

**THE EDI
SERVICES
AND SOFTWARE
MARKETS**

**Victor S. Wheatman
Manager-EDI Planning Services
INPUT**

INPUT

NOTES:

USM1-VW-1



Electronic Data Interchange

The Computer-to-Computer Exchange of
Intercompany Business Documents
and Information

- Overcomes Incompatibilities
- Standard Formats

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NOTES:

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EDI Transmits Electronic Business Documents

- Machine Readable
- POs, Invoices, etc.
- Also Health Care Claims, Others
- Not ATM, POS, or E-Mail

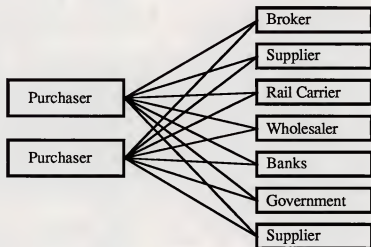
INPUT

NOTES:

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EDI Links Can Get Complicated



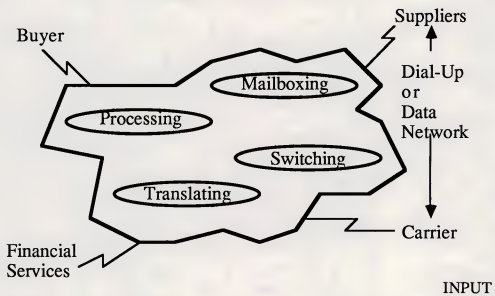
INPUT

NOTES:

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VAN/RCS Role in EDI



NOTES:

USM1-VW-5



Major EDI Services

G.E. Information Services

The EDI Express

McDonnell Douglas Electronic
Data Interchange Systems Co.

EDI Net

Sterling Software

Ordernet

IBM

Information Exchange

Control Data

Redinet

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NOTES:

USM1-VW-6



Private EDI Networks

Rockwell	Auto Makers
Caterpillar	Hewlett-Packard
Sears/Penneys	American Hospital Supply
General Foods	Levi-Strauss
Motorola	Others

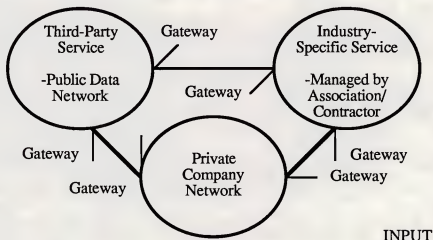
INPUT

NOTES:

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Three Types Of EDI Networks



NOTES:

USM1-VW-8



EDI Software Functions

Table Driven Translation - Hard Coded

Transaction Sets - Electronic Document Formats

Document Processor - Editor and Output

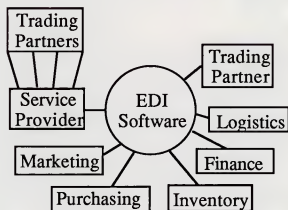
Optional Communications Module

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EDI Software Is The Core Of The System



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NOTES:

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SURVEY FINDINGS

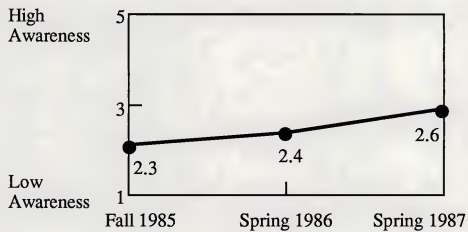
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NOTES:

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EDI Awareness Is Growing

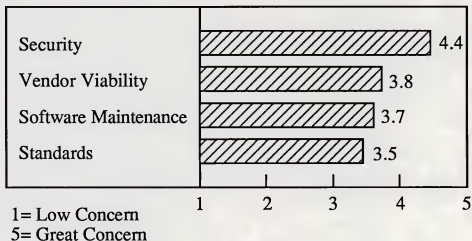


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Users' EDI Concerns

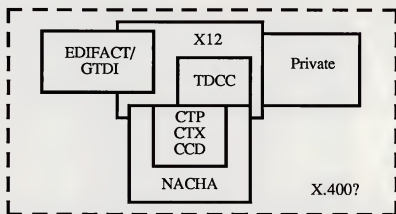


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EDI Standards Relationships



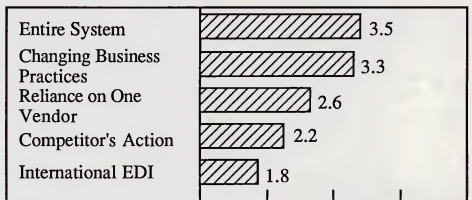
INPUT

NOTES:

USM1-VW-14



Users' EDI Concerns



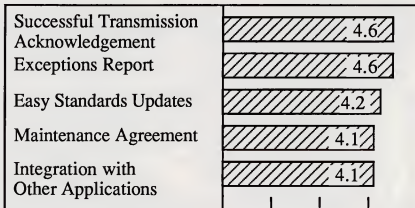
1= Low Concern
5= Great Concern

INPUT

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Software Features Importance



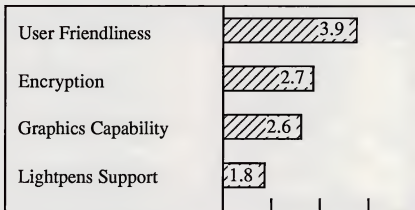
Scale: 1 - Not Important 1 2 3 4 5
5 - Very Important

INPUT

USM1-VW-16



Software Features Importance



Scale: 1 - Not Important
5 - Very Important

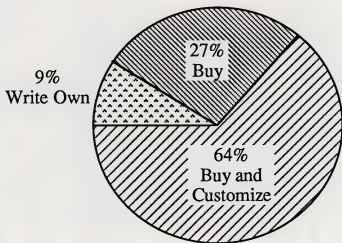
1 2 3 4 5

INPUT

USM1-VW-17



Build Or Buy EDI Software User Responses

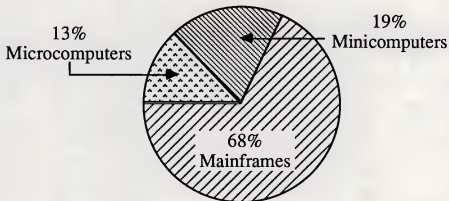


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Computers Planned Or Used For EDI User Responses



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More Micros Will Be Used For EDI Than Suggested

- Functional Departments will Interface PCs to Mainframes
- PC Implementation - Easiest, Less Expensive
- Small Companies Do Not Have Larger Processors

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EDI CASE STUDY
LEVI-STRAUSS

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USM1-VW-21



Levi-Strauss

- 17,000 Retailers—200,000 Stores
- Retail Electronic Services—
a Marketing Group
- Also Responsible for Supplier EDI

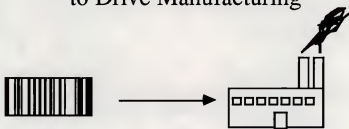
INPUT

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Levi-Strauss

Key Concept:
Capture POS Data
to Drive Manufacturing



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USM1-VW-23



Levi-Strauss

Retail Services:

- Sell Through Analysis and Reporting System (STARS)
- Model Stock Management
- Retailer EDI (REDI)
- Purchase Order Reconciliation

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Levi-Strauss

Benefits:

- Improved Turns
- Fewer Stock Outs
- Enhanced Retailer Relations

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EDI CASE STUDY

**FIRST NATIONAL
BANK OF CHICAGO**

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First Chicago

President's Mandate:

"We Will Do EDI"

- Purchasing
- Potential Service

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First Chicago

1985: No Supplier Was Ready

So: Loaned Software
Underwrote Costs
Free Training & Installation

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First Chicago

Cost Benefit Analysis (1985):

Would Cost More—Not Less

- Dual Systems
- But Costs have Moderated

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First Chicago

Implementation

- 65 Staff on Project
- "Bilingual" Users' Guide
- 25-Point Software and Network Evaluation

