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Plaintiff's Exhibit
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Comes V. Microsoft

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Microsoft Operating Systems Products

Windows

Presentation Manager

PM/X

MS-DOS

OS/2

UNIX



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Microsoft Systems Software Business

- 1980-90: The DOS decade
 - >30 million copies sold!
 - An industry born
- 1990-2000: The challenge
 - Convince DOS users to go graphical (Windows, OS/2 < 5% of DOS today)
 - Replace DOS with OS/2, not DOS extenders or UNIX
 - Sell workgroup computing and LANs

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Why Graphical User Interface?

- Ease of use - "Point and click", "WYSIWYG"
- Consistency - Applications "look/feel" similar
- Productivity via multiple apps: 
- Share data - "cut and paste"
- Automatic updates - "hot links" 

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Common User Access (CUA) Is The Key

- **CUA user interface is the most popular graphical interface in the world today**
- **Compatibility of interface across Windows and OS/2 makes it possible to develop DOS and OS/2 applications that**
 - **Have identical functionality**
 - **Have identical documentation**
 - **Share common code**
- **Character apps like Works share CUA keyboard and interface consistency**

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Windows And OS/2

Microsoft Graphical User Interface ("CUA")



Windows



OS/2



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Windows and OS/2

Microsoft Graphical User Interface ("CUA")



Windows



(640 KB min) (1-2 MB typical) OS/2



(2 MB min) (4 MB typical)

Windows:

- GUI for DOS
- "1 MB" Design Point
- Windows 3.0 provides "extender" for DOS and Windows apps

Puts limits on future features -
 Future path is home/multimedia

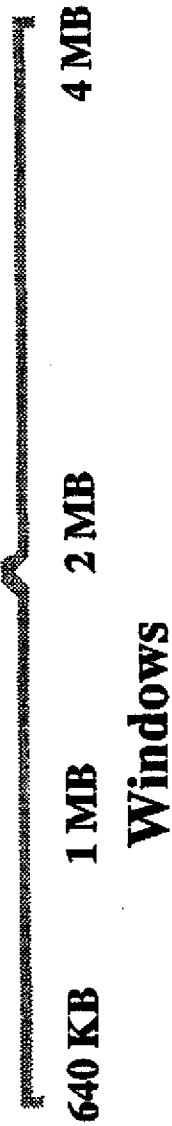
Rel 3.0 does not change
 positioning vs OS/2

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Windows and OS/2

Microsoft Graphical User Interface ("CUA")



(640 KB min)

(1-2 MB typical)

OS/2

• Long term

(2 MB min)

(4 MB typical)

- Has the most apps.

- Windows apps. will run

- PM apps.

• Platform for distributed computing

- Client and Server

• Platform for the future

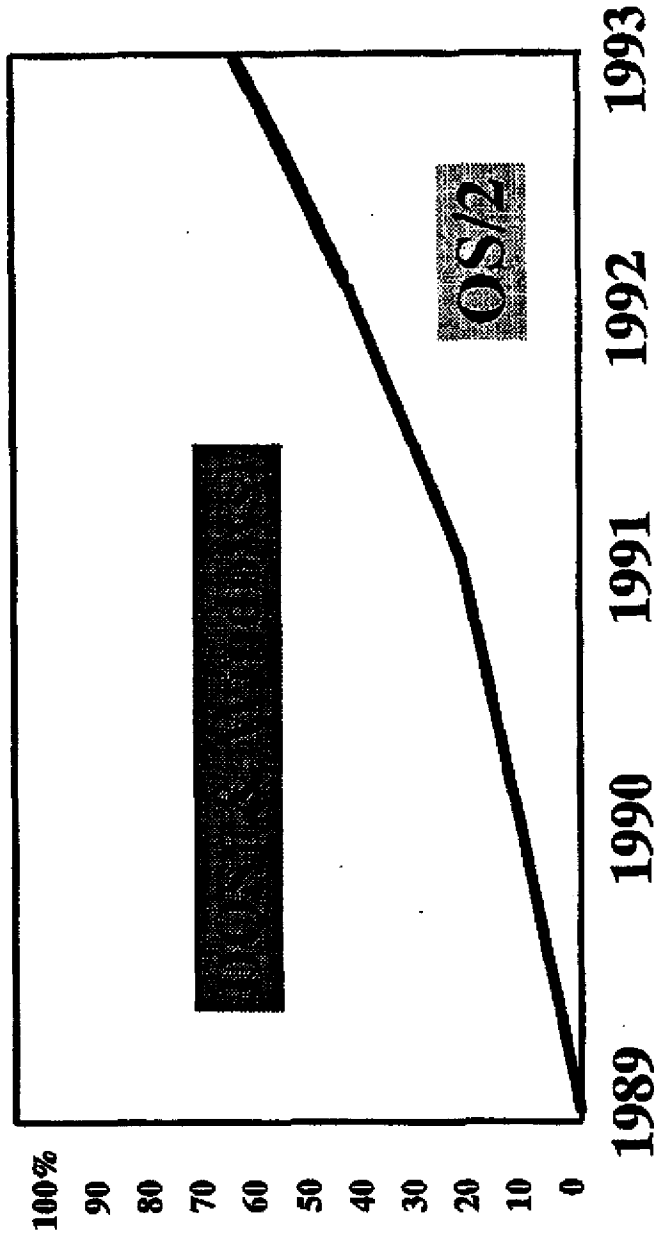
- 32-bit, RISC Security ...

