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# Digital's Product Strategy

Digital Equipment Corporation Proprietary and Confidential  
Material Subject to Non-Disclosure Terms and Conditions

Digital's Product Strategy  
January 95 # 1



# Non-Disclosure Agreement

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- ❑ Digital makes no warranties regarding the accuracy of this information. Digital does not warrant or represent that it will introduce any product to which the information relates. It is presented for evaluation by the recipient and to assist Digital in defining product direction.



# Why Networked Computing?

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- ❑ Customer needs
- ❑ Technology trends
- ❑ Digital's capabilities

# The Enabling Effect of Networked Computing

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Enabling Technology

The Promise

The Change

*Interenterprise Computing*

*Integrated Systems*

*Workgroup Computing*

**Extended Enterprise**

**Integrated Organization**

**High-Performance Team**

*Recasting External Relationships*

*Organization Transformation*

*Business Process Redesign*

Tapscott and Caston, *Paradigm Shift  
The New Promise of Information Technology*  
McGraw Hill, New York, 1993

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# Technology Trends *continued*

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*What does it mean?*

- Compute anything
- Store everything
- Connect anywhere

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# Digital's Product Strategy

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*Leadership networked computing systems to solve customer problems*



# Delivering Leadership Networked Computing Systems

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- Computer systems
- Networks
- Software
- Partners
- Services



# Computer Systems Strategy

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- ❑ Scalable systems families
  - » Intel and Alpha personal systems
  - » Intel and Alpha servers
  
- ❑ The operating systems customers want
  - » UNIX
  - » OpenVMS
  - » Windows and Windows NT
  
- ❑ Leadership compilers and CASE tools





# Intel Desktops

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- Venturis: general business users
  - » 486/SX2 to Pentium/60
  - » Local bus graphics, storage, networking
  - » Slimline and full profile desktop packages
  
- Celebris: advanced business users
  - » Upgradable, 486/DX2 to Pentium/90
  - » PCI 64b graphics, storage, networking
  - » Slimline and full profile desktop packages
  
- XL: power users
  - » Upgradable, Pentium/60, Pentium/90, Alpha/233
  - » PCI 64b graphics, storage, networking
  - » Minitower package



# Intel Servers

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- Prioris MTE: entry level file server
  - » 486 through Pentium
  - » Fast IDE or SCSI, microtower package
  
- Prioris XL: midrange file server
  - » Upgradable, 486/66 to dual Pentium/100
  - » 20 MB/s SCSI, PCI, miditower package
  
- Prioris HX: application servers
  - » Upgradable, uni, dual, or SMP Pentium/90, 100
  - » ECC memory, N+1 power, hot swap
  - » Widetower package



# Intel Notebooks

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- HiNote: full featured, small footprint
  - » 8.5" x 11", 1.5"/1.7", 4.8 - 5.5 pounds
  - » 486 SX/33, 486 DX2/50, 486 DX4/75
  - » Monochrome, dual scan, or TFT screens
  - » Full travel keyboard, integrated trackball, PCMCIA
  
- HiNote Ultra: mobility and performance
  - » 8.5" x 11" x 1"/1.2", 3.7 - 3.9 pounds
  - » 486 SX/33, 486 DX2/50, 486 DX4/75
  - » Monochrome, dual scan, or TFT screens
  - » Full travel keyboard, integrated trackball, PCMCIA
  - » Snap-on zero footprint floppy or multimedia



# Operating Systems

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<u>Family</u>	<u>Intel</u>	<u>Alpha</u>
UNIX	SCO UNIX	OSF/1
Windows	Windows, NT	NT
OpenVMS	no	yes
NetWare	yes	no
NextStep	yes	no
real-time	no	yes



# Software Strategy

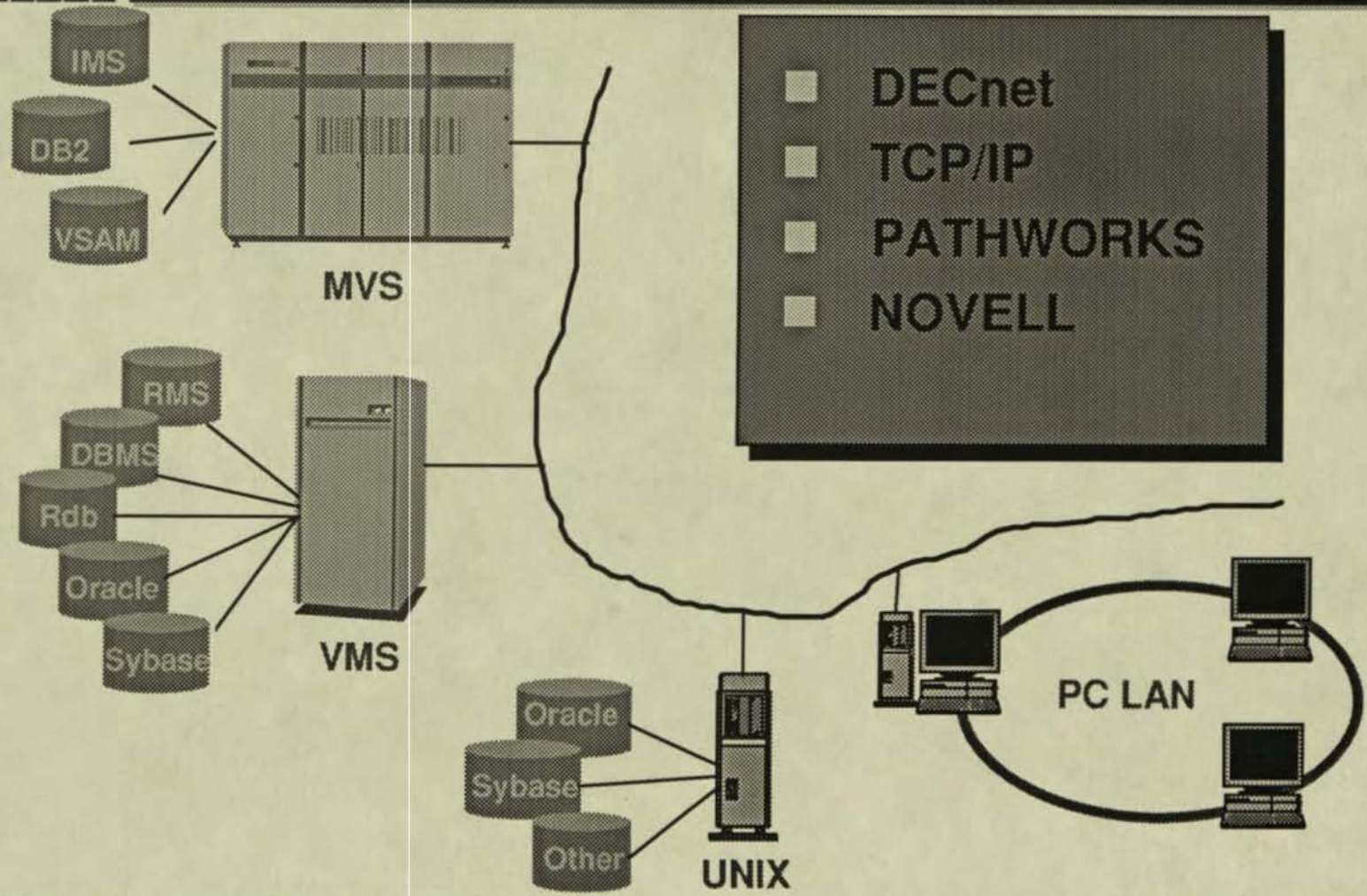
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*Leadership in networked computing, today and tomorrow*

- Today: client/server
  - » Network services foundation
  - » Upsizing: group productivity
  - » Downsizing: the distributed enterprise
  
- Tomorrow: universal connectivity
  - » Compute anything
  - » Connect everywhere
  - » Store everything

# Typical Enterprise Environments

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# Client/Server Foundation

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- ❑ Backbone services based on open standards
  - » Transport (TCP/IP and OSI)
  - » Naming and security (DCE)
  
- ❑ PC and PC LAN integration
  - » LAN Manager, APPLEtalk, NetWare
  - » Any client can access any server
  
- ❑ Gateways to legacy systems
  
- ❑ Network objects



# Network Objects

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- ❑ Object-oriented paradigm to hide distributed computing complexity
  - » Partition with formal interfaces
  - » Encapsulate and hide structural details
  - » Send messages, receive events
  
- ❑ Available on key platforms: Common Object Model
  - » Integrates Microsoft OLE and OMG CORBA object models
  - » Microsoft provides OLE in Windows and Windows NT
  - » Digital provides ObjectBroker based on CORBA





# Client/Server Upsizing

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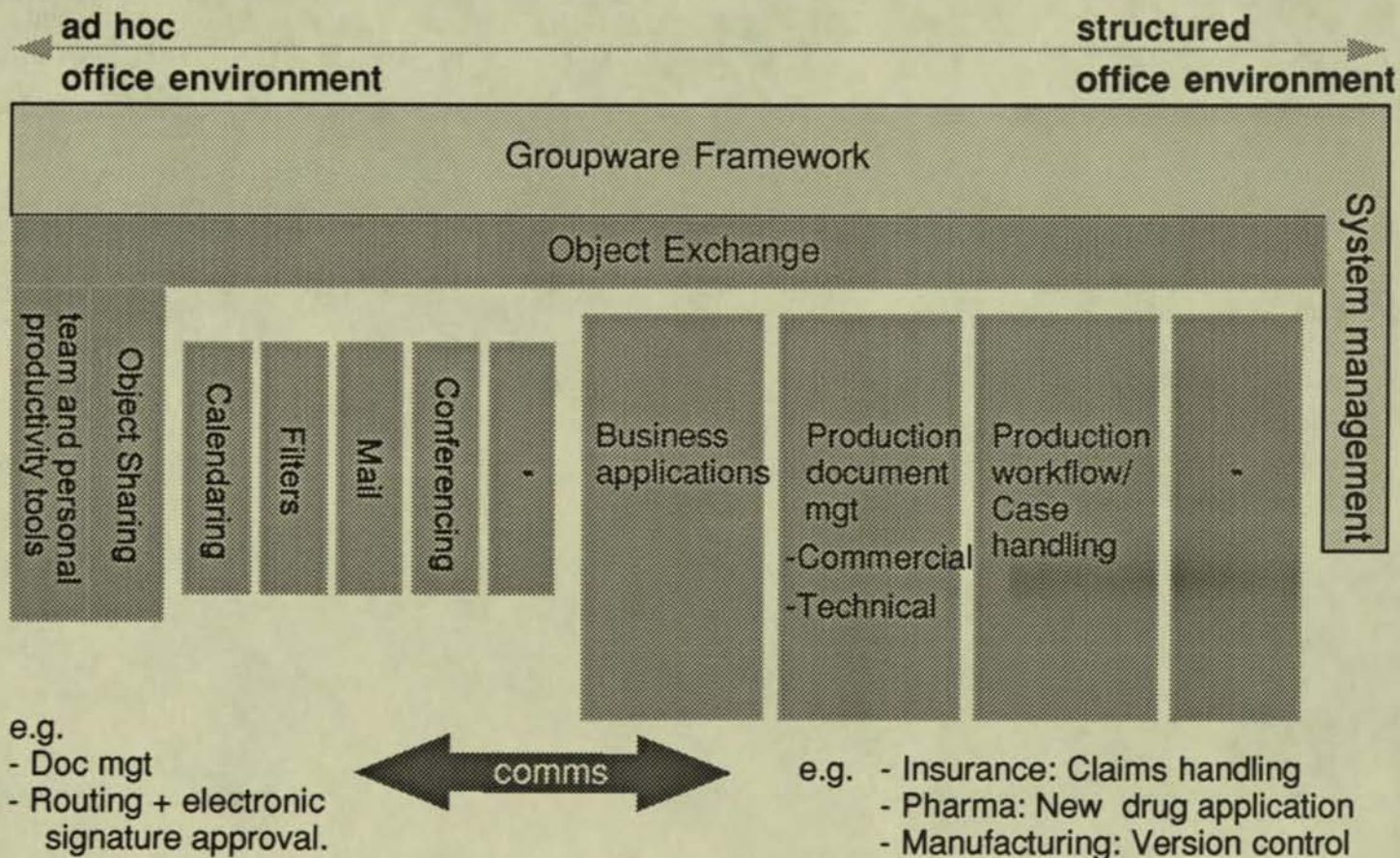
*From group connectivity to group productivity*

- PathWorks Universal Client: integrating the LAN
  - » Single network-wide login
  - » Person and resource directories (white and yellow pages)
  - » Transparent heterogeneous server access
  - » Internet access
  
- ManageWorks: managing the LAN
  - » Windows-based management station
  - » Manages heterogeneous LAN servers

- LinkWorks
  - » New technology for office integration
  - » Integrates applications to support end user processes
  - » Document management, workflow, mail, administration
  
- ALL-IN-1/TeamLinks
  - » Allows ALL-IN-1 users to adopt client/server computing
  - » Document management, workflow, mail, administration

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# LinkWorks



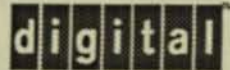


# Client/Server Downsizing

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*Creating, operating, evolving the distributed enterprise*

- ❑ Data management and integration  
- OpenVMS: Rdb, Oracle, Sybase, Ingres, Progress
- ❑ Transaction processing  
- Oracle, Ingres, Informix, SQL Server
- ❑ Messaging and mail
- ❑ Management



# Data Management

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- All popular packages on relevant platforms
  - » UNIX: Rdb, Oracle, Sybase, Ingres, Informix, Progress
  - » OpenVMS: Rdb, Oracle, Sybase, Ingres, Progress
  - » Windows NT: Rdb, Oracle, Ingres, Informix, SQL Server

