6000**
 - **Threads Service**
 - **RPC Runtime and IDL Compiler**
 - **Cell Directory Client**
 - **Time Service Client/Server**
 - **Security Server Client**
 - **Encina Base ****

****Optional Transaction Processing Client**

IBM AIX DCE Offerings

- **Available TODAY**

- ▶ **AIX DCE Cell Directory Server/6000**
 - **Distributed Name Service**
- ▶ **AIX DCE Security Server/6000**
 - **Authentication**
 - **User Registry**
 - **Privilege Server**

IBM AIX DCE Offerings

- **Available June, 1993**
 - **AIX DCE Enhanced Distributed File System/6000***
 - **Physical File System**
 - **Basic Distributed File System**

IBM AIX DCE Product Family Highlights

- **IBM Quality System Testing**
 - **Problem Diagnostics Capability**
 - **Performance Optimization**
- **AIX SMIT Installation**
- **AIX SMIT Cell Administration and Configuration**
- **On-line InfoExplorer DCE Documentation and help text**

IBM AIX DCE Product Family Highlights

- **Threads Safe C Library and Thread-aware Debugger**
- **DCE Client on Diskless RISC System/6000s**

IBM OS/2 DCE Beta

- **Available TODAY**
 - **OS/2 DCE Base Services**
 - **Threads Service**
 - **RPC Runtime and IDL Compiler**
 - **Cell Directory Client**
 - **Time Service Client/Server**
 - **Security Server Client**
 - **OS/2 DCE Cell Directory Server**
 - **Distributed Name Service**

IBM OS/2 DCE Beta

- ▶ **OS/2 DCE Security Server**
 - ▶ **Authentication**
 - ▶ **User Registry**
 - ▶ **Privilege Server**
- ▶ **Enhancements**
 - ▶ **Multi-Protocol Transport Service for 32-bit Socket I/F to TCP/IP**
 - ▶ **Interoperable with AIX/6000 DCE Product Family**

IBM OS/2 DCE Beta Program Details

- **Package Includes:**
 - ▶ **DCE Software for up to 10 OS/2 Clients**
 - ▶ **DCE Cell Directory Server Software**
 - ▶ **DCE Security Server Software**
 - ▶ **Data Privacy Options: Full or Password-Only Encryption**

IBM OS/2 DCE Beta Program Details

- **Package Includes:**

- ▶ **Cost: \$140 (US) plus shipping, call 1-800-IBM-3040**
- ▶ **Cost: \$190 (Canada) plus shipping, call 1-800-465-2222**
- ▶ **No charge: Electronic Delivery (US and Canada)
Order via FAX 1-512-838-2433 or
PROFS AUSVM1 (DCEREQ)**

IBM OS/2 DCE Beta Program Details

- **Service/Support**

- ▶ **No Charge Technical Support - "Best Efforts"**
- ▶ **Comuserve OS2DF2 Forum, DCE Section**
- ▶ **OS2DCE Forum on OS/2 Bulletin Board (OS2BBS) and IBMPC Disk**

IBM OS/2 DCE Beta Program Details

- **Developer Assistance Program**
 - ▶ **5 Day Course in Austin, Texas**
 - ▶ **Lab Exercises and Lectures Specific to OS/2 DCE Environment**
 - ▶ **Begins in February, 1993**

IBM DCE Direction

- **Family of DCE Offerings**
 - ▶ **AIX**
 - ▶ **OS/2**
 - ▶ **Windows**

IBM DCE Direction

- **Common Functionality; Interoperability**
 - ▶ **DCE Base Services**
 - ▶ **DCE Cell and Global Directory Services**
 - ▶ **DCE Security Services**
 - ▶ **Distributed File System**
 - ▶ **Online Transaction Processing**
 - ▶ **Application Development Tools**
 - ▶ **Productivity Tools**

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