OS/2 will establish itself more quickly than Windows did

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Operating System Volumes



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Making OS/2 Successful

- **Strong technology**
- **Microsoft-IBM commitment**
 - **Identical product - standard edition**
 - **Joint marketing**
- **ISV support and applications**
- **Training/technical support**
- **Marketing programs**
- **End-user acceptance**

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OS/2 1.2 - "More Complete"

- High-performance file system
- GUI enhancements ("3D")
- Dual boot
- DOS box > 520 KB

OS/2 1.1

- Presentation Manager subsystem
- CUA I/F

OS/2 1.0

- Multitasking
- Protect mode
- Command line I/F



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Future

- Object model
- Distributed resource managers
- RISC
- Multiprocessor
- POSIX

OS/2 2.0 - "Better DOS than DOS"

- Multiple DOS sessions - 620 KB plus GMS
- Better memory usage, i.e., smaller
- Demand paging
- Large linear address (32-bit)

Q4/89 Mid 1990

OS/2 2.0 SDK

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OS/2 The Platform For The Future

Distributed computing

- Server features (heavy duty multitasking for high loads)
- Peer services - client at same time as server (coming in LAN MAN 2.0)

Needed for

- Maximum flexibility in distributed computing
- Advanced network management schemes

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OS/2 The Platform For The Future

32-Bits

- Coming in OS/2 2.0
- Boosts performance
- Needed for
 - Performance sensitive apps (CAD/CAM)
 - "UNIX style" applications (Interleaf)

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OS/2 The Platform For The Future

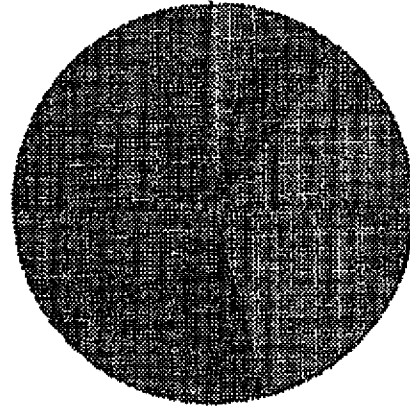
RISC

- 386, 486 will be dominant for next 3-5 years - 486 performance - "10-15 MIPS" - SPARC
- More "x86" products with higher performance still coming
- RISC technology has long-term possibilities
- Microsoft investing in making OS/2 portable
- OS/2 will be ready for RISC if and when it becomes an important factor

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Allocations Of Development Resources (75 ISVs)



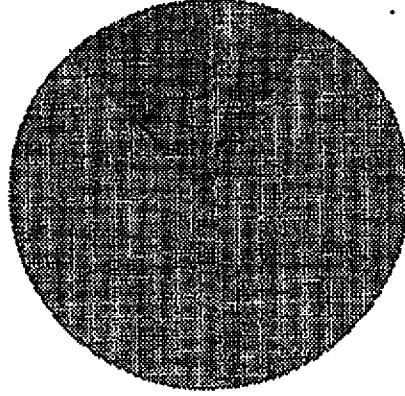
1988

■ DOS

■ OS/2

■ UNIX

■ Macintosh



1990

Source: Dataquest Incorporated Dec 88

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Applications

Windows

OS/2

Microsoft Excel	Yes	Yes
Microsoft Word	Yes	Yes
Microsoft PowerPoint	Yes	Yes
Microsoft Project	Yes	Yes
Aldus PageMaker	Yes	Yes
AutoCAD		Yes
Borland Paradox		Yes
Lotus 1-2-3		Yes
IBM E E		Yes
IBM Office		Yes
Micrografx	Yes	Yes
Microrim		Yes
Samna Ami	Yes	Yes
WordPerfect		Yes
Ventura Publisher		Yes

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OS/2: Design Wins

- **Several industries are building line of business applications on OS/2; sophisticated applications which technically couldn't be supported by DOS**
- **Airline industry**
- **Major European airline consortium**
 - **OS/2 and LAN-based reservations system for European travel agents**

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OS/2: Design Wins

- **Airline industry (cont'd)**
 - **Workstation front end to host-based reservation system for U.S. carrier**
 - **System One: fare-auditing system for reservations**
- **Deutsches Bundespost (German PTT)**
 - **OS/2-based information system to be installed on the service counter of every German post office**

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OS/2: Design Wins

- **Kentucky Fried Chicken - "OS/2 really cooks"**
- **Kitchen management with M/F connect**
- **Multitasking, server-style application**

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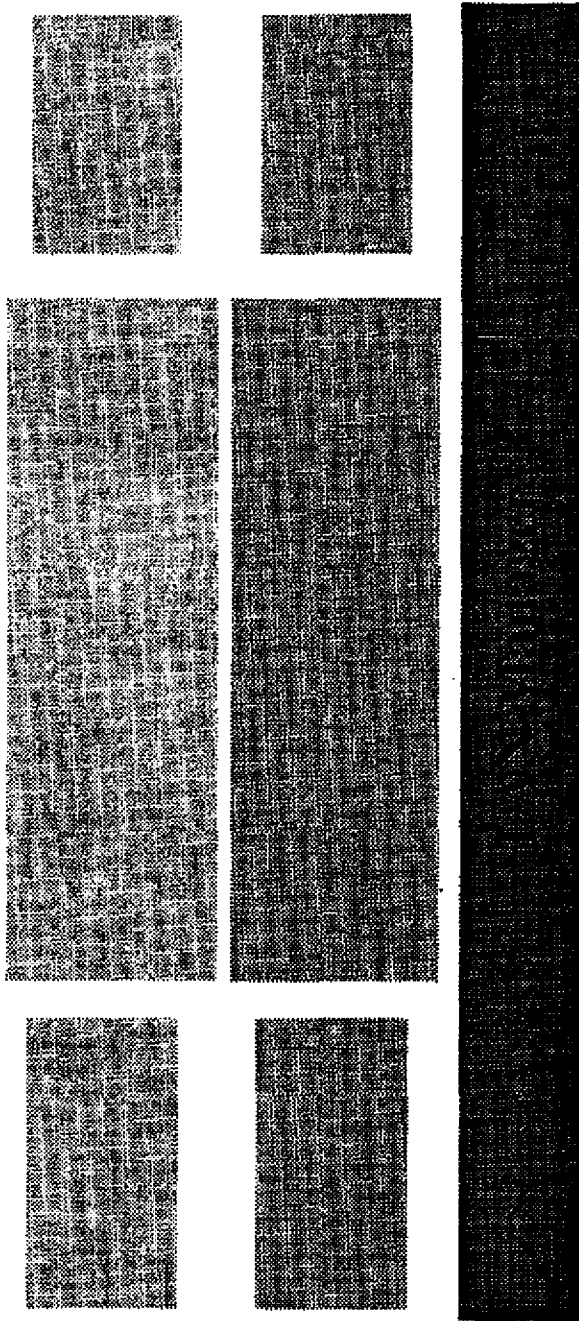
Microsoft UNIX Activities

- UNIX will not go away, will be factor:
- Supply UNIX to those that demand it thru SCO
- "PM/X" - Invest in technology to port PM to UNIX
 - Increase ISV confidence in PM as standard
 - Do not sell to end-users
- "LM/X" - LAN Manager Server code for UNIX

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Microsoft Connectivity Strategy