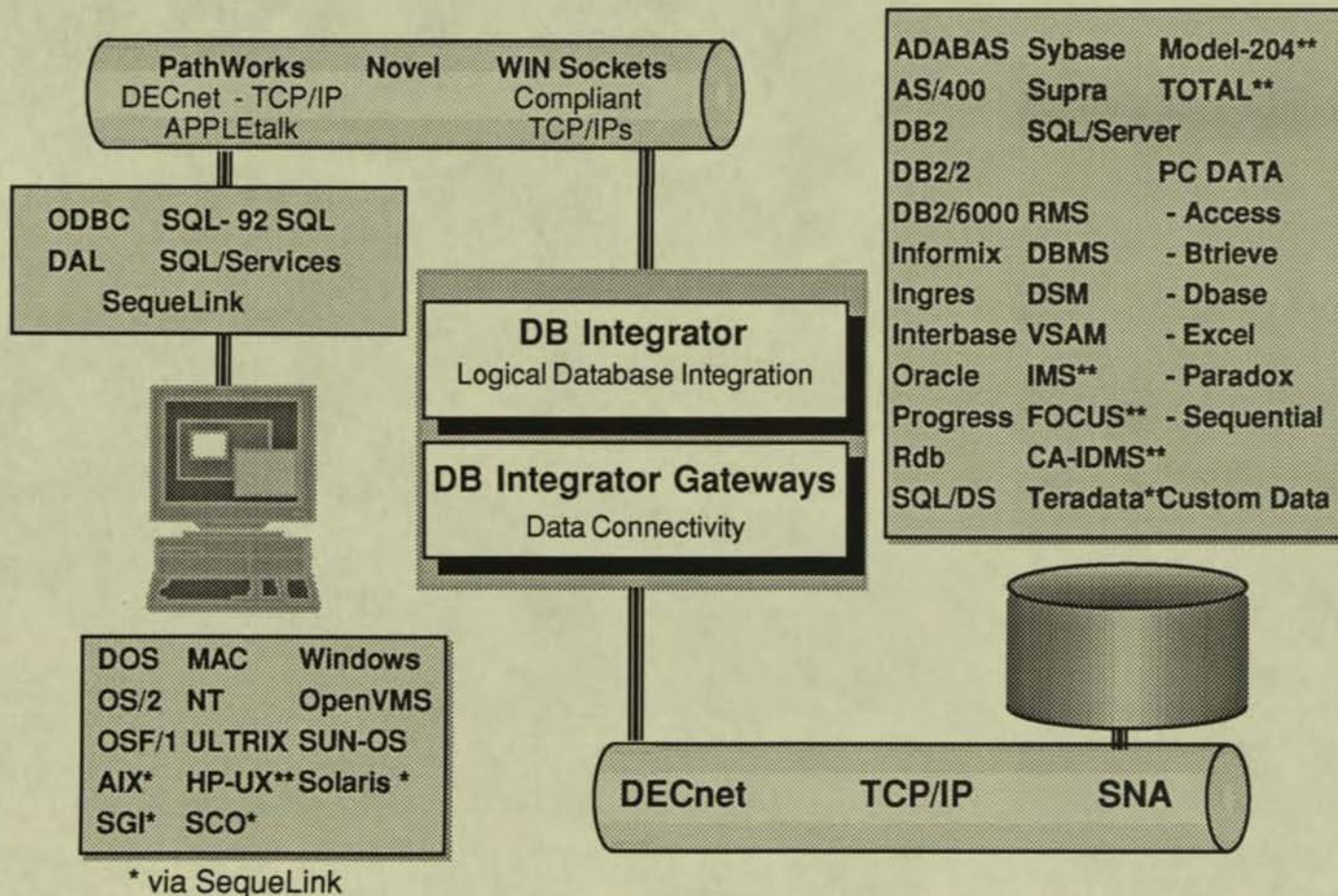
# Data Integration: DBI

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- ❑ Database Integrator (DBI): provides simple, consistent access to distributed heterogeneous data
  
- ❑ Capabilities
  - » Connects to 50+ databases
  - » Provides uniform view across all data
  - » Supports standard interfaces (SQL, ODBC)
  - » Supports data replication
  - » Optimizes queries across multiple databases

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# DBI V3.1



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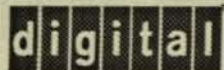
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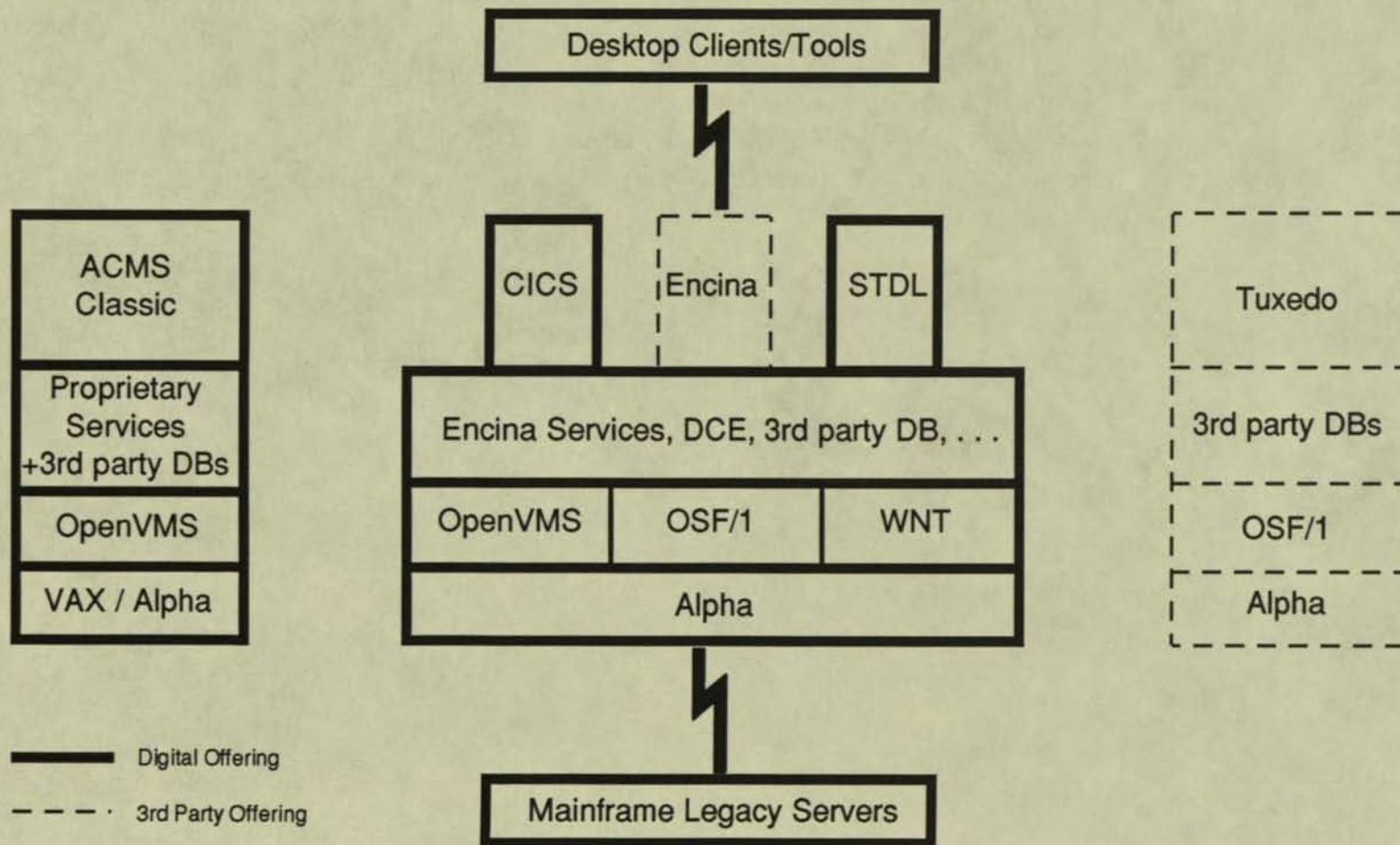
# Transaction Processing

- Common technology base
  - » Encina transactional services kit
- Market-specific APIs
  - » CICS - mainframe downsizing
  - » ACMSxp/STDL - emerging telecomm standard
- Ongoing support of ACMS on OpenVMS





# Transaction Processing *continued*

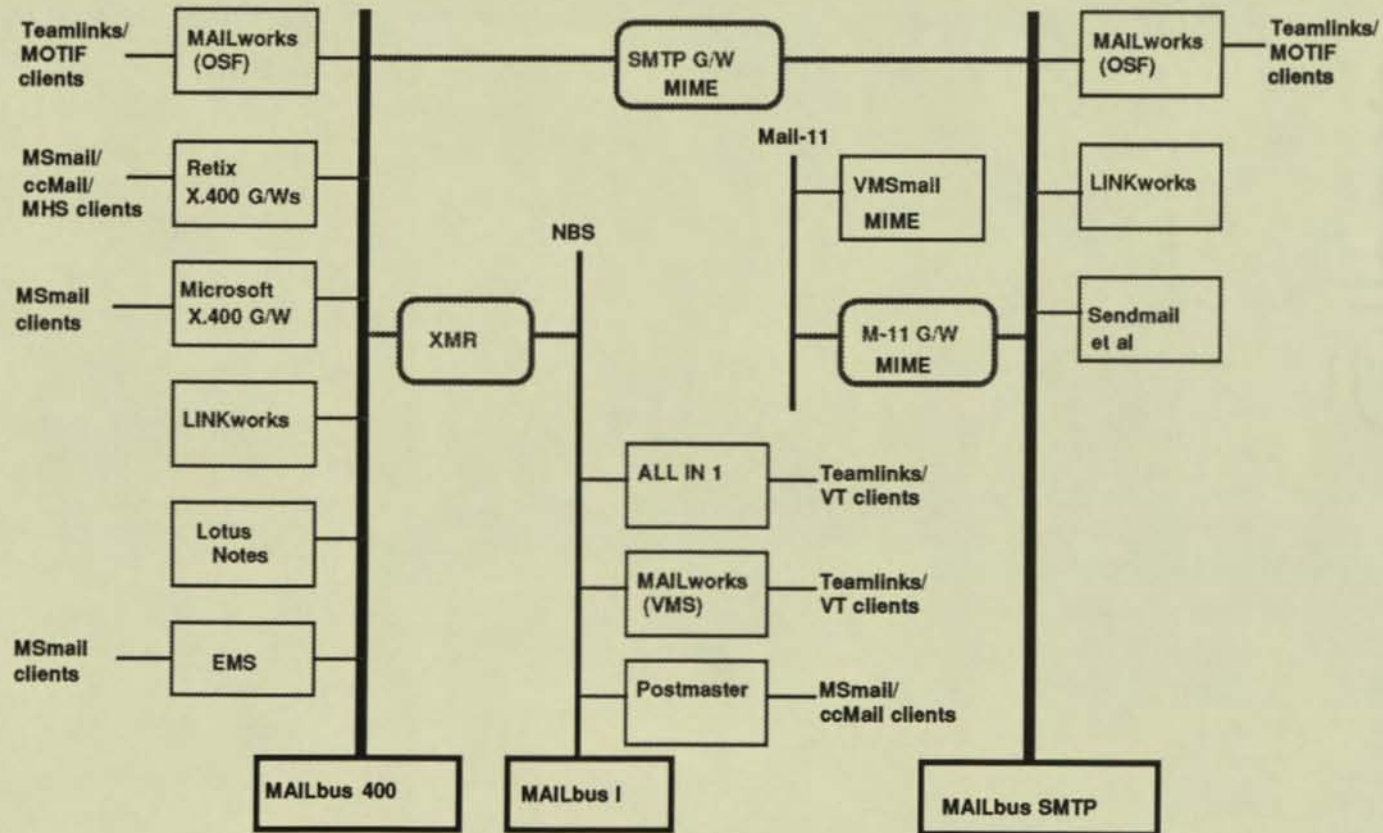


# Messaging Backbones

- ❑ MAILbus: integrates existing mail systems into an easy to use enterprise messaging system
- ❑ Capabilities
  - » Supports X.400 and X.500 standards
  - » Supports SMTP and MIME standards
  - » Supports MAPI and COM/OLE
  - » Integrates popular PC LAN mail systems



# Messaging Backbones





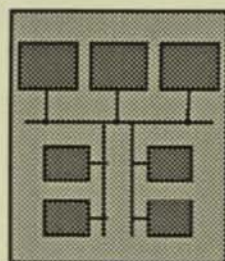
# Management

- ❑ POLYCENTER: provides simple, consistent control of the client/server computing environment
- ❑ Capabilities
  - » Network, system, storage, and software asset management
- ❑ Multiple suppliers
  - » IBM NetView/6000, Legato Archiver, NetStore HSM
  - » Digital's Full Sail, Argo, DECnet manager



# POLYCENTER Suite Offering

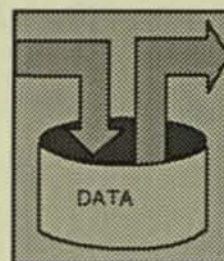
## Eight Customer Problem Segments



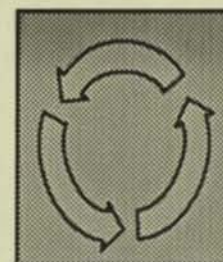
Network Management



Problem/Fault Management



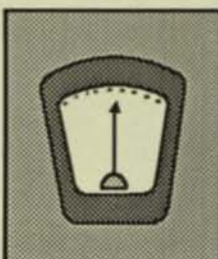
Storage Management



Configuration Management



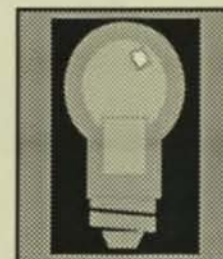
Security Management



Performance/  
Capacity Management



Accounting/  
Billing



Automation/  
Administration

# Computing In The Next Century

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## Information Use

- interaction
- access
- speech
- vision

## Information Management

- traditional
- multimedia
- electronic publishing

Scale: 10 → 1000 mips

Scale: GB → PB

## Information Distribution

- electronic commerce
- mobile networking
- information highways

Scale: Kusers → Musers

# Tomorrow: Universal Connectivity

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- ❑ Compute anything
  - » Manage personal information (agents, filters)
  - » New man-machine interface (speech, vision)
  
- ❑ Connect everywhere
  - » Information highways (Internet)
  - » Electronic publishing, commerce, collaboration
  
- ❑ Store everything
  - » Traditional and multimedia data
  - » Secure, reliable, real-time access

# Partnerships

- ❑ Top industry hardware and software partners
- ❑ Selected based on impact to our customers
- ❑ Strategic relationships:
  - Computer Associates
  - Cray Research
  - IBM
  - Informix
  - Lotus
- ❑ Increased Digital focus, resource, and investment

Microsoft  
Mitsubishi  
Novell  
Oracle  
Sybase





# Summary: Technology to Win

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*Delivering leadership networked computing systems*

- ❑ Computer systems
- ❑ Networks
- ❑ Software
- ❑ Partners
- ❑ Services

# The Punch Line

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*If you take away just one thought from this presentation, then let it be this:*

## **Digital's Product Strategy**

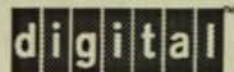
*DIGITAL IS YOUR LEADER IN SOLVING YOUR DATA STORAGE PROBLEMS VIA NETWORKED COMPUTING.*

**Peter F. Conklin**

**Corporate Consulting Engineer**

**Director, OpenVMS Strategy & Alliances**

**[conklin@human.enet.dec.com](mailto:conklin@human.enet.dec.com)**



# The Punch Line

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*If you take away just one thought from this presentation, then let it be this:*