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First Chicago

Transactions

	<u>Electronic</u>	<u>Paper</u>
1986	1,200	1 million
1987	4,800	
1988	20,000	50,000

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First Chicago

Benefits

- \$2.5 Million in Annual Savings
- Enhanced Control/Monitoring—
"Everything By Registered Mail"
- Experience Applied to EDI Services

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EDI CASE STUDY
HEWLETT PACKARD

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H-P

- 56 Plants in 15 Countries
- Decentralized → Integrated
- Entrepreneurial/Complex

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H-P

EDI Approach

Steering Committee	-Policies
EDI Central	-Technical
Business Units	-Unit Interfaces
	-Implementation
	Partner Relations

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USM1-VW-35



H-P

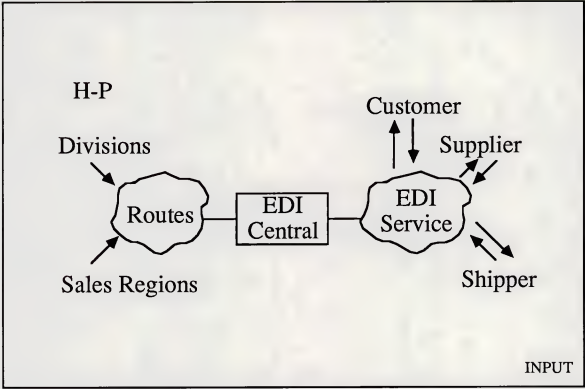
EDI Goals

- Industry Leader
- Improve Customer Satisfaction
- "One Company" Image
- Eliminate Duplication

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USM1-VW-36







H-P

Recommendations

- Centralize Approach through Steering Committee
- Participate in Standards Groups
- Watch Secondary and Third-Order Issues
- "Spread the Gospel"

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EDI In Discrete Manufacturing

Segment	Activity Summary
Auto	EDI Essential to Reduce Costs; "Big 3" Private Nets moving to Public Standards
Electronics	EDX Conforms to X12

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EDI In Discrete Manufacturing

Segment	Activity Summary
Telecommuni- cations Equipment	TCIF Just Starting - Promoting X12 and Bar Coding
Apparel	EDI Tied to "Crafted with Pride in the USA"

INPUT

USM1-VW-39a



EDI In Process Manufacturing

Segment	Activity Summary
Paper Products	EMLINK on GEISCO - Trade Association Product
Metals	Growing List of ANSI Product Code Descriptors

INPUT

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EDI In Process Manufacturing

Segment	Activity Summary
Oil/Gas	COPAS Integrating EDI; Working on Unique Needs
Chemicals	CIDX Used by 30+ Companies

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USM1-VW-40a



EDI In Distribution

Segment	Activity Summary
Groceries	UCS Used by Most Large Firms
Office Products	Industry Association Project (ICOPS) Used by 40 Wholesalers, Large Dealers, and Manufacturers

INPUT

USM1-VW-41



EDI In Distribution

Segment	Activity Summary
Warehousing	WINS Standard is Similar to UCS
General	Large Distributors and Mass Merchandisers (McKesson, K-Mart) Using Private Networks

INPUT

USM1-VW-41a



EDI In Transportation

Segment	Activity Summary
Rails	Large Companies Using Private Systems, Industry Association RCS, and Kleinschmidt
Trucking	60-200 Firms Using EDI
Ocean	U.S. Customs Promoting EDI to Cut Paperwork

INPUT

USM1-VW-42



EDI In Medical Products And Services

Segment	Activity Summary
Pharmaceuticals	Wholesalers Active for 15 Years; Proprietary Standards Migrating to X12 for Entire Industry

INPUT

USM1-VW-43



EDI In Medical Products And Services

Segment	Activity Summary
Medical Supplies	Captive Systems Best Known: AHS
Optometry	TOP Network Helping Independents Compete Against Retail Chains

INPUT

USM1-VW-43a



EDI In Services

Segment	Activity Summary
Health Claims	UB 82 and HCFA Formats; Growing Usage
Insurance	Industry Association Improving Interface/ Methods between Independent Agents and Carriers

INPUT

USM1-VW-44



EDI In Services

Segment	Activity Summary
Overnight Courier	EDI Used to Improve Customer Service to High-Volume Users
Banks	Growing Interest as Users, Uncertainty as Service Providers

INPUT

USM1-VW-44a



EDI In Services

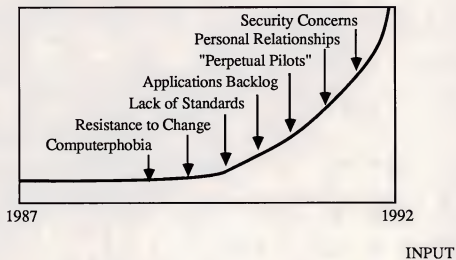
Segment	Activity Summary
Tax Preparation	First Year of Business Electronic Filing Test, Second Year of Personal Returns Test.

INPUT

USM1-VW-44b



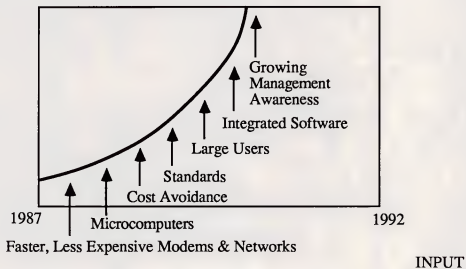
Negative Factors Impacting EDI



USM1-VW-45



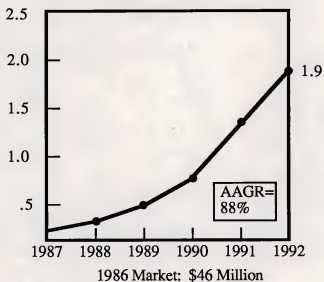
Positive Factors Impacting EDI



USM1-VW-46



EDI Market Forecast*



*Network/Processing Services, Software, Professional Services

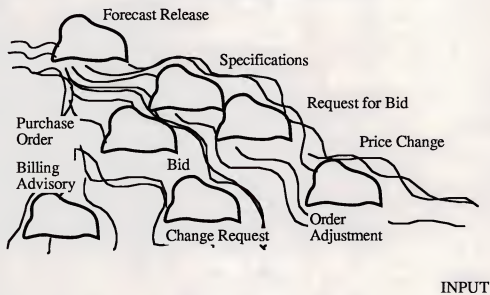
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NOTES:

USM1-VW-47



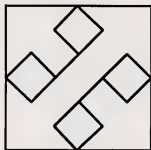
The Cascade Effect



NOTES:

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**EDI/
APPLICATION
INTEGRATION**

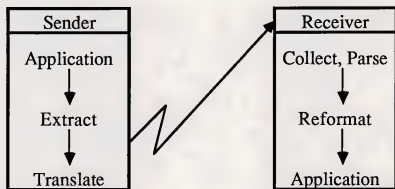
INPUT

NOTES:

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EDI/Application Integration



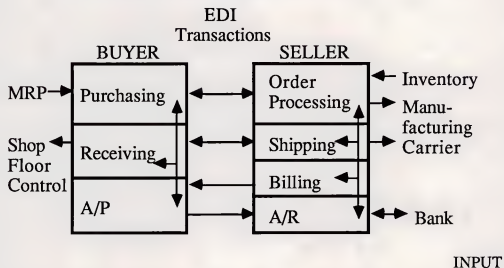
INPUT

NOTES:

USM1-VW-50



EDI/Application Integration

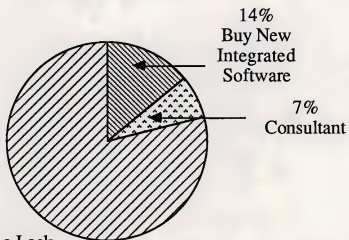


NOTES:

MSC1-VW-51



EDI Integration Method User Responses



Comment: Reflects a Lack
of Integrated Solutions

INPUT

USM1-VW-52



EDI/Application Integration

- Effects many departments
- Top management needs to set corporate goals
- Task force approach required

