
Impact of
Network Computing

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Impact of Network Computing

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***Impact of Network
Computing***

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Slide Number 1

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Notes:



Agenda

- Internet Applications
- Network Computers
- Enterprise Computing

Slide Number 2

09/06

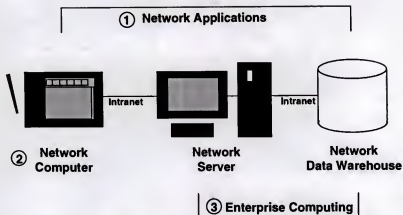
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Notes:



Network Computing



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Notes:



Network Computing Business Opportunities

- **Network computing revolution will create:**
 - \$60 billion software industry by 2000
 - \$45 billion hardware industry by 2000
 - \$106 billion IT services industry by 2000

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Notes:



**Migration of Applications to
New Intranet Platforms**

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Notes:



Internet's Impact on Applications

- “Opens” collaboration
- Migrates business operations applications to the network
- Interactive applications emerge
- Enables electronic business

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Notes:

Client/Server Application Development

- **50% believe time & cost prohibitive**
- **75% believe Internet applications solve the problem**
 - lower cost of deployment & maintenace

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Notes:



Advantages of Internet Applications

- Lower deployment & maintenance costs
- Balance load across thousands of servers
- Serve millions of client devices
- Mix database types
- Easily modify system and software

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Notes:



Internet Application Platform War

- “Open” Group
 - Netscape, Oracle, Sun, Novell
- Wintel Group
 - Microsoft’s ActiveX & Network OLE
- “Wait & See” Group
 - Hewlett Packard, Digital
- IBM

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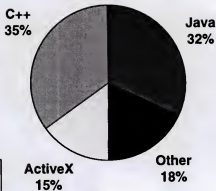
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Notes:



Preferred Internet Application Development Language



Survey: 120 Fortune 1000 Co's
Source: Revolutionary Migration
of Applications to the Internet

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Notes:



Vendors Connecting Applications to the Web

- **OneWave Inc. connecting to SAP, Baan**
- **NetDynamics connecting to PeopleSoft**
- **Lotus connecting Notes to Web with Domino**

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Notes:



Examples of Migrated Applications

- **Corel's Office Apps (WordPerfect)**
- **Dun & Bradstreet's SmartStream Web Series**
- **Applix, Inc.'s Espresso!**
- **Netscape's Collabra**

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Notes:



The Internet Will Have Greatest Impact On:

- **Cross-industry Applications**
 - Human Resources
 - Office Automation
 - Engineering & Scientific Collaboration
- **Vertical Industry Applications**
 - Business services
 - Retail & wholesale

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Notes:



CSX Corp. Case Study

- **Largest freight transporter in U.S.**
- **Transportation Workstation (TWS)**
- **Inter-Enterprise Application**
 - Migrated from C++ to Java
 - Three phases
- **Resulted in time and cost savings**

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Notes:



Internet Drives Interactive Applications

- Applications that interact with customers
- Electronic helpdesk
- Call centers
- Sales and marketing applications

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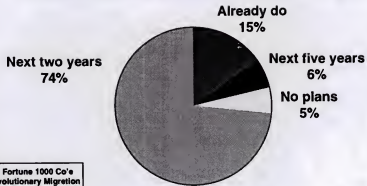
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Notes:



Extending Applications to Customers on Internet



Survey: 120 Fortune 1000 Co's
Source: Revolutionary Migration of Applications to the Internet

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Notes:



Internet Drives Super Vertical Applications Opportunities

- **Business processes will be reengineered across industries**
- **Super-vertical applications will enable the automation of these processes**
- **Sales model for application software products will change**

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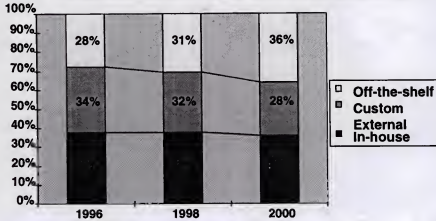
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Notes:

Who Will Develop Internet Applications



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Notes:



Conclusions

- Applications will migrate to the Internet to decrease deployment & maintenance costs
- Internet platform will be a mixture of competing technologies

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Notes:



Recommendations

- Reengineer business processes beyond the boundaries of the corporation
- Enable the automation of these processes with Internet technology
- Develop collaborative applications internally
- Develop interactive applications externally

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Notes:





**Internet Appliances -
Challenge & Opportunity**

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Notes:



How PC Users Spend Their Time

- **15% of PCs used for single-task functions (data entry, POS, etc.)**
- **User's time on PC:**
 - 1/3 on Internet software (Web, email)
 - 1/2 on "office" applications

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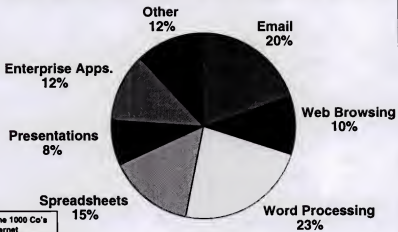
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Notes:

PC Usage



Survey: 120 Fortune 1000 Co's
Source: Use of Internet
Appliances in the Corporation

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Notes:



Will Internet Appliances Take Sales from PCs?



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Notes:

Internet Appliances

● **Benefits**

● **Challenge** ➡ **Applications**

● **Opportunities** ➡ **Solutions
Services**

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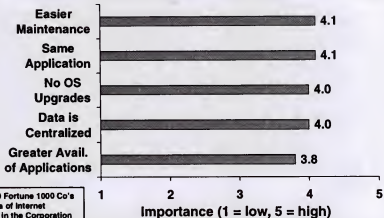
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Notes:



Benefits of Internet Appliances



Survey: 120 Fortune 1000 Co's
Source: Use of Internet Appliances in the Corporation

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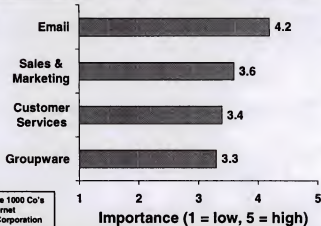
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Notes:



Internet Appliance Application Usage



Survey: 120 Fortune 1000 Co's
Source: Use of Internet
Appliances in the Corporation

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Notes:

Network Computer Applications

- CSX using Sun's JavaStations internally and at customer sites
- FTD uses network computers at 20,000 affiliated flower shops around the world

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Notes:

Network Computer Applications (continued)

- **Marimba offers NC software for users to subscribe to channels**
- **Active Software offers workgroup software programs for NCs**

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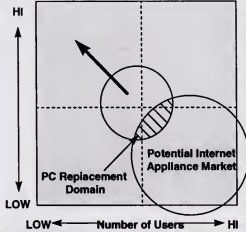
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Notes:



Potential Internet Appliance Market



Information Analyzer
Information Producer
Information Mover
Information Consumer

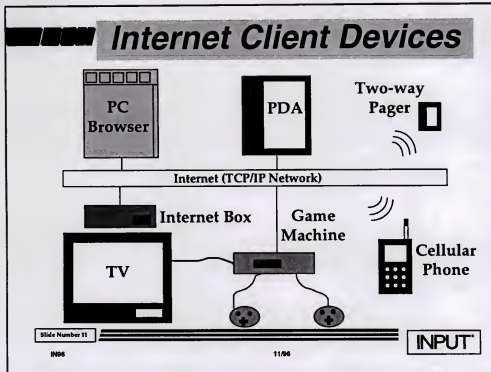
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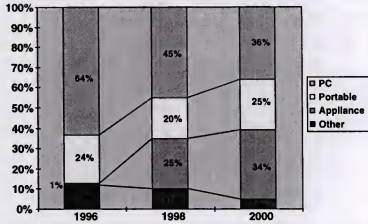
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Intranet Access by Device Type



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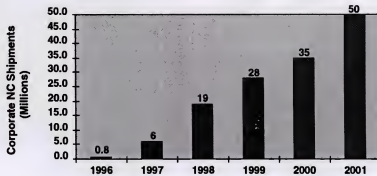
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Notes:



Network Computer Shipments, Worldwide



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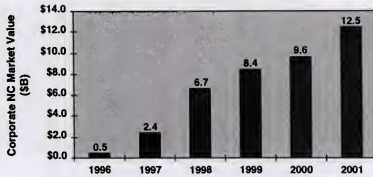
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Notes:

Network Computer Market, Corporate, Worldwide



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Notes:

Conclusions

- Network computers **WILL** replace PCs in the corporation
- NC sales in the corporation will equal PC sales by the end of 2000

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Notes:

Recommendations

- Question the acquisition of new PC clients
- Purchase new network computers for greater access and manageability
- Replace PCs with NCs to lower maintenance costs and centralize administration

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Notes:





Intranet Impact on Enterprise Computing

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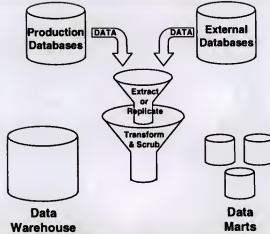
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Notes:



What is a Data Warehouse?



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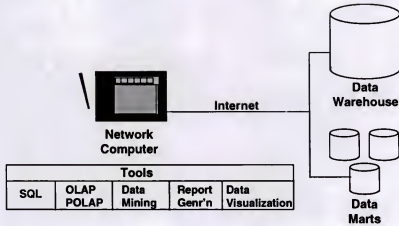
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Notes:

Tools to Analyze the Data



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Notes:

Impact of Intranets on Data Mining

- **Easier & faster access and analysis**
- **Inter-enterprise reengineering**
- **New operational applications**

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Notes:

Consumerizing the Data Warehouse

● **simple and cost-effective way to expand the reach of the data warehouse to:**

- employees**
- strategic business partners**
- outside vendors**
- corporate customers**
- individuals**

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Notes:



Internet Complements Data Warehouse

- Removes the complexity of traditional client-side software
- Decreases capital intensity and project expense

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Notes:



Case Study: Catalog Sales

- **Business Problems**
 - Customer retention
 - Cross-selling
 - High direct mail cost

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Notes:



Case Study: Catalog Sales

- **Technical problems**
 - Fragmented data from many OLTP systems
 - No way to view “whole customer”
 - No demographic data
 - Impossible to analyze data
 - Current solutions too costly to employ

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Notes:



Case Study: Catalog Sales

● **Solutions**

- Data warehouse connected to the Web
- Daily update
- Ad hoc access
- Multiple analysis tools

● **Result**

- Increase in sales
- Decrease in mail costs

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Notes:



OLAP Vendors Providing Data Warehouses from Browsers

- Arbor Software's Essbase Web Gateway
- MicroStrategy's DSSWeb
- Information Advantage's WebOLAP

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Notes:

Internet Drives Requirement for Scalable Data Warehouses

- **Corporations are rapidly turning to scalable/parallel hardware and database platforms**
- **Need to marry large-scale data warehouses to MPP systems**

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Notes:



Electronic Commerce Will Create Data to Mine

- Mining transaction data results in better control of inventory
- Transactions on the Internet will drive the demand for data analysis tools market

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Notes:



Return of the Super Service Bureau

- **Centralized control**
- **Low cost of maintenance & administration**
- **High level of security & integrity**
- **Expandable computing power & data storage**
- **Greater reliability**

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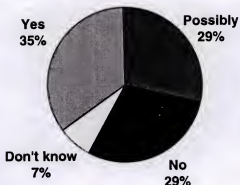
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Notes:



Will Future Applications Be "Leased" on the Internet?



Survey: 120 Fortune 100 Co's
Source: Revolutionary Migration
of Applications to the Internet

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Notes:



Conclusions

- Internet is accelerating the demand for data warehousing and mining solutions
- Data mining will guide decision-making for electronic business
- Purchasing bureau services on the Internet will result in cost savings

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Notes:



Recommendations

- **Centralize data in a warehouse**
- **Connect the data warehouse to your Intranet**
- **Deploy data mining software to network computers and PCs**
- **Implement electronic business systems together with data warehouses**

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Notes:

