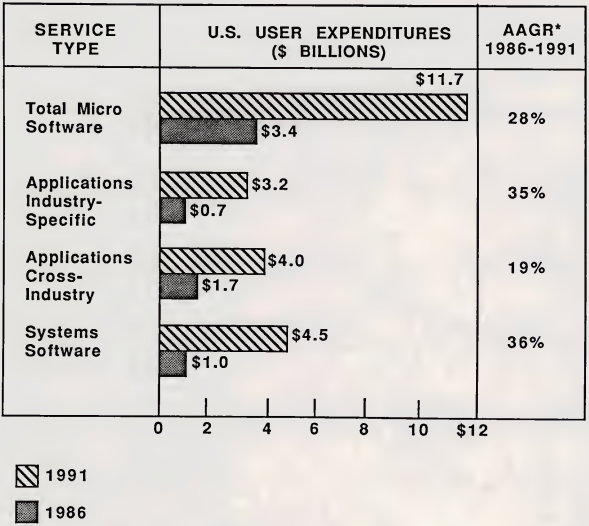
EXHIBIT II-16

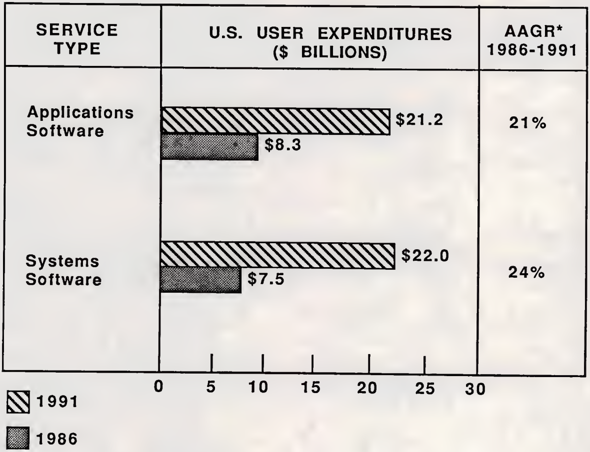
STRONG MICRO SOFTWARE MARKET
1986-1991



* AAGR = Average Annual Growth Rate

EXHIBIT II-13

SOFTWARE PRODUCTS MARKETS

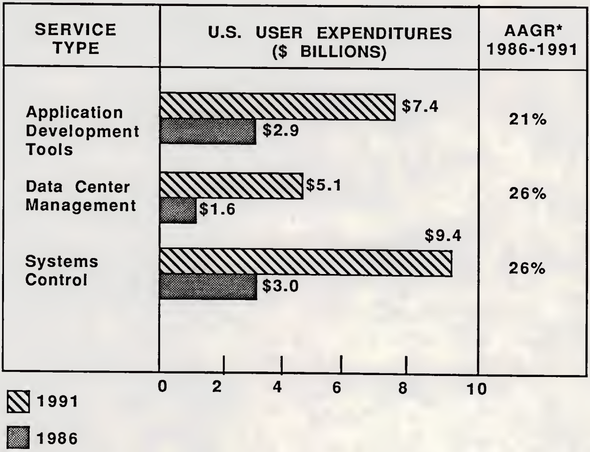


* AAGR = Average Annual Growth Rate

MSPA-OV S

EXHIBIT II-17

TOTAL SYSTEMS SOFTWARE MARKET BY SOFTWARE TYPE 1986-1991



* AAGR = Average Annual Growth Rate

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INDUSTRY DIRECTIONS AND FORECASTS, U.S.