***DIGITAL IS THE LEADER IN SOLVING CUSTOMER PROBLEMS  
VIA NETWORKED COMPUTING.***

*Now, the long version...*

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# Technology Trends

Features size (micron)					
0.5	0.35	0.25	0.18	0.12	0.10
Gates/chip					
300K	800K	2M	5M	10M	20M
DRAM					
16M	64M	256M	1G	4G	16G
SRAM					
4M	16M	64M	256M	1G	4G
Mips					
100	400	1000	2500	5000	10000
Disks					
2GB	8GB	25GB	75GB	200GB	500GB
LAN Bandwidth					
100	1000		10000?		
↑	↑	↑	↑	↑	↑
1992	1995	1998	2001	2004	2007

Source: Semiconductor Industry Association -- Semiconductor Technology Workshops Conclusions March, 1993



# Digital's Capabilities

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## *Digital's core competencies*

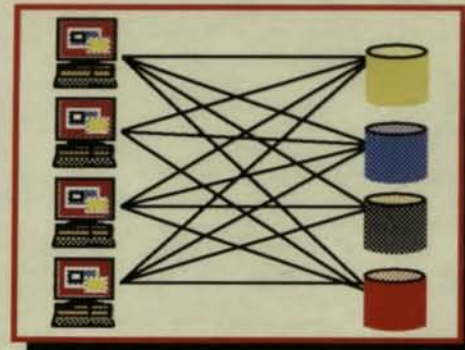
- ❑ High performance silicon
- ❑ Balanced systems
- ❑ Enterprise networks
- ❑ Software for distributed systems

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# Customer Needs



**Easy, Intuitive, Dynamic Access**



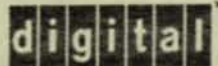
**Reduce Complexity,  
Improve Performance**



**Highly-Available Distributed Data**



**Manage & Monitor  
Distributed Data**



# Digital Platforms

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O/S  
Environments



Computer  
Systems



**Common Commodity Components**



# Hardware

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- ❑ Personal systems with a wide range of processor and graphics performance
- ❑ Server systems with a wide range of processor performance and I/O capacity

*... all based on*

- ❑ Intel and Alpha microprocessors
- ❑ PC standards and cost structure (e.g., PCI I/O)
- ❑ Balanced processing, I/O, graphics, and networking





# Intel Systems

---

- Full line of systems
  - » Desktops
  - » Servers
  - » Notebooks
  
- Leadership capabilities and quality
  - » Local bus graphics, networking, and storage
  - » Energy Star compliant
  - » Plug 'n Play, Windows™ 95, and DMI ready
  - » Three year warranty, world-wide service



# Alpha Systems processors

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- Full line of systems
  - » Workstations
  - » Servers
  - » Clusters
- Leadership performance and quality
  - » Alpha microprocessors
  - » PCI I/O: graphics, storage, networking
  - » Three year warranty, world-wide service



# Alpha Microprocessors

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- 21064 - setting the benchmark
  - » Record-setting performance: 140/200 SPECint/fp
  - » Shipping in volume at 200 MHz
  
- 21064A - today's performance leader
  - » Record-setting performance: 200/293 SPECint/fp
  - » 2X on-chip cache, 275 MHz operation
  
- 21164 - the next performance standard
  - » Record-setting performance: 300/500 SPECint/fp
  - » Four-way instruction issue, 300 MHz operation



# Alpha Workstations

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- AlphaStation 200/400: personal workstations
  - » High performance: 166, 233 (future 266) MHz
  - » ZLXp-E graphics: fast 2D and wireframe 3D
  - » Slimline and minitower packages
- DEC 3000 workstations: leadership performance
  - » Full range: 150, 175, 225, 275 MHz
  - » ZLX-E, M graphics: fast 2D and 3D
  - » Slimline, full profile, and pedestal packages



# AlphaServers

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- AlphaServers
  - » 1000: uni, upgradable, 21064, 21064A
  - » 2000: 1 - 2 SMP, upgradable, 21064, 21064A, 21164
  - » 2100: 1 - 4 SMP, upgradable, 21064, 21064A, 21164
  - » 7000: 1 - 6 SMP, 21064A, upgradable to
  - » 8400: 1 - 12 SMP, 21164
  
- Appropriately scaled I/O bandwidth and memory capacity
  
- Reliable, highly available (ECC, hot swap, RAID, N+1)

# Clusters

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- ❑ Cluster: networked systems used to solve a single problem
- ❑ Technical clusters: aggregated computer power
  - » Network connections (Ethernet up to Gigaswitch)
  - » High performance Fortran, supporting CASE
- ❑ Commercial clusters: scaling performance and availability
  - » Purpose-built connections (Memory Channel, CI)
  - » Operating system support (OpenVMS, OSF/1, NT)
  - » Parallel file and database services

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# UNIX

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- Leadership unified UNIX *now*
  - » Modern, modular design
  - » Full 64-bit implementation
  - » Support of BSD, OSF, System V, COSE standards
  
- Leadership capabilities and quality
  - » SMP
  - » Reliable file system
  - » Clusters



# OpenVMS<sup>NT</sup>

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- ❑ Leadership mission-critical computing
  - » Proven reliability and scalability
  - » SMP, clusters
  - » Runs native and standard Windows applications
- ❑ Open systems portability and interoperability
  - » XPG/4, DCE, TCP/IP, Motif, CORBA
- ❑ Digital added value
  - » > 32b addressing
  - » Log-structured file system





# Windows NT

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- ❑ Desktops to enterprise servers with PC compatibility
  - » Intel and Alpha
  - » Microsoft product
  - » Runs native and standard Windows applications
  - » SMP, SQL server
  
- ❑ Digital added value
  - » Clusters
  - » Intel Windows-32 translator



# Compilers

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- All critical languages on all platforms
  - » C, C++, Fortran, Fortran-90, COBOL, Ada
  - » UNIX, OpenVMS, Windows NT
- Multiple suppliers
  - » Digital GEM technology for C, C++, Fortran
  - » Microfocus COBOL, Rational Ada
- Advanced technology (Digital's GEM compilers)
  - » State-of-the-art scalar optimization
  - » Automatic parallel decomposition (HPF)

- Traditional CASE environments
  - » OpenVMS: DECset
  - » OSF/1: FUSE
  - » Windows NT: Third party interactive development environments
  
- Client/server CASE environments
  - » Forte: OO 4GL for enterprise re-engineering
  - » ParcPlace VisualWorks (SmallTalk)
  - » NeXT OpenStep and PDO (Objective C)
  - » Microsoft Visual Basic and Visual C++

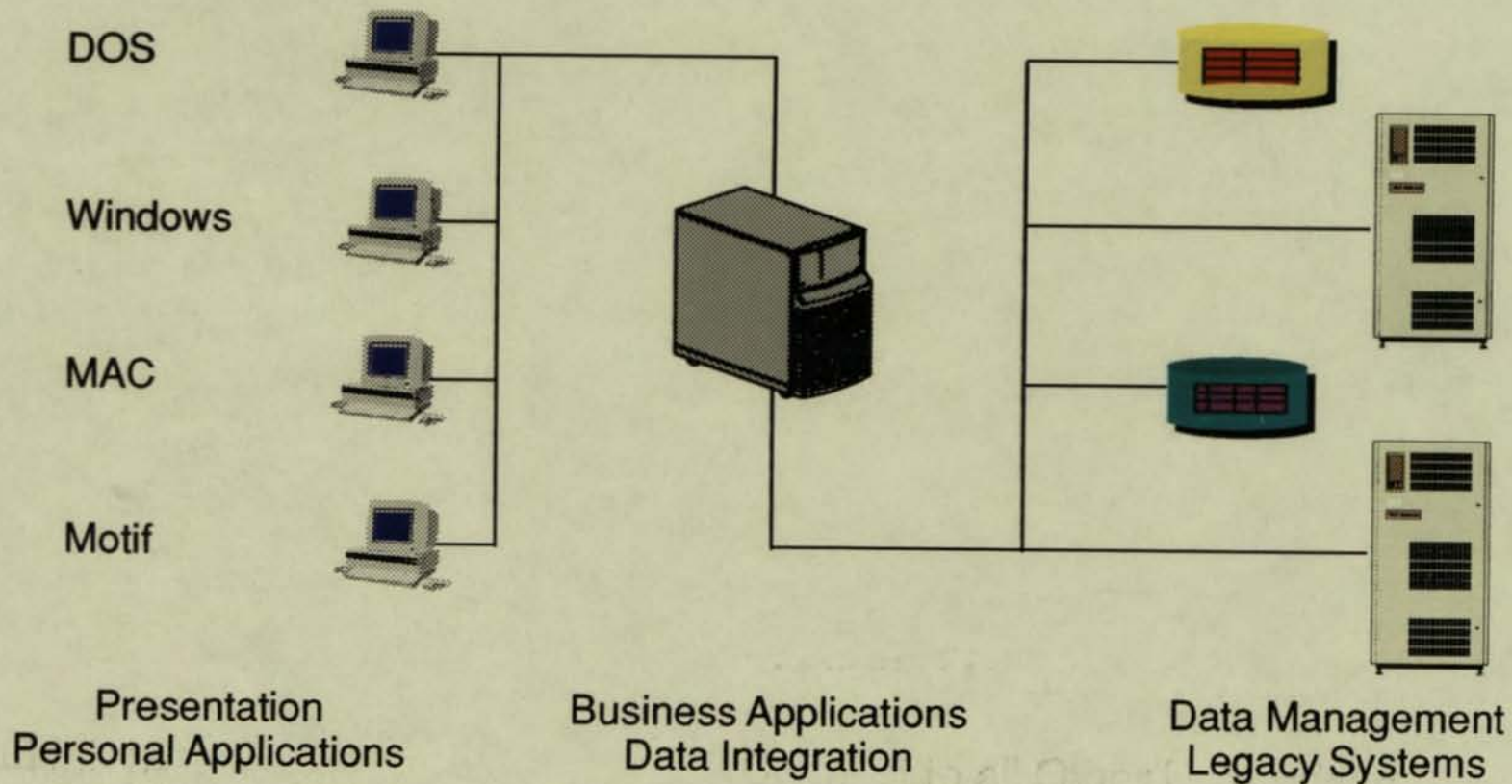


# Network Hardware Strategy

- Faster LAN and WAN technology
  - » ATM: 155 Mb/s → 622 Mb/s → 2.4 Gb/s
- Hubs for price/performance
  - » Ethernet, Token Ring, FDDI, ATM, bridges, routers, etc.
  - » Remote management
- Leadership performance LAN backbone switches
  - » Gigaswitch: 3 Gb/s switched FDDI
  - » ATMswitch: 10 Gb/s switched ATM

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# Client/Server Computing





# Client-Server Software Services

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Network OS

Access Resources from Any Client

Mail

Send Mail to Any User

Directory Services

Find Objects on Any Server Platform

DataBase Integrator

Access Information on Any Database

Transaction Processor

Execute Transactions on Any Server

Systems Management

Manage Client/Server Environment

Enterprise Objects

Provide Advanced Technology to the Enterprise Client/Server Environment

Internet

Connect to all Other Enterprises

AGENDA

DAY I

DEPARTMENT OF SOCIAL WELFARE IRELAND

January 26, 1995

Digital Equipment Corporation  
Maynard, Massachusetts  
Site Conference Room (PK03-1/8C)

- |       |  |  |
|-------|--|--|
| 9:00  | Welcome and Introductions  | Shea O'Driscoll                                  |
| 9:15  | Customer Objectives  | Mark LaJeunesse                                  |
| 9:30  | Digital Organizational Update  | Rod Sutherland                                   |
| 10:00 | Digital Financial Update   | Jeff Clarke                                      |
| 10:30 | Digital's Product Strategy   | Peter Conklin                                    |
| 11:30 | Digital's Software Strategy  | Nancy Strecker                                   |
| 12:30 | Lunch - Site Conference Room   |  |
| 1:30  | Client Server Integration  | Bob Nusbaum                                      |
| 2:30  | Production Systems Integration   | Larry Vifquain<br>Bob Griffin<br>Norman Depledge |
| 3:30  | Management Integration   | Diana Gruppoco                                   |
| 4:30  | WorkGroup Integration  | Dilip Phadke                                     |
| 5:30  | Wrap up and Depart - Limousine Transportation to the Marriott Copley Hotel Boston, Massachusetts |  |

AGENDA

DAY II

DEPARTMENT OF SOCIAL WELFARE IRELAND

January 27, 1995

Digital Equipment Corporation  
Marlborough, Massachusetts  
Discovery Conference Room (MRO3-3/West Wing)

- |       |   |   |
|-------|---|---|
| 7:00  | Limousine Transportation from Copley Marriott Hotel Boston, Massachusetts |   |
| 8:00  | Arrival   |   |
| 8:05  | Business Benefits of the Worldwide WEB and Internet                       | Steve Fink  |
| 9:00  | Worldwide WEB Demonstration   | Bob Vezina  |
| 9:30  | Digital's Network Strategy  | Dick Lush   |
| 10:30 | Break   |   |
| 10:45 | Digital's Alpha Server Strategy   | Cathy Stockwell   |
| 11:45 | Lunch - Junction Conference Room  |   |
| 12:45 | Working Session   | Bob Griffin<br>Norman Depledge<br>Larry Vifquain<br>Bob Nusbaum |
| 4:00  | Conclusion - Wrap up and Depart for Boston                                |   |

From: NEMTS::NEMTS::MRGATE::"MRMTS::USCTRI::Al::LAJEUNESSE.MARK" 25-JAN-1995 1  
4:53:19.18  
To: HUMAN::CONKLIN  
CC:  
Subj: Final Agenda - Department of Welfare - Ireland - Jan 26/27 1

From: NAME: Mark LaJeunesse @MRO  
FUNC: Worldwide Executive Briefings <LAJEUNESSE.MARK AT Al AT USCTRI A  
TEL: 508-467-5666

T MRO>  
To: See Below  
CC: See Below

Attached please find the final agenda for the Department of Social Welfare  
Ireland Executive Briefing scheduled for January 26 & 27, 1995.

\*\*\*\* Please note the location of the January 26 session has moved to MAYNARD to  
the PK03 Site Conference Room (PK03-1/C8). The January 27 session will be  
held in MRO3-3/West Wing Discovery Conference Room.

The attending customers for this meeting will be:

Ms. Joan Connolly, Director of Technology  
Mr. Niall Barry, Information Systems Architect  
Ms. Nadine Mangan, IT Facilities Manager (Principal Officer)

This group will be escorted by their account manager, Shea O'Driscoll and Gerry  
McQuaid, Business Development Manager.

Please review the attached and contact me if you have any questions in regard to  
the agenda or your involvement with this customer meeting.

I look forward to seeing each of you over the next two days.

Thank you and regards,

Mark

DEPARTMENT OF SOCIAL WELFARE IRELAND

JANUARY 26 & 27, 1995



Department of Social Welfare Ireland Participants

Joan Connolly  
Director of Technology

Niall Barry  
Information Systems Architect

Nadine Mangan  
IT Facilities Manager (Principal Officer)

Digital Equipment Corporation Participants

Jeff Clarke  
Manager, Corporate Financial Planning and Analysis  
Corporate Finance

Peter Conklin  
Technical Director  
Layered Products

Norman Depledge  
Manager, TP Consulting  
TP Systems Group

Steve Fink  
International Business Development Manager  
Internet Business Group

Bob Griffin  
Applied Information Technology

Diana Gruposso  
Project Consultant  
Networked Systems Management Technical Support

Mike King  
Senior Analyst  
Corporate Finance

Mark LaJeunesse  
Manager, European/South Pacific Executive Briefings  
Worldwide Executive Briefings Group

Dick Lush  
Networks Marketing Manager  
Networks Business Unit

Gerry McQuaid  
Business Development Manager  
(Telecommunications and Social Security)

Digital Equipment Corporation Participants Continued

Bob Nusbaum  
Strategic Planning Manager  
Network Integration Software

Shea O'Driscoll  
Account Manager

Cathy Stockwell  
Systems Consultant  
Business and Technology Consulting

Nancy Strecker  
Vice President  
Software Product Marketing

Rod Sutherland  
Technology Consultant  
Business and Technology Consulting

Bob Vezina  
Manager  
Executive Briefing Demonstration Center

Larry Vifquain  
Manager, Product Management TP/FORMS  
OpenVMS Layered Software Group

INTEROFFICE MEMORANDUM

Date: 17-Jan-1995 04:01pm EST  
From: Shea O'Driscoll  
\*Shea O'Driscoll

\* (ODRISCOLL.SHEA@A1@SIOG@DBO)  
Dept:  
Tel No: 827-2404

TO: See Below

Subject: Corporate Visit Questionnaire

Marc,

Please find attached a completed questionnaire for the Department of Social Welfare (DSW) corporate visit at the end of January 1995.

Essentially we are asking for 5 sessions:-

- o Digital's Overall Strategy/Vision
- o Digital's leadership capabilities
- o Digital's Software Strategy
- o Digital's Networking Strategy
- o Workshop

Please have a read and see what you think in terms of speakers.

I know we currently have the 27th booked with Nancy Strecker. One day may not be enough - we may need to run a 2 day affair with a workshop emphasis on the 2nd day. This workshop would translate the Corporate strategy into one which DSW could take away and work with to fit their particular needs.

In this regard, we will be having TP engineering visiting DSW here in Dublin on the 16th of January to outline TP plans and strategies. I've copied Norman Depledge on this mail. I suggest we have these guys involved in the Corporate visit later in the month, in that they will have heard directly from DSW in terms of immediate queries/reservations etc.

This idea needs some exploring. Please consider. At a minimum it would mean we need to book the 26th as well. I will talk to you early next week to progress.

Marc, I was involved in a corporate visit by the bank of Ireland some years ago - it went very well. I found it very useful to brief each speaker on the telephone - I'd like to do the same here - is that OK?

Best Regards,

Shea.

Distribution:

TO: LAJEUNESSE

( lajeunesse@AM@USCTRI@MRO )

CC: -->

CC: Gerry McQuaid

( "mike dube"@mro )

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( HARVEY.PAUL@A1@SIOG@DBO )

CC: -->

( \*norman depledge\*@tay )

REQUEST FOR  
MEETING WITH:

Corporate Visit/Briefing  
Department of Social Welfare Ireland

REQUESTED  
DATE(S):

January the 26th and 27th, 1995

LOCATION:

Corporate Visit Centre - Boston, Mass

REQUESTOR:

Title: Shea O'Driscoll@DBO  
Location: Dublin, Ireland - @DBO  
DTN: 827 Ext 2404  
OUTSIDE #: 353-1-8385433  
Home #: 353-1-8429169  
Fax: 352-1-8384239  
E-mail: Shea O'Driscoll@DBO  
Badge #: 191461  
Cost Center #: 1TA

DIVISION/BU:

ABU - Sales

Potential DIGITAL ESCORTS:

Gerry McQuaid  
Shea O'Driscoll  
Cliff Murphy  
Paul Harvey

The exact Digital escort/escorts will be firmed up closer to the visit. The visit coincides with a visit of Digital and the Department of Social Welfare to the World Bank to promote our partnership in selling Social Security software worldwide.

BRIEFING FOR MEETING WITH (COMPANY NAME)

CUSTOMER

- Account Name Department of Social Welfare

- Business Address

Goldsmith House  
Pearse Street  
Dublin 2  
Ireland

- Which Industry would you categorize this customer?

Government

- Brief description of business and products

The Department of Social Welfare is Digital's largest customer in Ireland. They are almost an exclusive Digital's user with only a handful of PCs, some storage and network products and Macintoshes from other suppliers. The Department is a Government Department with an annual budget of \$6 Billion (almost one third of the Government's total spend). It administers statutory income maintenance functions ranging from unemployment and sickness benefits to survivor benefits. Each week it generates a total of 800,000 payment transactions which must be managed. Its services are administered through the following schemes:

Sickness Benefits  
Pensions  
Unemployment  
Dental and Optical Treatment Benefits  
Childrens' Allowances  
Free travel, Free fuel, electricity etc  
Family Income Supplement

The Department's services have always been delivered in three ways namely: from its central office in Dublin, through 200 of its own offices and through a number of other agencies spread throughout the country.

Its own offices, consist mainly of 120 unemployment exchanges administering the Unemployment Benefit/Assistance scheme. Other agencies include the Post Offices which administer Pensions and Child Benefit Payments.

The Department is currently embarking on probably the most far-reaching changes to its business strategy since its current IT strategy was adopted. It is planning to decentralise the delivery of ALL its services to its 200 "Local" offices and at the same time has to implement a Government decision to tax benefit payments. The major outcome will be that clients will be able to transact all of their business with the Department across all schemes at one location instead of dealing with different centres for each scheme as at present. In terms of its IT strategy, these changes involve the rewriting of its short term schemes applications, the first phase of which is nearing completion. The plan will certainly entail the distribution of

processing facilities to local offices using PCs and/or Workstations, the use of expert systems to develop user friendly rule based systems, the use of distributed processing/databases and the use of magnetic cards to establish identification and facilitate more efficient payment methods such as automated cash or EFT to clients. The IT program will be a long term program stretching over the next five years.

COMPANY'S BUSINESS: Industry, line of business, current climate and major business issues.

Industry - Social security  
Lines of Business

Sickness Benefits  
Pensions  
Unemployment  
Dental and Optical Treatment Benefits  
Childrens' Allowances  
Free travel, Free fuel, electricity etc  
Family Income Supplement

Major Business Issues

To create a one stop shop environment where clients/claimants can come to receive benefit and/or be guided on entitlements.

The Department is heavily dependant on IT. In order to move to the above state they need to develop from centralised processing to centralised processing/database and servers in all branches.

This will be a major cultural change for them.

COMPANY SIZE: 4500 people  
It is a spending authority on behalf of the Government - spend is in the order of \$6 Billion or 33% of Govt spending.

IT spend is IR 9.5 Million.

COMPANY'S  
RELATIONSHIP  
TO DIGITAL:

Customer, prospect, partner or prospective partner. Briefly discuss the products/services the company has bought for Digital.

The customer is both a major customer and a key partner in the marketing of Social security Solutions worldwide within Digital.

As a customer, they have aligned themselves entirely to the DECTp product set and are the 5th largest RDB customer in the world. They have always had, up until recently, close connections with the engineering groups and senior corporate marketers of TP products.

COMPANY ATTENDEES: Names and Titles. Attach bios of key Company Attendees.

Niall Barry Info Systems Architect  
Joan Connolly Director - IT Development  
Oliver Ryan Director - IT  
Eddie Sullivan Director General

DIGITAL ATTENDEES: As above

COMPANY'S

VIEW ON DIGITAL: Describe the historic and current tone of the relationship and why.

Background ....

The Department is Digital's largest client in Ireland with an annual spend with Digital of approx \$7-8 million and for years has been a key corporate account and reference site. In product terms the Department is 5th largest RDB site in the world and with almost 2500 ACMS users one of the largest TP user.

The Department is about to implement new business policies (discussed below) which will significantly affect its IT strategy. Senior management want to have a clear picture of Digital's future Architectures/Product plans to enable the Department to put the appropriate IT strategy in place.

This information is also critical to the Department because its future IT plans must comply with an EU/Government directive to move to "open systems" and this is a prerequisite to the purchase of new software products as well as continued use of its current products.

The recent sale of our products, particularly RDB and CDD+ (both of which are critical products for the Department) to Oracle has raised serious concerns in the Department on a number of counts, the most fundamental being Digital's plans for other products on which the Department's business depends. Products identified by the Department as most critical, include OpenVMS, ACMS, ALL-IN-1, DECforms, Teamlinks, ALL-IN-1, Pathworks, EDI.

Accordingly we have been formally requested by the Department's senior management to make a presentation on Digital's future products strategy by the end of January. This will need to cover overall plans for retaining/selling products as well as specific plans for individual products, particularly in relation to migrating them to open systems and to running them on other hardware vendor platforms. The Department has also requested that information provided be endorsed by the corporation's senior management. This is the basis for the corporate visit request.

How the customer currently using DEC products .....

The Department runs all of its applications on Vax machines located in three central locations connected by an Ethernet network on fibre-optics cable.

Main Installations are:

Machines	Applications
----------	--------------

Goldsmith House 6520 x2,	Cluster 1 Pensions, Child Benefits Free Schemes, Cheques Rec Treatment Benefits Family Income Suppl.
-----------------------------	--

Office Cluster 7610 x2	ALL-IN-1 X400 comms
---------------------------	------------------------

Plus M/VAXes etc.

Store Street 9410, 7630X3,	2 Clusters Disability Benefits Unemployment Ben.
-------------------------------	--

7620x2, 7610

Central Records  
Infosys (cross schemes  
info access system  
Contingency systems

M/VAX 4000x3

Development Systems

plus M/VAXes etc.

Gandon House Microvax 3100x2 Countrywide network hub  
Networks mgt Misc applictns

2500 vdux (on Ethernet and countrywide "Infonet" Wide Area Network)

Software

VMS ACMS DECforms RDB RMS CDD+ ALL-IN-1

- How the customer currently views Digital .....

Digital has successfully cultivated and maintained a special partnership relationship with the Department which goes beyond the normal supplier/customer relationship. This ensured that it was involved in consultation on a regular basis at a corporate management level and that it was kept informed on Digital's future product developments and contributed through customer forums etc. to the development of Digital's product strategy. However in the past year this view has changed. The Department no longer feel that it has the same level of influence or high level contact with Digital senior management that it once enjoyed.

In addition, they feel they are about to embark on a major changearound - ie the move to client-server and doubt whether Digital is the appropriate partner - as it has been in the last few years. This is amplified by the fact that the Depart has gone to tender to the traditional big 6 consultancy firms to complete an IS review, define a new architecture and a way forward to get to this new architecture - this is potentially very dangerous for Digital.

IT SPENDING: What is the \$ amount and percentage this customer spends on IT with Digital.

Digital takes the lions share of the customer's spend and is considered the most strategic supplier. This is under close scrutiny, however, prompted by our sale of sw products. As the account move from Centralised processing to local offices we digital need to convince them of our future Sw Strategy and desktop and networking capability.

PAST AND FUTURE REVENUE:

NOR for each of the past 3 years and projected NOR for this year and next.

Average \$6million
1995 \$5-6million
1996 depends heavily on sw strategy

Historically, the spend with Digital has been 40-50% software and we have been the strategic sw supplier. Should the department look elsewhere for sw - then the spending trend is affected by at least

CURRENT OPPORTUNITY: Briefly describe what the current and future opportunities are for Digital in this account.

Size of opportunity the meeting will leverage.

Local Offices 5Milion

this would be hw, sw, for 200+ local offices

Network Implementation 2.5Milion

this would be a modern, new, network infrastructure to support voice and data to these offices.

DIGITAL'S COMPETITION:

Briefly describe Digital's competitive situation in this account.

Today, we have maintained a major hold on the account. SW Strategy is changing this. Potential competitors for the local offices are Microsoft, ICL, IBM.

OVERALL MEETING

OBJECTIVE: What are the specific goals of the overall meeting? From the customer's or partner's perspective? From Digital's?

Digital's:-

To position Digital as the supplier of choice for the 200+ local office infrastructure (both hw and sw) and as the supplier of choice for networks implementation.

Department's:-

To appreciate Digital's vision, its current status, its sw strategy and its view of where it has leadership.

Overall:-

To convince the department, we have a clear sw strategy which supports them and that we have leadership in many areas and that we are the right choice for networks implementation.

Against this background, Digital Ireland sees an agenda, along these lines:-

1)

Digital's overall Strategy/Vision

- Should include financials

- Business Units

- Changes of focus

2)

Key Areas of Leadership

- could be

- Alpha

- OSF, NT (and Microsoft relationship)

- Storage

- Middleware

- PC Integration

- Teamlinks/pathworks

3)

Software Strategy

However, Corporate may want to change these - they are only a selection we thought might be relevant.

- needs to take into account where DSM is coming from, indicate the future and outline a ROADMAP to get there.

A 3 phase presentation:-

1) Overall SW Strategy - include plans for DSM's existing products.

11) Outline Digital's view of the future - Client/Server and middleware.

111) Discuss how and in what timeframe DSM might move from 1) to 11).

4)

Digital's Networking Strategy

- Emphasize future technologies

- ATM

- Hubs, design experience

- Large reference sites

BRIEFING FOR (COMPANY NAME)

\*\*\*\* Complete the following if your Executive Briefing requires \*\*\*\*  
presentations by Corporate Subject Matter Experts.

- TOPIC DETAILS: 1) Digital's Overall Strategy/Vision
- Should include Financials
  - Business Units
  - Changes of focus
  - Sw / Hw Strategies
  - Key partners

This presentation should be from a very senior person.

IMPORTANT:

For EACH topic, please answer ALL of the following questions. This section is CRITICAL in selecting the appropriate resource and level of discussion for your Executive Briefing. PLEASE COMPLETE IN DETAIL.

TOPIC:

Specific products/services to be discussed.

<> Overall top level strategy Presentation - where is Digital going and where does it see itself right now.

Is this topic related to near term business or information only?

<> It sets the scene so the customer has some confidence in Digital. Without this confidence, all opportunities are threatened.

Current products in use (H/W, S/W, applications, operating systems):

<> Software - ACMS, RDB, COBOL, DECset, ALL-IN-1, ACMS desktop, Teamlinks, Pathworks  
Hardware - 7000, 6000, MicroVAXes, and 9000 series.

Issues, concerns, anticipated questions:

<> Future Sw direction, Marketing capability, Commitment to loyal customers, financial status.

Customer knowledge and previous presentations delivered on this topic:

<> Customer watching closely but confused about Digital. A close watcher of gartner - also getting mixed message on Digital from them.

Specific competition for this product area?