INPUT

NOTES:

USM1-VW-53



EDI/Application Integration

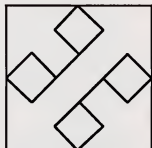
- P.S. Firms Can Assist
- EDI a Starting Point for Total Operational Improvements

INPUT

NOTES:

USM1-VW-54





**ENHANCED
EDI SERVICES/
SYSTEMS**

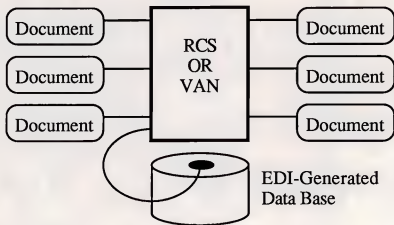
INPUT

NOTES:

USM1-VW-55



EDI Traffic Becomes A Data Base



INPUT

NOTES:

USM1-VW-56



EDI Traffic Becomes A Data Base

Only Example: SSW's Medimetrik

-Aggregate Pharmaceutical Information

Others Can Benefit

Applications:

- Market Research
- Sales/Distribution Analysis

INPUT

NOTES:

USM1-VW-57



Data Bases Can Facilitate Trading

Example: Schweber Net

- Exclusive Use of Video Log
 - Electronic Components
 - NAPLPS Graphics
- On-Line Order Entry
 - Ordering System → Pick List
- Competitive Advantage

INPUT

NOTES:

USM1-VW-58



Graphics/EDI Integration

Examples: -Schweber Net
-Design * Express (Geis)
-WSSDOM (AT&T/CAD CAM Inc.)

Premise: Graphics needed in buying decisions-
aerospace, electronics, speciality
manufacturing, others

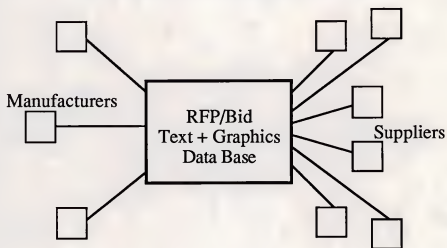
INPUT

NOTES:

USM1-VW-59



WSSDOM-Supplier Link



INPUT

NOTES:

USM1-VW-60



EDI/E-Mail Integration

- GEIS EDI * EXPRESS → QUIK-COMM
- ORDER NET → EDI/Laser mail (Hard Copy Conversion)
- ORDER NET → FAX

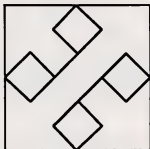
Opportunity: E-MAIL FORMS/SCRIPTS → EDI

INPUT

NOTES:

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EDI
INTER-
NETWORKING

("INTERWORKING")

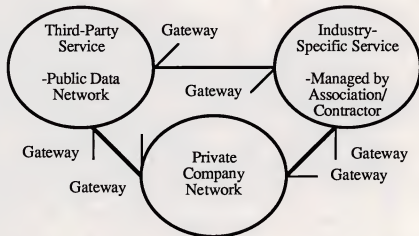
INPUT

NOTES:

USM1-VW-62



Three Types Of EDI Networks



INPUT

NOTES:

USM1-VW-63



EDI Internetworking

REASONS

- Trading Partners On Other Services/Networks
- Cross-Industry Trading
 - Cross-Industry Translations
- "Universal" Data Services
- Goal: Transparency

INPUT

NOTES:

MSC1-VW-64



Interworking: The Future X.400

- E-mail (Messaging) Connectivity
- EDI Documents Within X.400 Envelopes
- International Implications
- Mixed Media (Voice, Video, Graphics, Data)

INPUT

NOTES:

USM1-VW-65



User Recommendations

- Sell EDI Internally and to Trading Partners
- Build EDI onto On-Line Order Entry or Other Information Systems
- Use Development Assistance From Third Parties and Industry Associations to Minimize Risks

INPUT

USM1-VW-66