Bonnie Digrius
Senior Consultant
INPUT

1 JJJJ BD S (s) 1

[illegible]

CONTENTS

RESEARCH BASE

Primary Research

- Vendor Interviews/Analysis
  - Over $10 Million
  - Under $10 Million

- Buyer Interviews/Analysis
  - IS Manager Surveys
  - Specialized Surveys

Secondary Research

FORECAST PARAMETERS

- Current Dollars
- GNP - Steady Growth
- Inflation Assumptions:
  - 1986: 2%
  - 1987: 3%
  - 1988: 4%
  - 1989: 5%
  - 1990: 6%
  - 1991: 6%

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MARKET FORECASTS

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INFORMATION SERVICES INDUSTRY: DRIVING FORCES

- Systems as Competitive Edge
- Implementation Bottleneck
- Saturation Towards End of Decade

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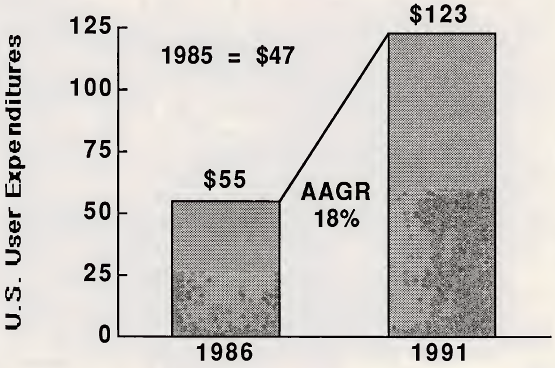
INFORMATION SERVICES MARKET
($ Billions)



7JJJBDJz(s)29

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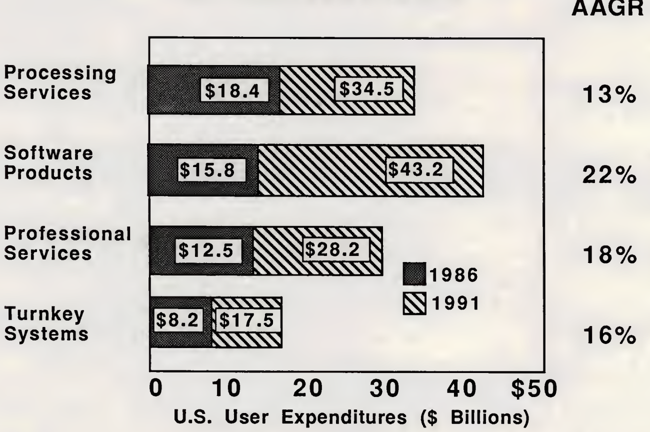
INFORMATION SERVICES INDUSTRY BY DELIVERY MODE



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"HOT" VERTICALS BY AAGR: USER EXPENDITURES

	$ Billions			PERCENT AAGR
	1985	1986	1991	
Medical	$1.7	$2.1	$5.9	23%
Discrete Manufacturing	$2.8	$3.4	$9.0	22%
Telecommunications	$0.6	$0.7	$1.9	22%

"HOT" VERTICALS BY 1991 SIZE: USER EXPENDITURES

	$ Billions			Percent AAGR
	1985	1986	1991	
Banking/Finance	$4.9	$5.8	$12.5	17%
Discrete Manufacturing	$2.8	$3.4	$9.0	22%
Medical	$1.7	$2.1	$5.9	23%

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PROCESSING/ NETWORK SERVICES

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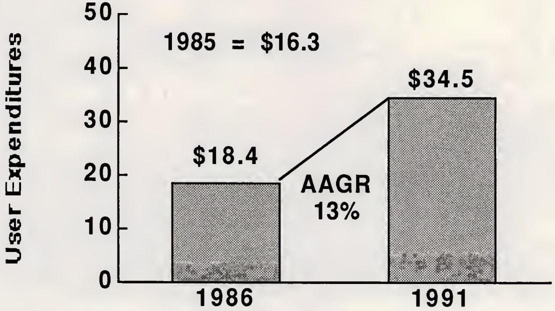
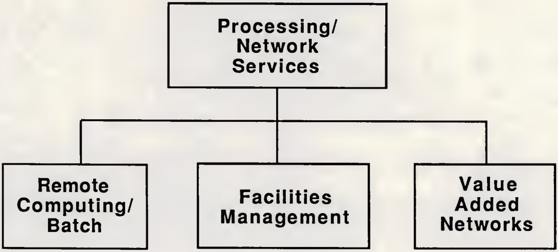
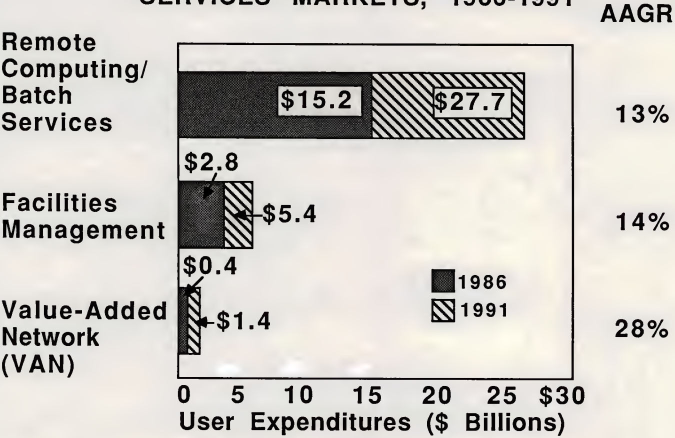
PROCESSING/NETWORK SERVICES MARKET
($ Billions)



PROCESSING/NETWORK SERVICES MARKETS



PROCESSING/NETWORK SERVICES MARKETS, 1986-1991



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PROCESSING/NETWORK SERVICES: DRIVING FORCES

- Decrease in Hardware Prices

+ EDI

+ On-Line Data Base Segment Strong

+ Niche Opportunities

SOFTWARE PRODUCTS

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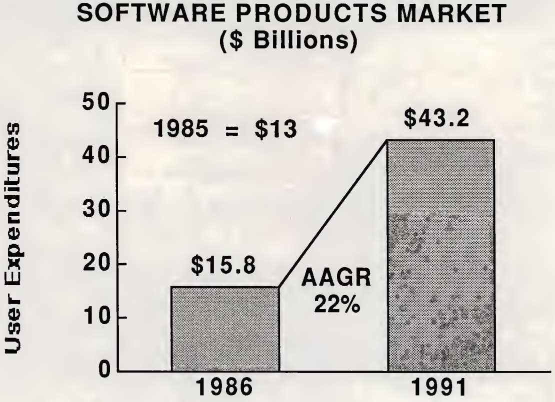

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SOFTWARE PRODUCTS MARKET: DRIVING FORCES