<> Key is confidence in Digital - without this competitors are ICL, Microsoft, HP and IBM.

What are the goals for the session and key points you want your customer to walk away with?

- <> Customer should see that Digital is viable
- Financially
  - From a strategy point of view
  - Know where our emphasis is in terms of investment money
  -

BRIEFING FOR (COMPANY NAME)

\*\*\*\* Complete the following if your Executive Briefing requires \*\*\*\*  
presentations by Corporate Subject Matter Experts.

- TOPIC DETAILS:  
2) Key Areas of Digital leadership

- Could be
- Alpha
- OSF, NT (and microsoft relationship)
- Storage
- Middleware
- PC integration
- Teamlinks/pathworks

However, Corporate may want to change these - they are only a selection we thought might be relevant.

IMPORTANT:

For EACH topic, please answer ALL of the following questions. This section is CRITICAL in selecting the appropriate resource and level of discussion for your Executive Briefing. PLEASE COMPLETE IN DETAIL.

TOPIC:

Specific products/services to be discussed.

<> The above list - we should not try to do all things to all men. This presentation should emphasize where we have leadership capability or where we think we have leadership potential.

Is this topic related to near term business or information only?

<> Local Office near term business and networking infrastructure.

Current products in use (H/W, S/W, applications, operating systems):

<> VAXes, DECTp products, StorageWorks, mail, All-in-1, EDI, no comms products.

Issues, concerns, anticipated questions:

<> Storage - MTI and CMD more aggressive/competitive.  
Software - No Strategy  
Relationships - Not clear how solid

Customer knowledge and previous presentations delivered on this topic:

<> Customer very aware of Digital's product set. Not sure where \*we\* think we have leadership right now!

Specific competition for this product area?

<> Storage niche vendors,  
Communications suppliers,  
Sw suppliers - Informix, Microsoft, SYBASE

What are the goals for the session and key points you want your customer to walk away with?

<> Goal is to show where Digital has leadership and particularly where in terms of

- Alpha
- Storage
- Desktop
- PC integration
- Sw (Client-Server Middleware)
- networking products

BRIEFING FOR (COMPANY NAME)

\*\*\*\* Complete the following if your Executive Briefing requires \*\*\*\*  
presentations by Corporate Subject Matter Experts.

TOPIC DETAILS:

3) Software Strategy

- needs to take into account where DSW is coming from, indicate the future and outline a ROADMAP to get there.

A 3 phase presentation:-

- i) Overall Sw Strategy - include plans for DSW's existing products.
- ii) Outline Digital's view of the future - Client/Server and middleware.
- iii) Discuss how and in what timeframe DSW might move from i) to ii).

IMPORTANT:

For EACH topic, please answer ALL of the following questions. This section is CRITICAL in selecting the appropriate resource and level of discussion for your Executive Briefing. PLEASE COMPLETE IN DETAIL.

TOPIC:

Specific products/services to be discussed.

<> All Digital's key sw products. Emphasise how a major Digital customer like DSW, will have their investment protected.

Is this topic related to near term business or information only?

<> All business of the future depends on us articulating a good strategy here.

Current products in use (H/W, S/W, applications, operating systems):

<> VMS, Multiple VAXes, RDB, ACMS, CDD, COBOL, ALL-IN-1, teamlinks, pathworks etc

Issues, concerns, anticipated questions:

<> Do we have a strategy?  
Will we sell ACMS?  
What about ALL-IN-1?  
Won't Pathworks go away when MicroSoft develop better/cheaper products  
What about DECforms  
What's so good about us in Client-Server

Where do we see ourselves as leaders in sw?

If we do articulate a good strategy - be prepared for the question - how do we recommend the Dept get from from they are with DECTp products to that which has been outlined!!!

Customer knowledge and previous presentations delivered on this topic:

<> Customer is very knowledgeable on Digital's products. Confused on our strategy, however.

Specific competition for this product area?

<> Those with clear client-server strategies whose key emphasis/commitment is software.

What are the goals for the session and key points you want your customer to walk away with?

<> Customer to have a clear view on Digital's Sw Strategy  
Customer to be confident that ACMS is OK  
Customer to feel Digital is credible in Client-Server  
Customer to feel Digital has advantage in Middleware

BRIEFING FOR (COMPANY NAME)

\*\*\*\* Complete the following if your Executive Briefing requires \*\*\*\*  
presentations by Corporate Subject Matter Experts.

TOPIC DETAILS:

- 4) Digital's Networking Strategy
- Emphasis future technologies
  - ATM
  - Hubs, design experience
  - large reference sites

IMPORTANT:

For EACH topic, please answer ALL of the following questions. This section is CRITICAL in selecting the appropriate resource and level



of discussion for your Executive Briefing. PLEASE COMPLETE IN  
DETAIL.

TOPIC:

Specific products/services to be discussed.

<> ATM, Hubs, Routers/Bridges etc. Pathworks, Netview, DECsite  
organistaion, competitive analysis.

Is this topic related to near term business or information only?

<> Very key to Digital showing the Dept we could be the supplier of  
choice for the network implementation planned for local offices in  
the near future - 12 months. We have received a contract in  
conjunction with the local PTT to design a combined voice and data  
network for the Dept. Is is never too early to pitch for the  
network implementation stuff.

Current products in use (H/W, S/W, applications, operating systems):

<> Terminal servers from Digital, some routers, Vitalink bridges etc.  
The majority of products are supplied by Cara, a local network  
distributor, who have distributorships for Timeplex, most terminal  
servers, 3COM, Wellfleet etc

Digital has traditionally not been key players here. We have not  
had the voice credibility or modem maintenance capability.

As we move into the next phase, where they will need bandwidth on  
demand and very high speed capability, with multiple branches that  
will need structural cabling and be managed from central, Digital  
is again well positioned from a leadership product point of view.

Issues, concerns, anticipated questions:

<> We have always been more expensive than others .. have we really  
gotten into the commodity networking space and can we hack it  
there!!!

Customer knowledge and previous presentations delivered on this topic:

<> Not uptodate with our networking capability

Specific competition for this product area?

<> PTTs, Siemens Nixdorf, Motorola, Timeplex, AT&T

What are the goals for the session and key points you want your  
customer to walk away with?

<> That Digital has key leadership capability in the networks space, is  
well positioned to design and to implement a combined voice and  
data network for DSX, and has the application tools to help manage  
this network. <>

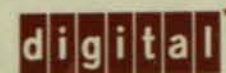
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## ObjectBroker Product Strategy

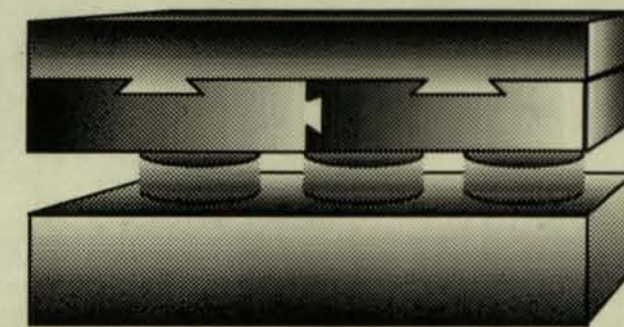
Connect Microsoft desktop applications to enterprise server applications & resources.

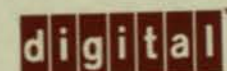
- ❑ Common object-based application interface (COM) between Microsoft-based desktops and Digital systems.
- ❑ Access to enterprise CORBA-based server objects from COM-based desktop and servers.
- ❑ Integration (encapsulation) of new and legacy applications.
- ❑ Simplified access to enterprise-quality infrastructure resources.



## Why Distributed Objects ?

- ❑ Best modeling method
- ❑ Provides consistent view for users
- ❑ Allows rapid application development (RAD)
- ❑ Applications can be written ...
- ❑ ... and *then* distributed
- ❑ Distribution can change as business changes





## Forte is ...

---

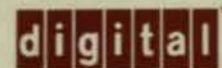
The **best** application development, deployment, and execution environment for three tier and mission critical distributed client-server applications



## Why Forte?

---

- ❑ True portability of applications - solves customer's multi-vendor problem
- ❑ Hides complex technology - simplifies customer's development cycle
- ❑ Flexible distribution Strategies - allows freedom to alter topologies, incrementally change technology
- ❑ Integrates heterogeneous resources - works with what the customer has today and will have tomorrow (DB's, info feeds, other GUI applications, etc.)
- ❑ Single education process - reduces total cost of training, provides more flexible work force
- ❑ Secure, reliable access to corporate assets - allows downsizing
- ❑ Manages deployment and execution - minimizes C/S complexity



## Why Forte?

---

Forte allows the customers to build applications that:

- » run on and across all of Digital's platforms (and others)
- » integrate **CORBA/COM, DCE, DMQ, Pathworks, DECNET, Objectflow, ACMS** and Encina
- » and work with **Linkworks**, legacy applications, and popular third party products
- » in a modern OO GUI based 3 tier environment

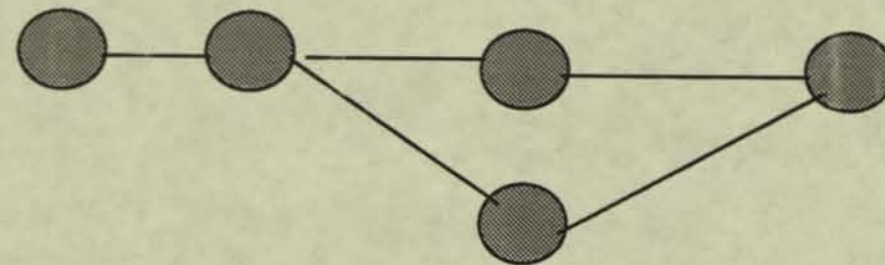


## Objectflow is ...

---

*The open process management system for heterogeneous client/server environments*

*Objectflow binds many independent customer applications into a single manageable business process*





## Why Forte?

---

**Forte allows the customers to build applications that:**

- » **run on and across all of Digital's platforms (and others)**
- » **integrate CORBA/COM, DCE, DMQ, Pathworks, DECNET, Objectflow, ACMS and Encina**
- » **and work with Linkworks, legacy applications, and popular third party products**
- » **in a modern OO GUI based 3 tier environment**

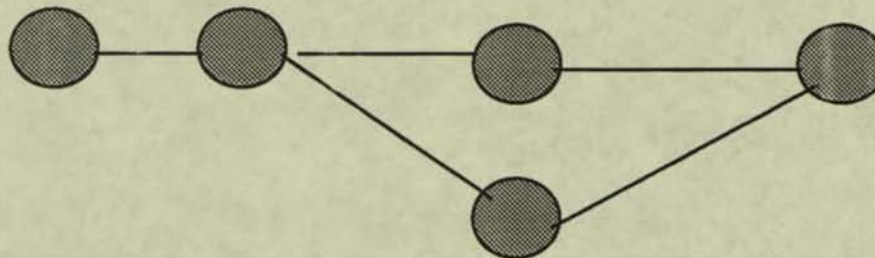
**digital**

## **Objectflow is ...**

---

***The open process management system for heterogeneous client/server environments***

***Objectflow binds many independent customer applications into a single manageable business process***





## **Why Objectflow?**

---

- ❑ **True integration of applications into business processes**
  - » gets rid of manual processes
- ❑ **Clean separation of process from application and organization**
  - » allows easy process change, application modification, and organization redesign
- ❑ **Truly open architecture**
  - » not limited to one vendor's mail, image, or document management system
- ❑ **Integration of heterogeneous clients and servers**
  - » works in the real world
- ❑ **Part of Digital's CORBA/COM family**
  - » helps integrate almost anything



## **ObjectFlow Features**

---

- ❑ **Modular Process Mgmt & Workflow**
  - » open interfaces
  - » works with any application
  - » CORBA interfaces
- ❑ **Integrates into customer's existing or new environment**
  - » platforms, databases, networks, etc.
- ❑ **Separates process control from applications, data, organizations, policies**
  - » allows orthogonal change to each
- ❑ **Dynamic Flows**
  - » modify workflows on-the-fly (via API)
  - » rolling change propagation





# ObjectFlow Features

---

- ❑ **Powerful graphical tools**
  - » designer
  - » flow manager
- ❑ **Journals each workflow step for Rollback/Recovery and Audit**
  - » Allows SQL access to journal
- ❑ **Direct translation from BPR Analysis Tools**
  - » DECMModel
  - » PTech
  - » Paradigm Plus

**digital**

# **Managing Technology Change**

The information contained in this presentation is proprietary to Digital and is offered in confidence, subject to the terms and conditions of a Non-Disclosure Agreement.

**Peter F. Conklin**  
**Corporate Consulting Engineer**  
**Director, OpenVMS Strategy**

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Maynard, MA 01754-2195  
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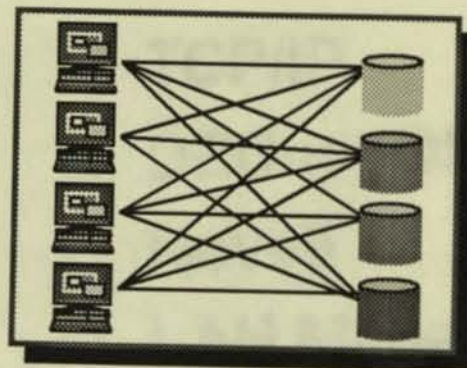
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# Typical Enterprise Customer Business Goals