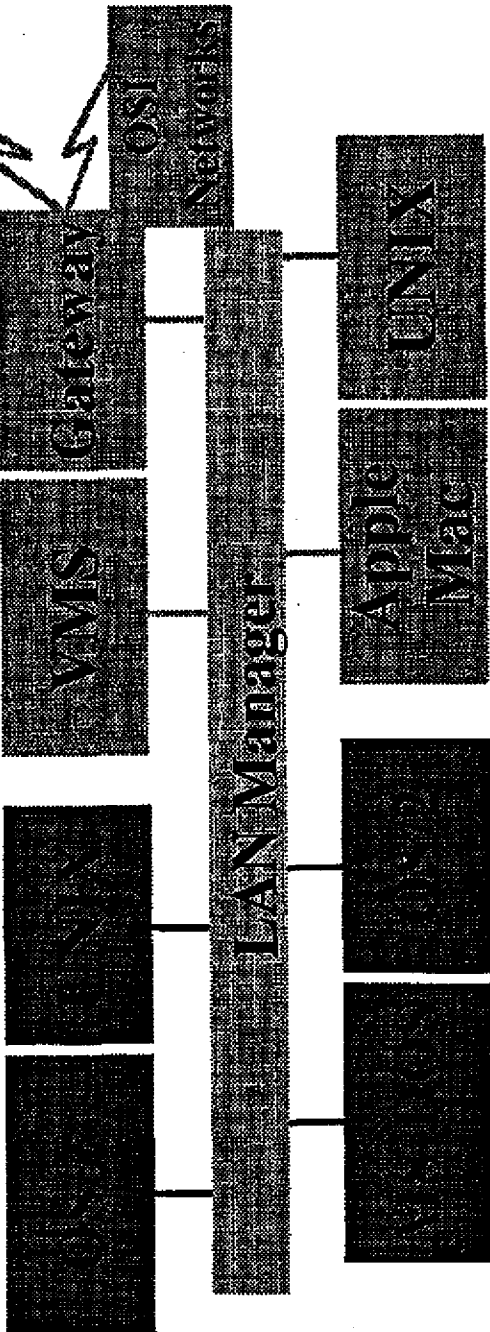
- Provide standard connection from PCs to servers
- Complement existing standards
- Provide foundation for client-server computing
- Provide mainframe connectivity

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1989 Future

Standard LAN Servers

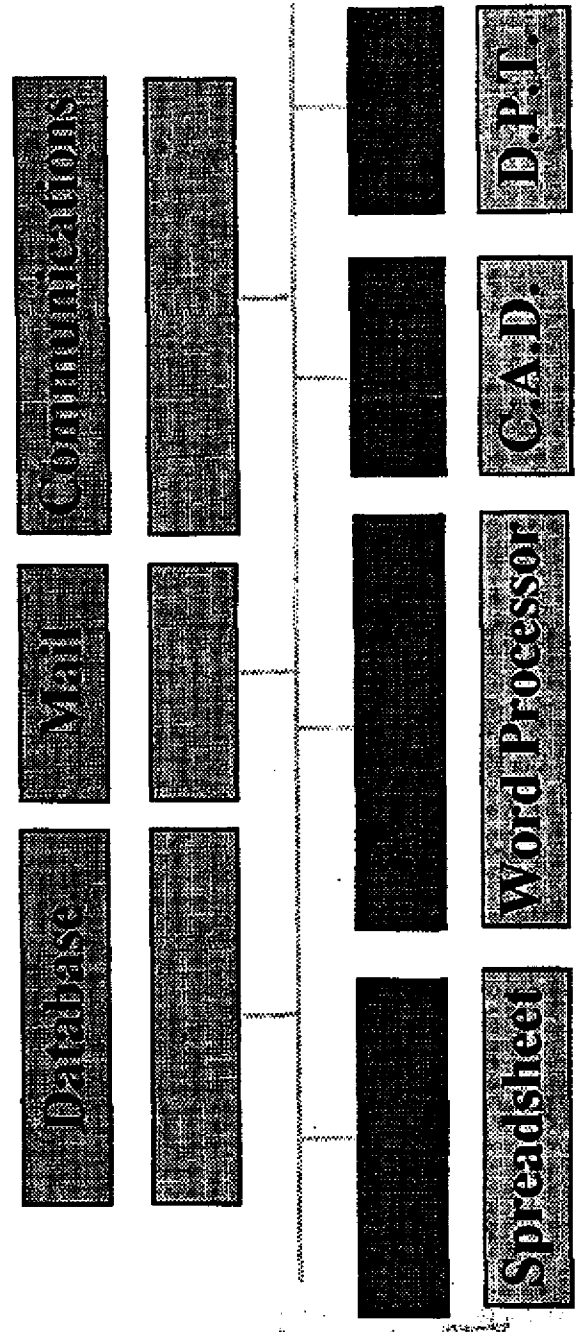


Standard PC Workstations

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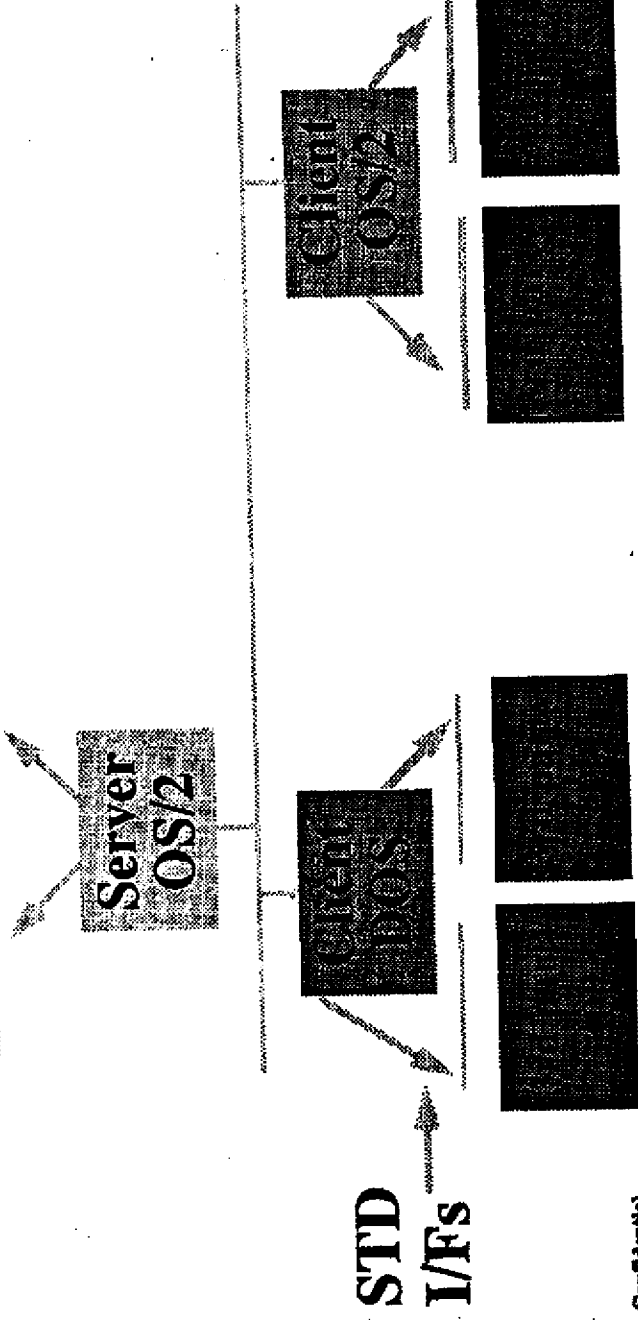
New Direction For Applications



- Solutions built from standardized server/client application "building blocks"
- Multi-vendor
- Information at your fingertips, combined with wide variety of graphical desktop applications
- Will yield next major boost to industry growth

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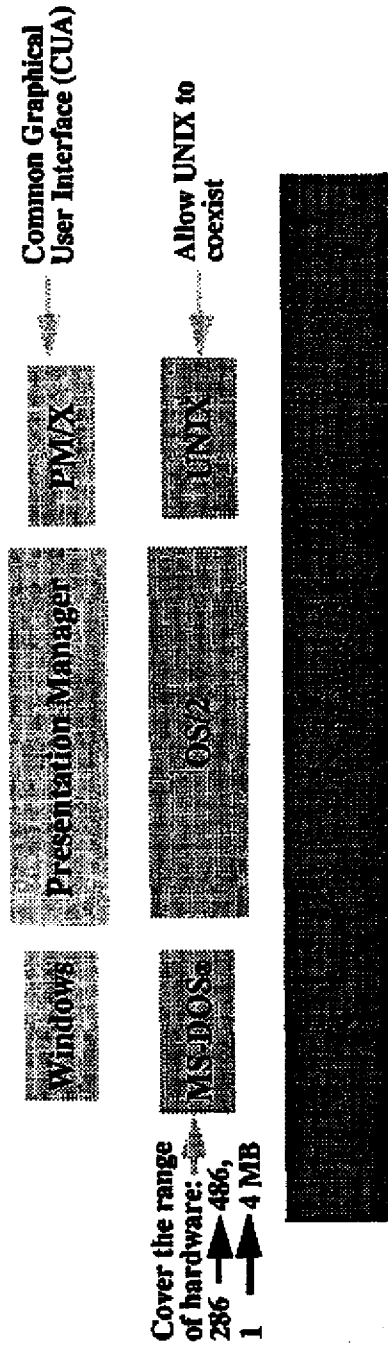
Microsoft Distributed Applications Connectivity Support



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Key Messages For Your Accounts

- **Sell Graphical User Interface (GUI)**
 - **Windows and OS/2**
 - **Sell OS/2 for the Server**
 - **Do their development on/for OS/2 -
Corporate environment is distributed**
 - **Get your accounts to buy 386SX, 386!**

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Microsoft Will Win With OS/2!

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