+ Hardware Base Increase

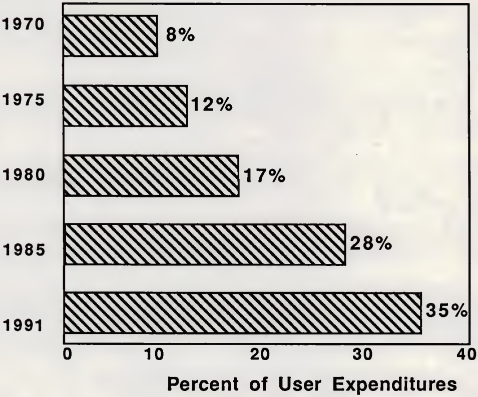
+ Drive to Connectivity

- Micro-Mainframe Confusion

+ Accelerated Obsolesence

JJJJ BD

SOFTWARE PRODUCTS PORTION OF INFORMATION SERVICES 1970-1991



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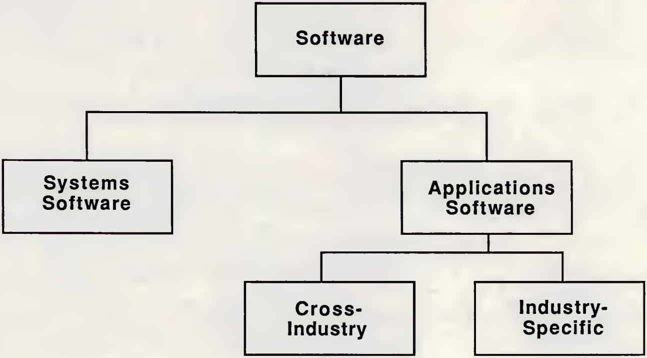
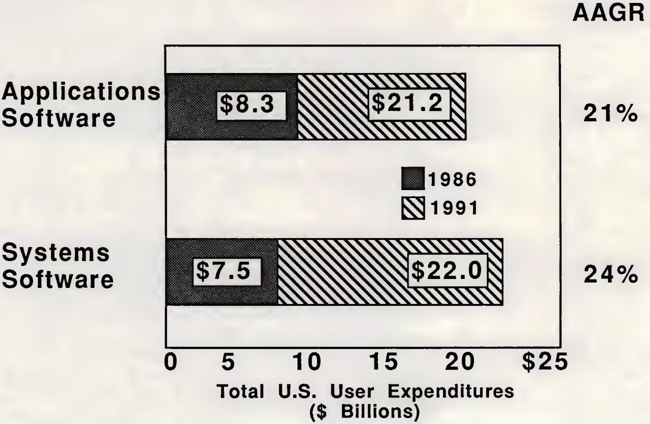
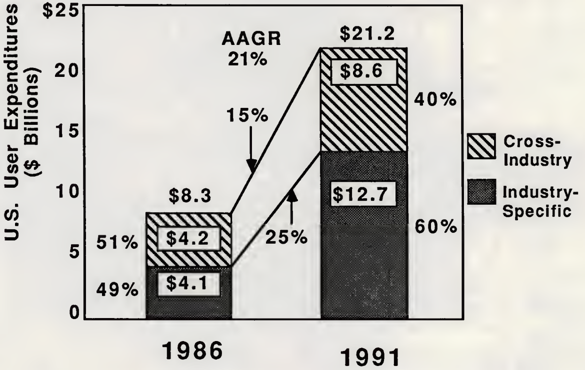
SOFTWARE MARKET STRUCTURE



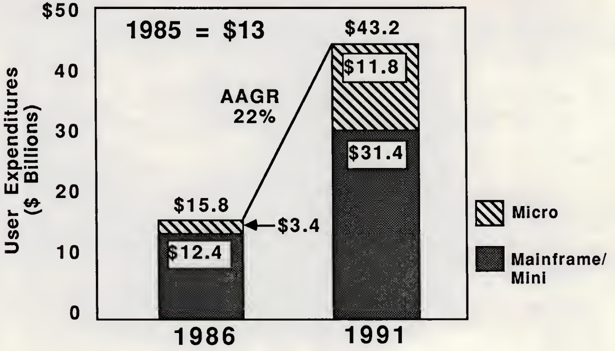
SOFTWARE PRODUCTS MARKETS



INDUSTRY-SPECIFIC APPLICATIONS SOFTWARE TO INCREASE SIGNIFICANTLY



SOFTWARE PRODUCTS MARKET FORECAST, MAINFRAME/MINI AND MICRO: 1986-1991



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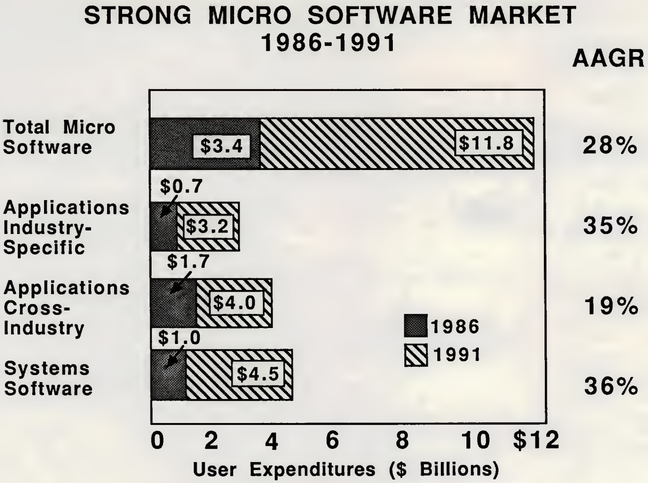

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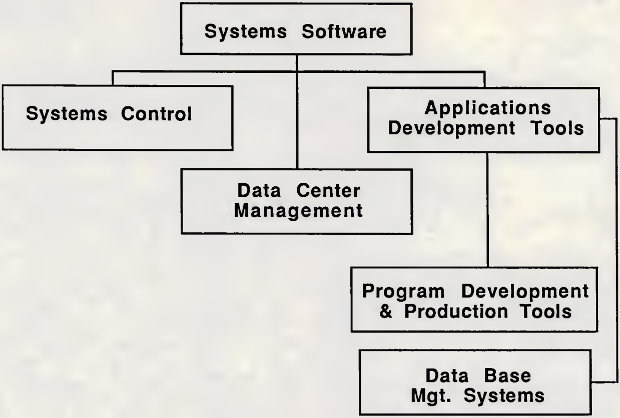
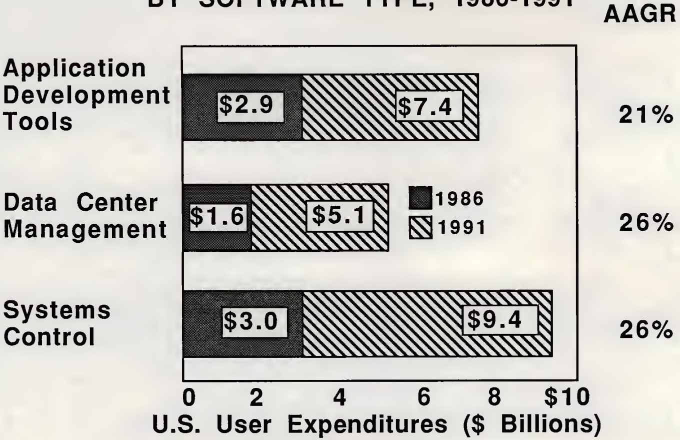
SYSTEMS SOFTWARE PRODUCTS MARKET STRUCTURE



25JJJJ BD S (s) 14

TOTAL SYSTEMS SOFTWARE MARKET BY SOFTWARE TYPE, 1986-1991



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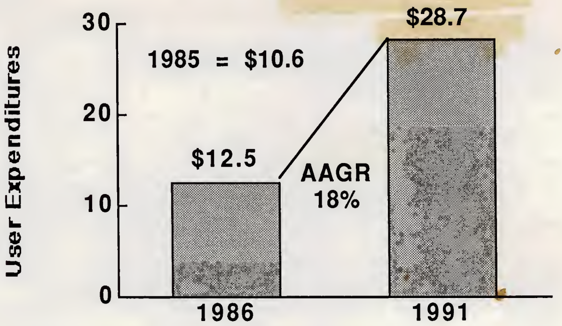
PROFESSIONAL SERVICES

[illegible]

PROFESSIONAL SERVICES MARKET
($ Billions)

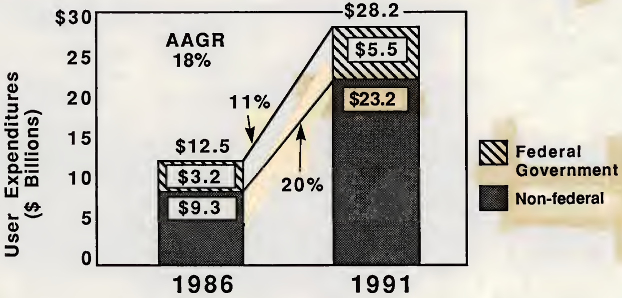


28JJJJBDJz(s)26

PROFESSIONAL SERVICES: DRIVING FORCES

- \- More User Willingness to Compromise on Uniqueness
- \+ More Software Product Related
- \+ More Focus on Internal Productivity
- \+ Increased Industry Specialization
- \+ Federal Government Vendors Becoming Commercial Vendors