**Easy, Intuitive, Dynamic Access**



**Reduce Complexity,  
Improve Performance**



**Highly-Available Distributed Data**



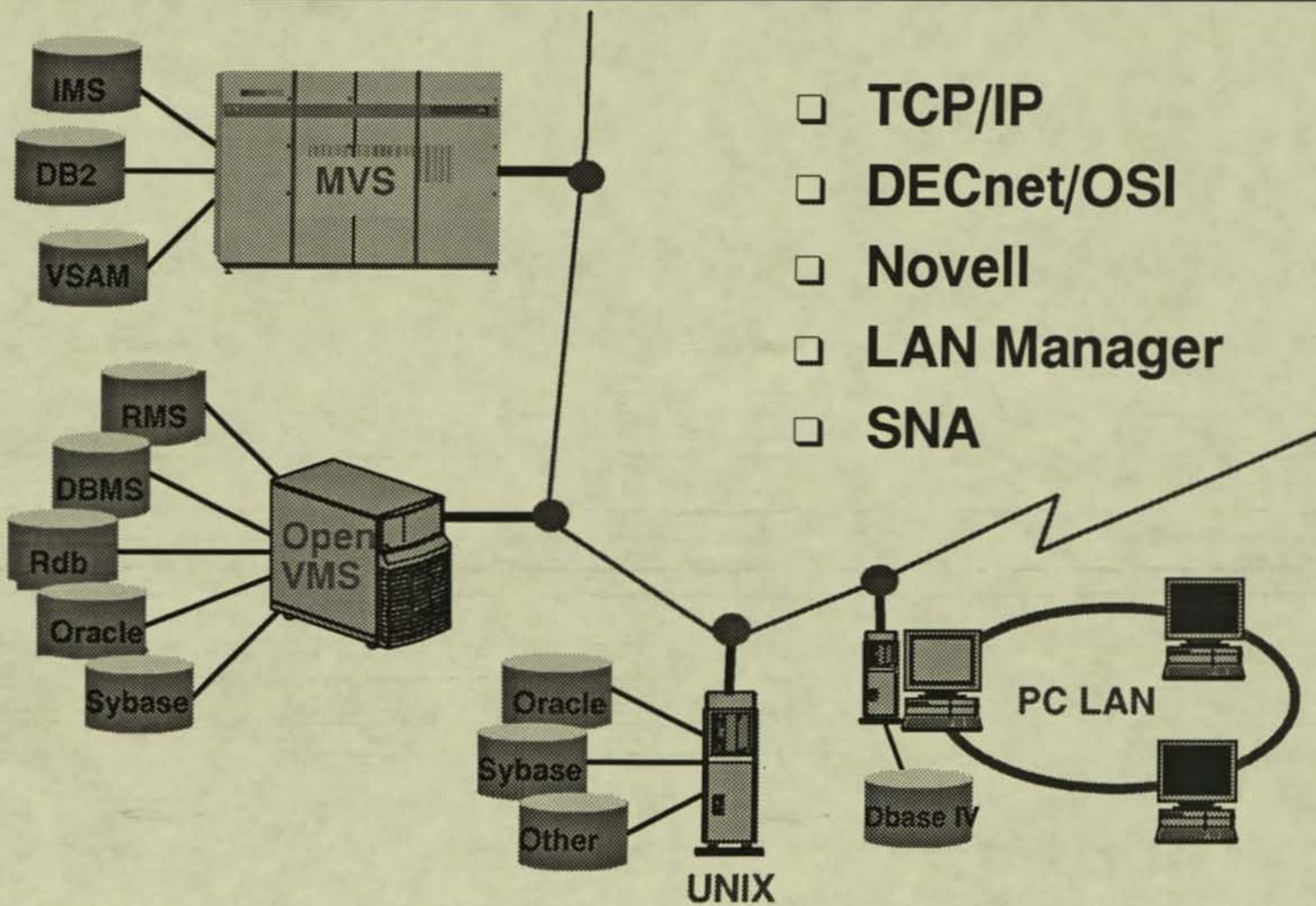
**Manage & Monitor  
Distributed Data**

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# Typical Enterprise Environments

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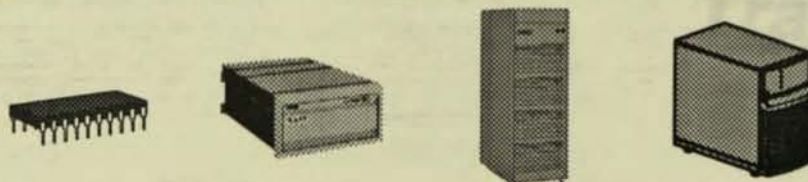
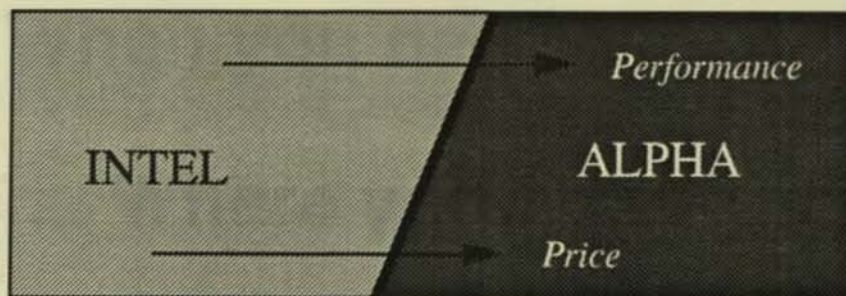
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# Digital Platforms

O/S  
Environments



Computer  
Systems



## Common Commodity Components



# **Client-Server Software Vision**

---

**Accessing the information you need**

**... What you need**

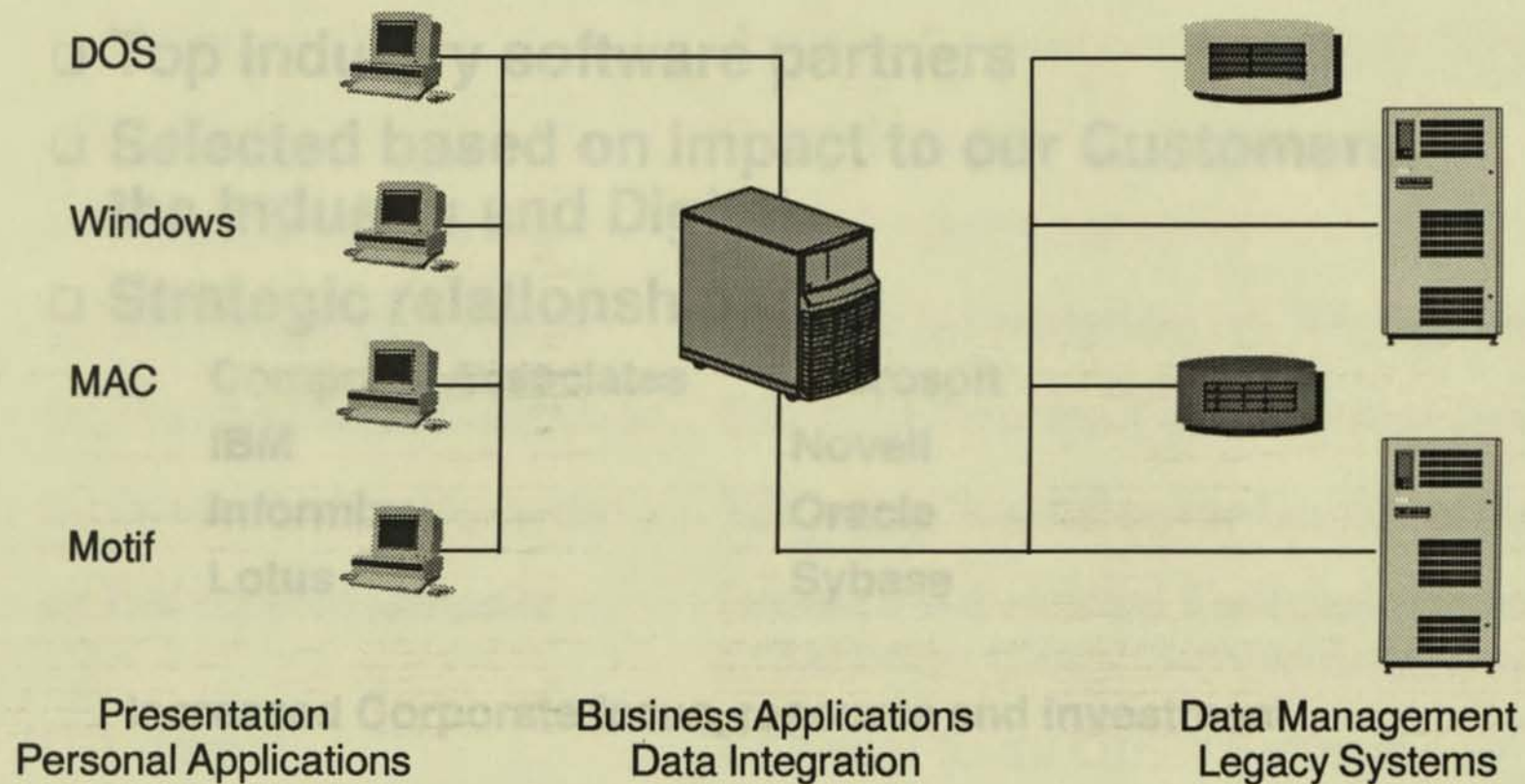
**... When you need it**

**... Where you want it**

**Transparently**  
**and Securely**

digital

# Client/Server Computing







# **Strategic Alliances**

---

- ❑ **Top industry software partners**
- ❑ **Selected based on impact to our Customers, the Industry and Digital**
- ❑ **Strategic relationships:**

<b>Computer Associates</b>	<b>Microsoft</b>
<b>IBM</b>	<b>Novell</b>
<b>Informix</b>	<b>Oracle</b>
<b>Lotus</b>	<b>Sybase</b>

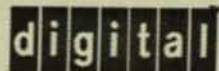
**Increased Corporate focus, resource and investment**



# Client-Server Software Services

---

- Network OS**                      **Access Resources from Any Client**
- Mail**                                      **Send Mail to Any User**
- Directory Services**                      **Find Objects on Any Server Platform**
- DataBase Integrator**                      **Access Information on Any Database**
- Transaction Processor**                      **Execute Transactions on Any Server**
- Systems Management**                      **Manage Client/Server Environment**
- Enterprise Objects**                      **Provide Advanced Technology to the  
Enterprise Client/Server Environment**
- Internet**                                      **Connect to all Other Enterprises**



# **Mail/Messaging**

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## **□ MAILworks**

- » **Post Office server with message store and rule handling**
- » **Vehicle for Interoperating with the Plethora of Mail Clients**

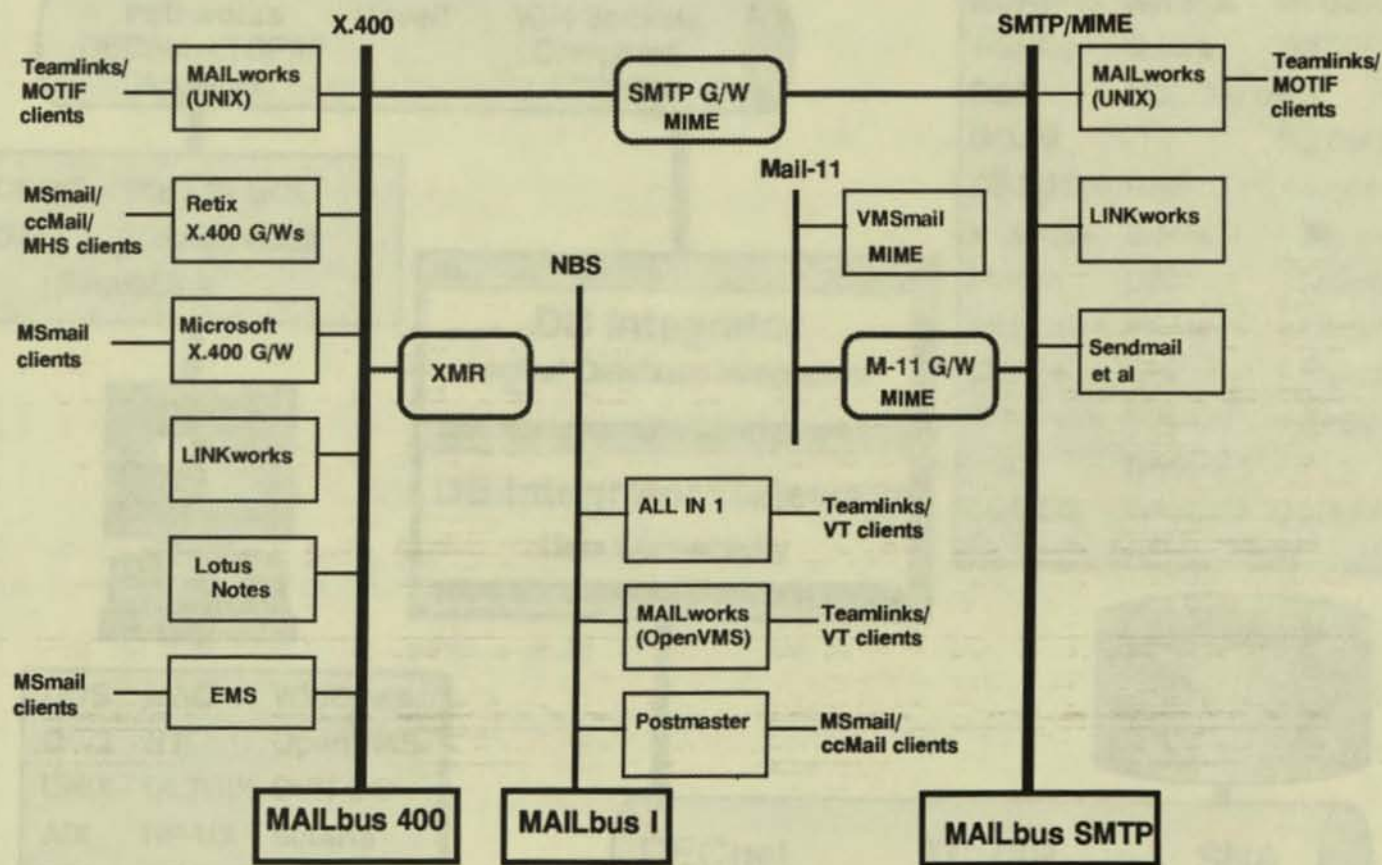
## **□ X.400**

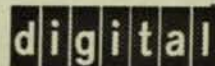
- » **Store and Forward transport between Post Offices**
- » **Support of the Standard Interconnect for Backbone and Inter-Enterprise Messaging**

## **□ X.500**

- » **Directory/Naming Services for Inter-Enterprise Objects and Messaging**
- » **Automatic synchronization and integration with Post Offices and clients**

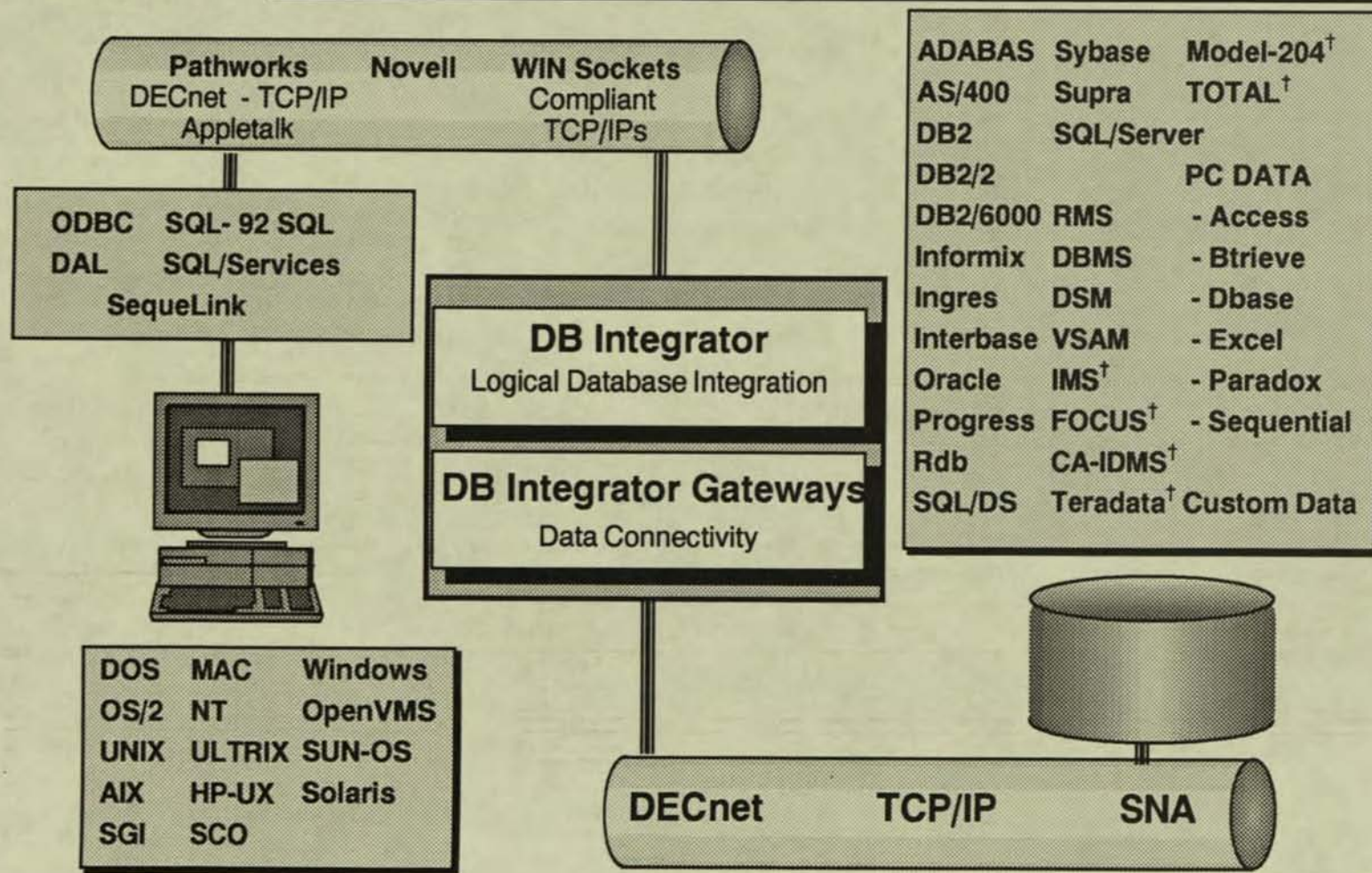
# Digital Messaging Backbones



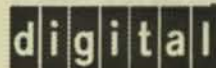


# Environment Support

## ACCESSWORKS/DB Integrator V3.1



<sup>†</sup> Read-Only



# Digital's TP Strategy

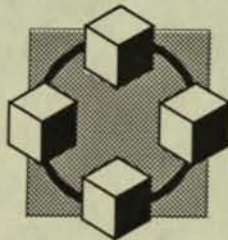
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- ❑ **Focused with ONE "API" for each key market:**
  - » Installed base: ACMS Classic (& migration to STDL)
  - » IBM Downsizing: CICS Monitor
  - » Open, Client/Server: Encina
  - » Emerging SPIRIT/Xopen Standard: STDL
- ❑ **Shared Encina infrastructure for CICS, Encina, STDL**
- ❑ **Differentiators to Digital's Encina base:**
  - » System Management, Clusters
  - » Performance, especially for client/server
  - » Based on over a decade of experience in client/server TP

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# POLYCENTER™

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**Network  
Management**



**Storage  
Management**



**Asset  
Management**



**Problem  
Management**



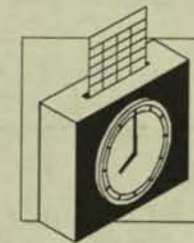
**Administration  
and Operations**



**Performance  
Management**



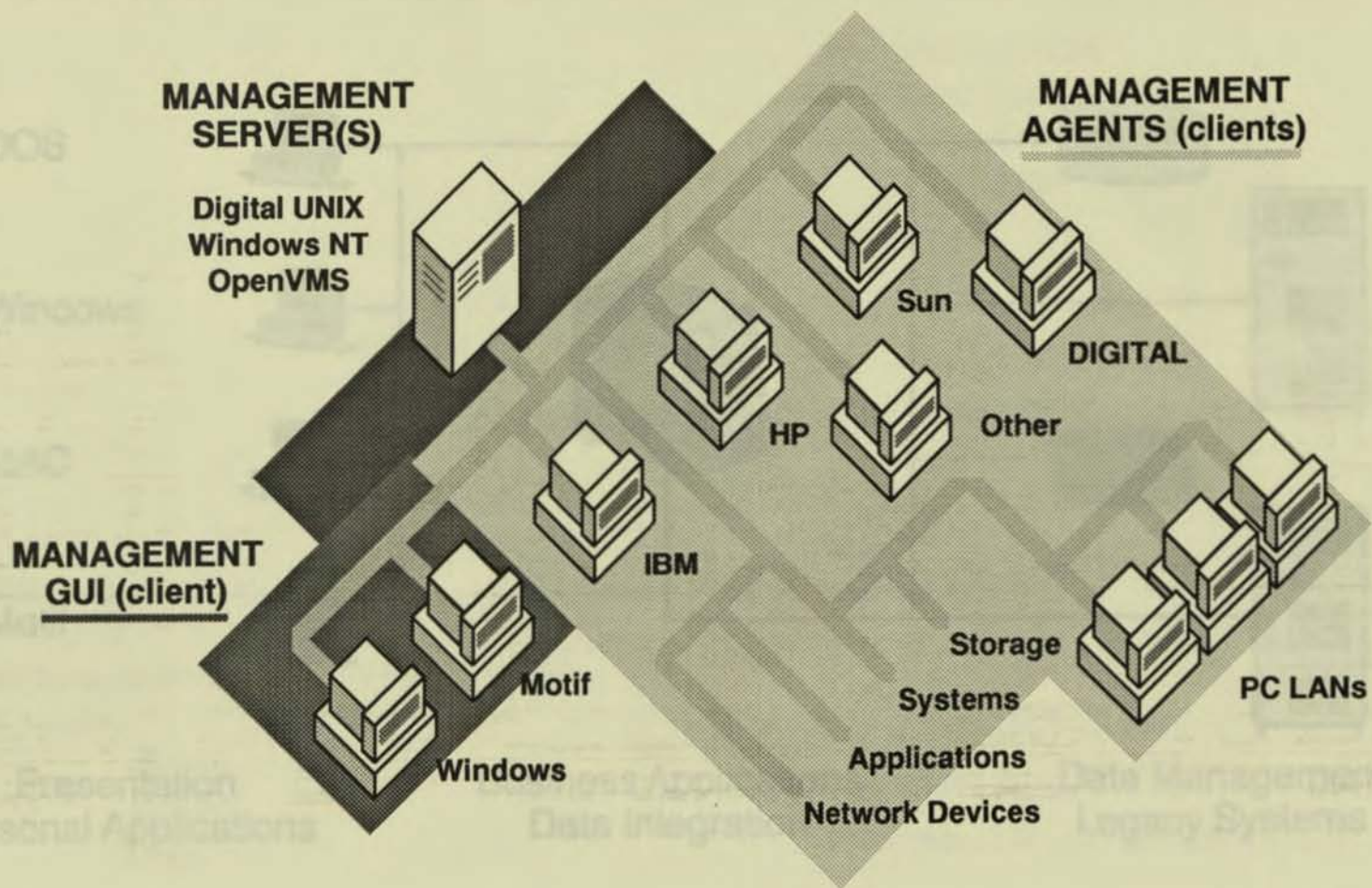
**Security  
Management**



**Billing and  
Accounting**



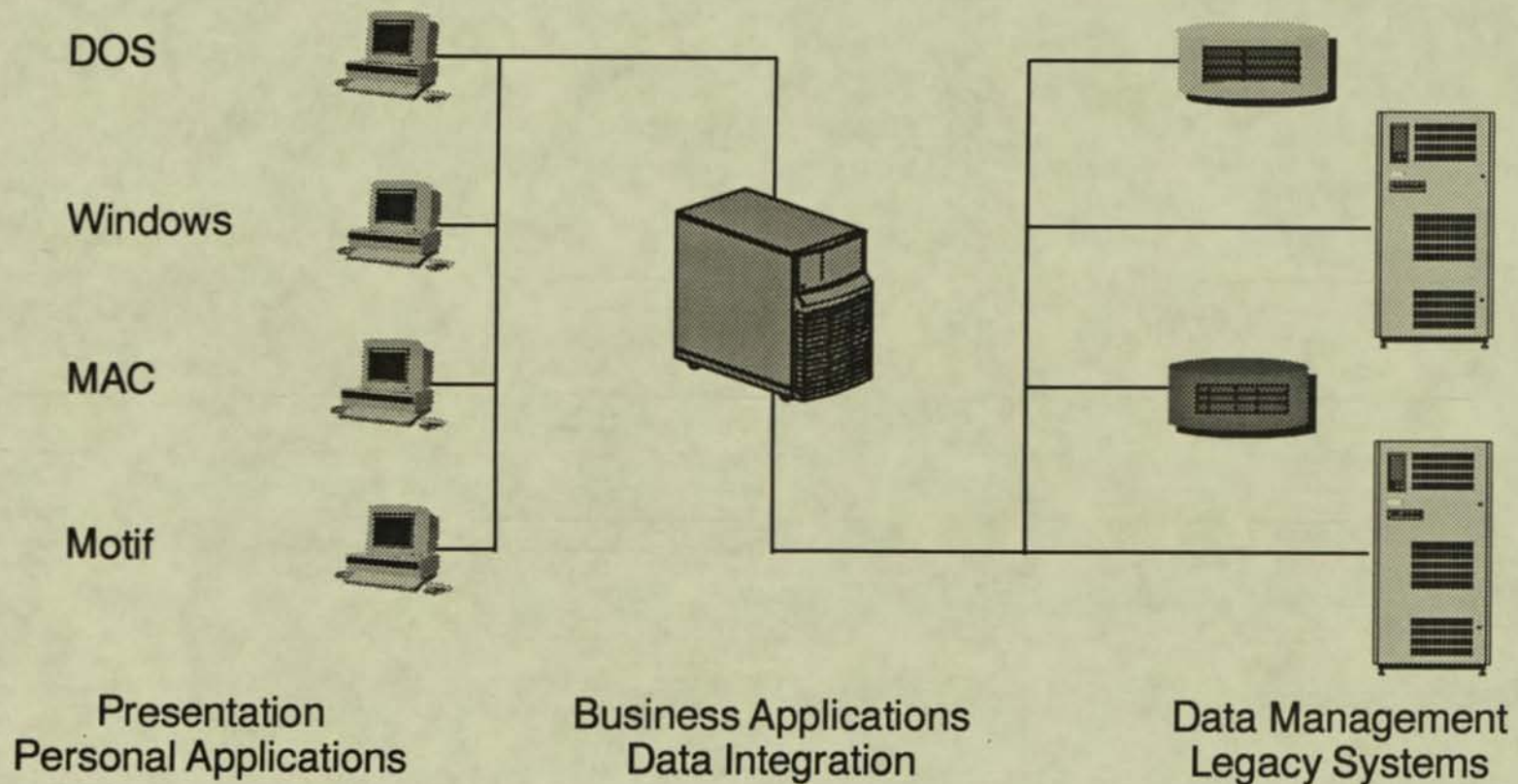
# Management Platform Strategy





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# Client/Server Computing



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# Next Generation **POLYCENTER™ Manager**

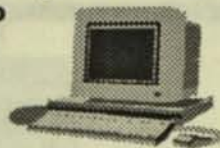
*Traditional*

*Ed*

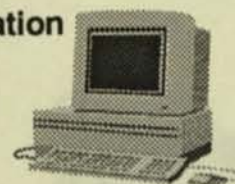
Windows GUI  
Intel Laptop  
LAN Manager APIs  
IPX, SNMP



Windows NT GUI  
Alpha PC  
LAN Manager, SMS, NetView APIs  
IPX, SNMP, CMIP



UNIX Motif GUI  
Alpha Workstation  
NetView APIs  
SNMP, CMIP



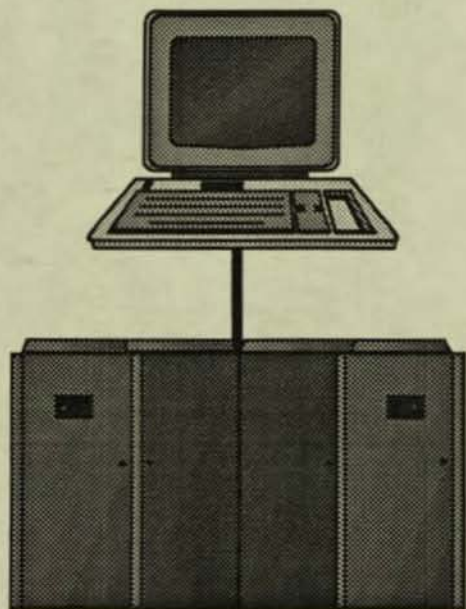
Common GUI Style  
Common Application Launch  
Common Data Interchange

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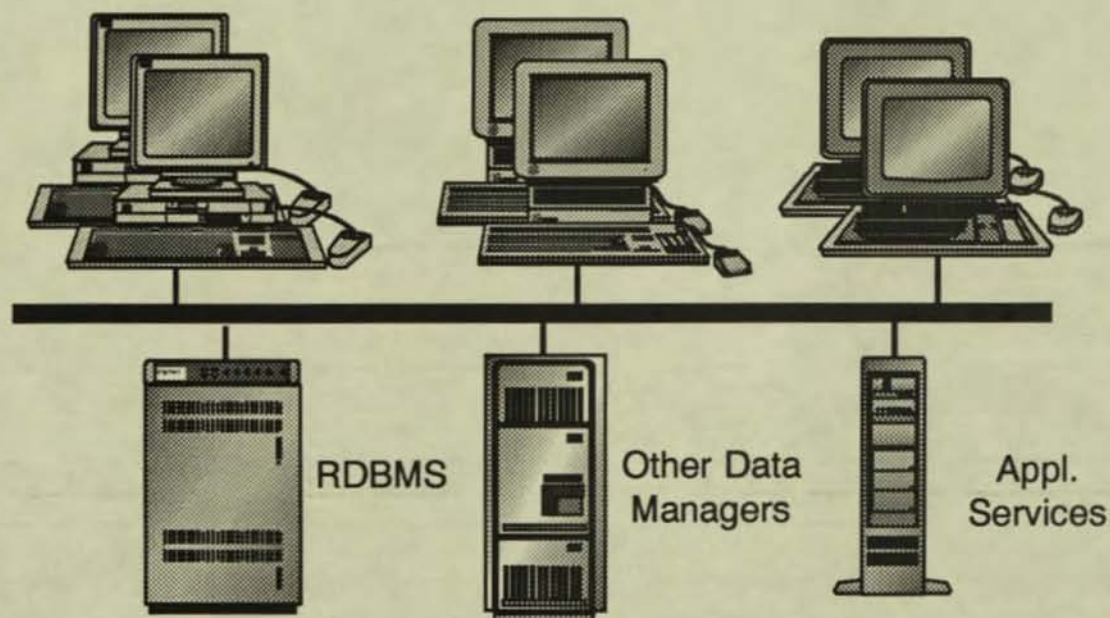
# Next Generation Client/Server Computing

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Traditional



Forté

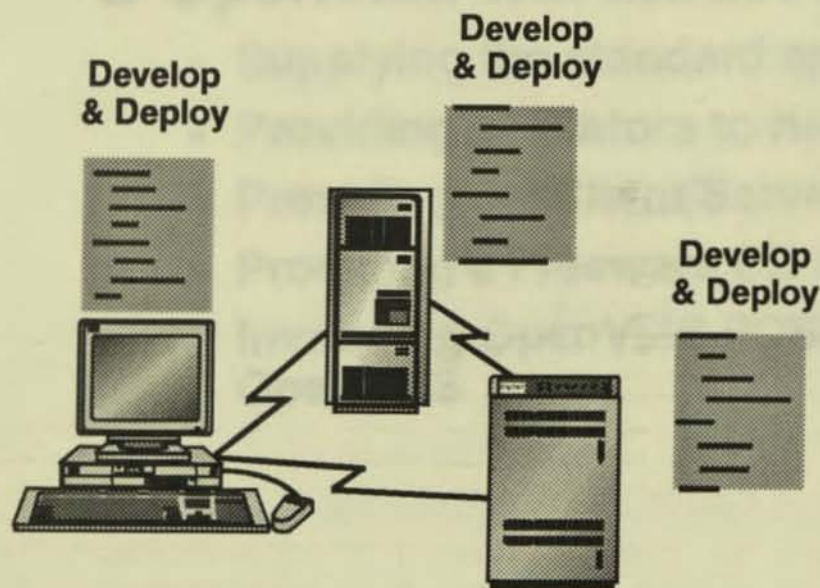


***Advanced application development and  
runtime system for mission-critical  
client-server applications***

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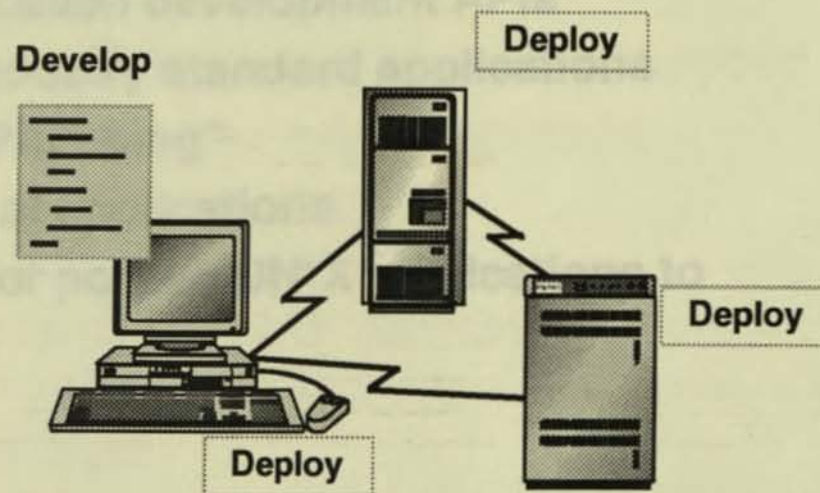
# Attracting and Capturing Cross-Platform Integration

## Traditional



- High expertise on each platform
- High expenses for integration
- Explicit management of networking

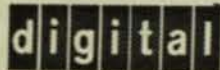
## Forté



- Development on the desktop
- Vastly decreased integration cost
- Transparent distribution

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Eli Lilly / PFC 06 Mar 95 # 18



# **Attracting and Capturing Applications for OpenVMS**

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- **OpenVMS will attract and capture applications by:**
  - » **Supplying the standard application development APIs**
  - » **Providing emulators to run industry standard applications**
  - » **Providing the Client/Server “Plumbing”**
  - » **Providing a Freeware CD full of applications**
  - » **Improving OpenVMS POSIX for porting UN\*X applications to OpenVMS**



# Attracting and Capturing Applications for OpenVMS

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- **Providing emulators to run applications**
  - » **Softwindows for OpenVMS Alpha**
    - **Runs shrink-wrapped Windows software at highend 386 speed**
    - **Next version to support 486 architecture & to improve performance**
  - » **Investigating a Windows NT Alpha Emulator**
    - **Alpha instructions so no emulation of the application code, it just runs!**
    - **Captures the newest applications**



# Attracting and Capturing Applications for OpenVMS

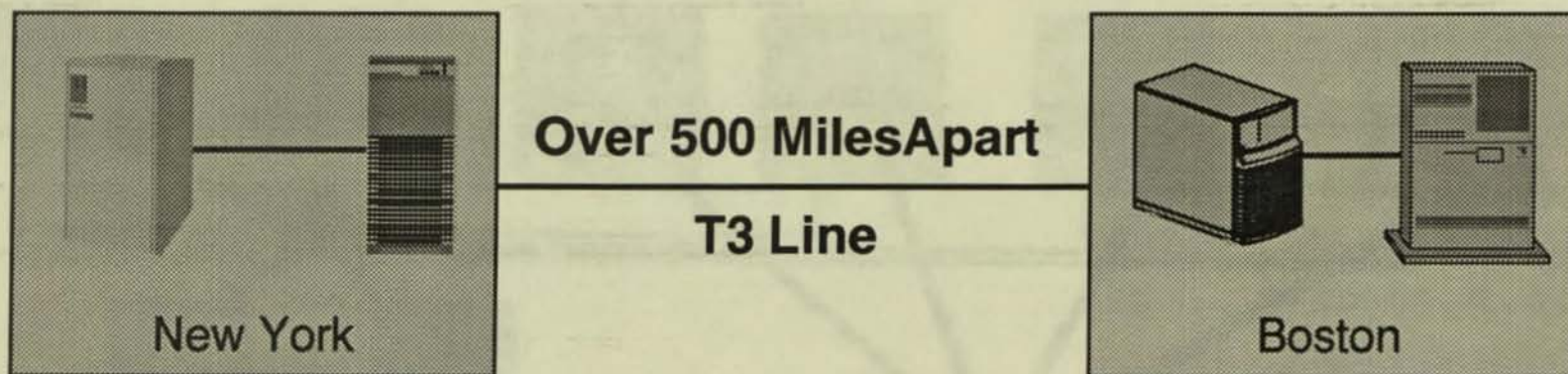
---

- **Providing the Client/Server “Plumbing”**
  - » **TCP/IP on OpenVMS “as integrated as DECnet**
  - » **XTI & an extended socket library on OpenVMS**
  - » **DCE and the DCE APIs for RPC, Distributed Time, Distributed Security, & Distributed Naming**
  - » **Kerberos support in the DCE security server**
  - » **X11 and Motif for distributed user interface**
  - » **OLE/COM for distributed objects and OLE/COM object servers on OpenVMS**

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# OpenVMS Cluster Enhancements

## *Disaster Tolerant Wide Area Clusters*

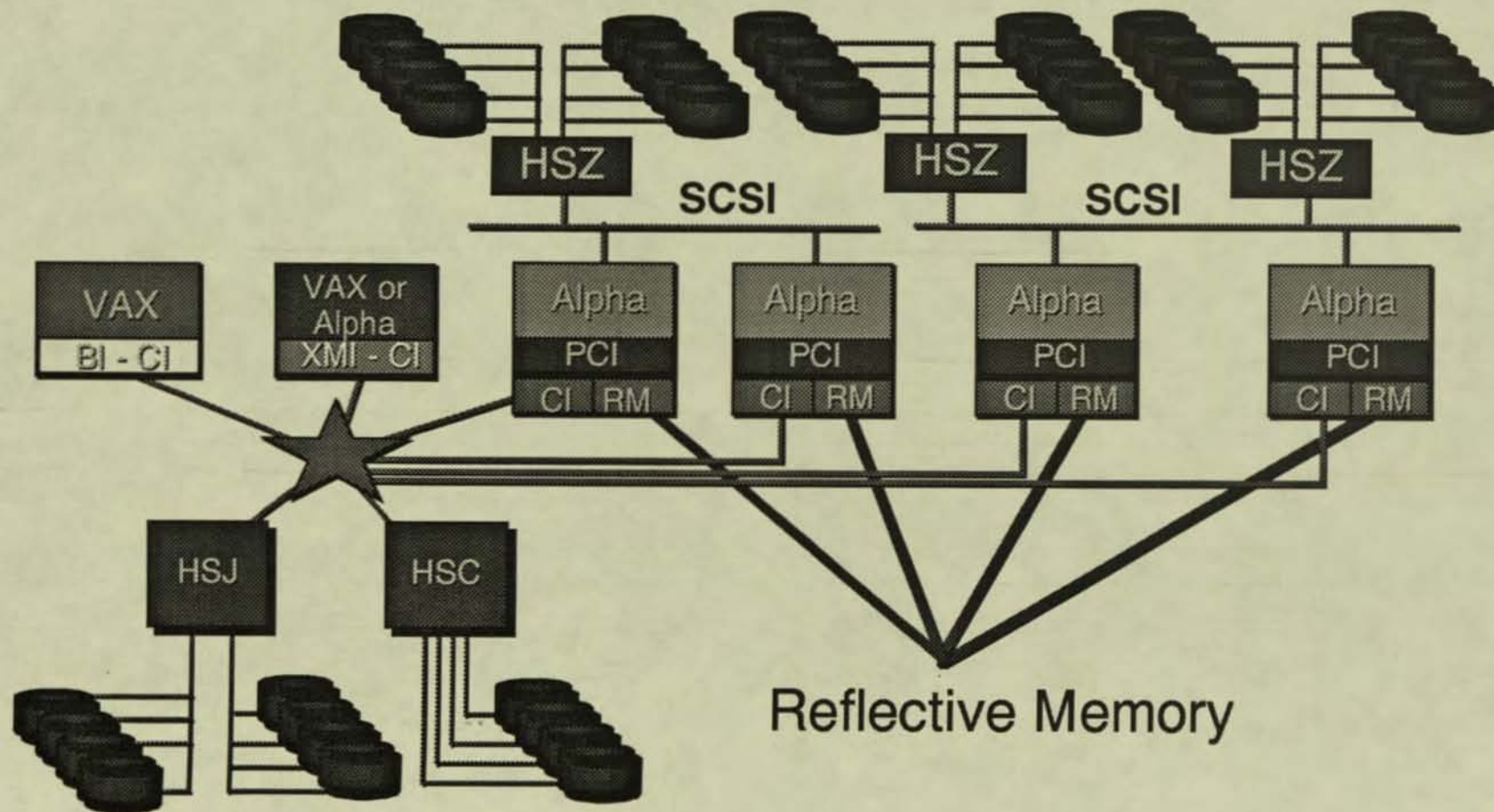




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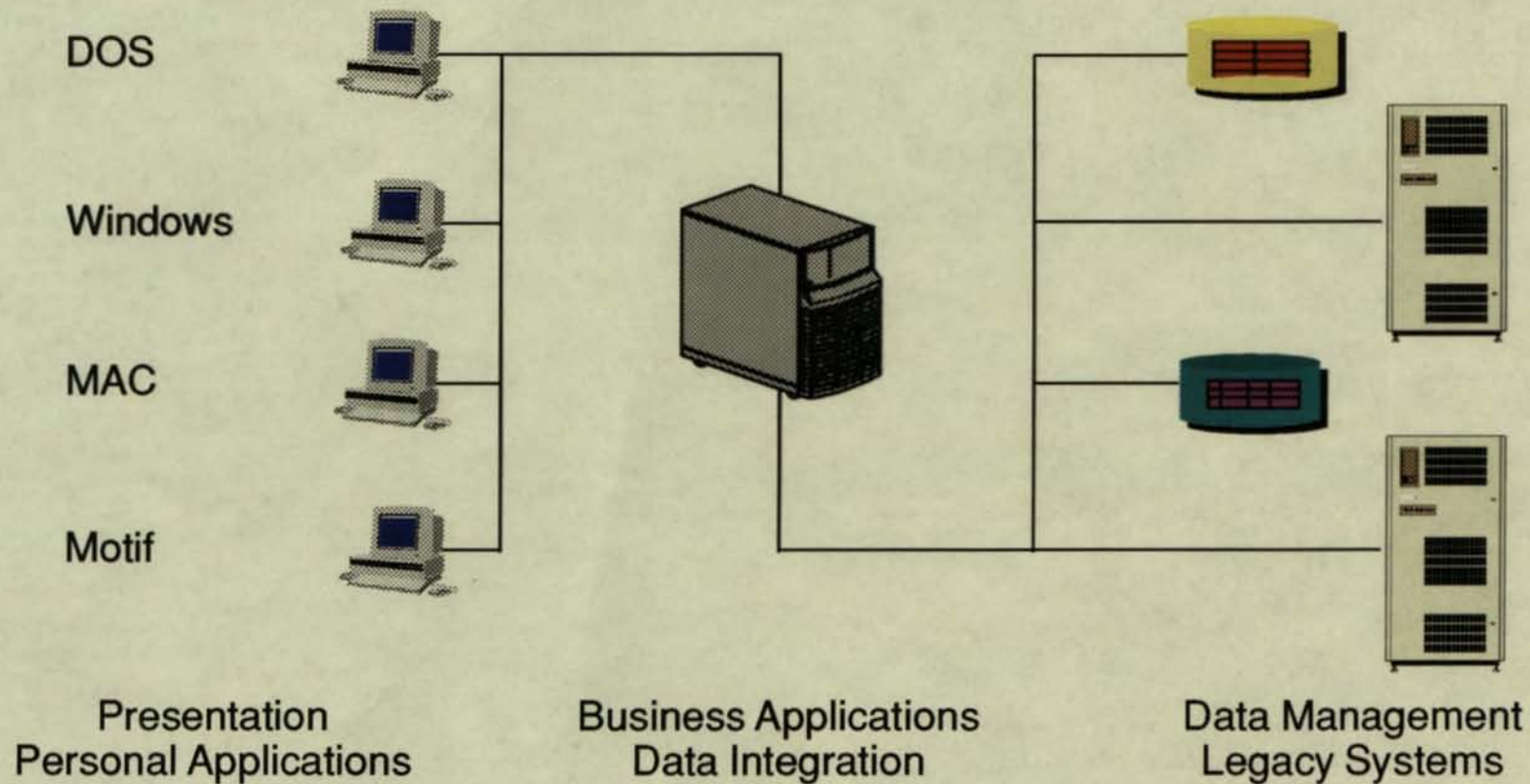
# OpenVMS Clusters: Stage V Evolution

Introduce Reflective Memory



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# Client/Server Computing



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