FEDERAL GOVERNMENT/NON-FEDERAL PROFESSIONAL SERVICES MARKETS



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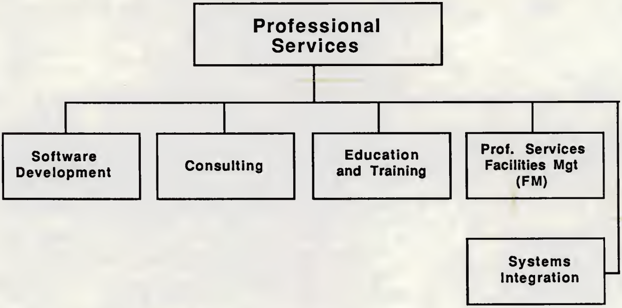
PROFESSIONAL SERVICES MARKET STRUCTURE



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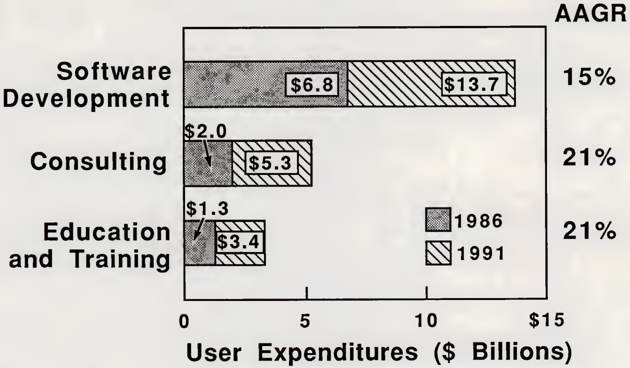
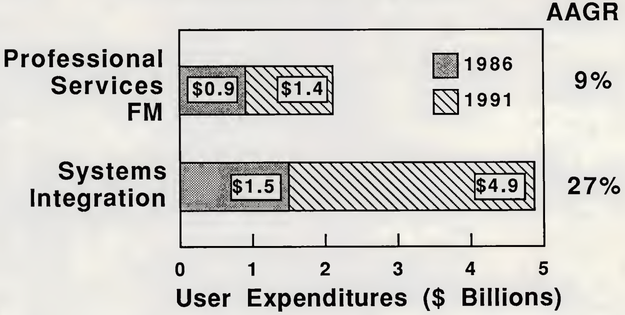
PROFESSIONAL SERVICES MARKET BY MODE



PROFESSIONAL SERVICES MARKET BY MODE



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TURNKEY SYSTEMS

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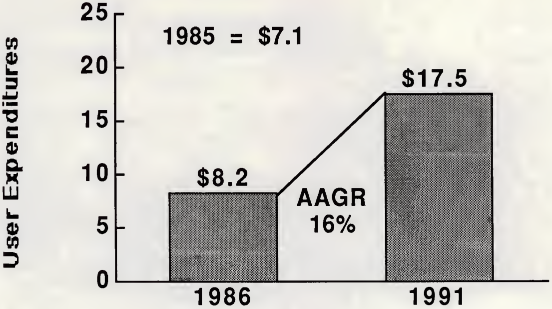
TURNKEY SYSTEMS MARKET
($ Billions)



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TURNKEY SYSTEMS: DRIVING FORCES

+ Increase in Range and Complexity of Computing Choices

+ Standard Hardware

- Rapid Obsolescence of Products

+ VAR Approach

JJJJ BD

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VENDORS MISPERCEIVING USER ATTITUDES

Buying Criteria	User Perception	Vendor Perception
Breadth of Applications Software	A	C
Flexibility of Applications Software	A	C
Scope of Software Not Reduced in Future Releases	A	C
Price	C	A

Buying Criteria

Quality ← User Perception

Vendor Perception → Price

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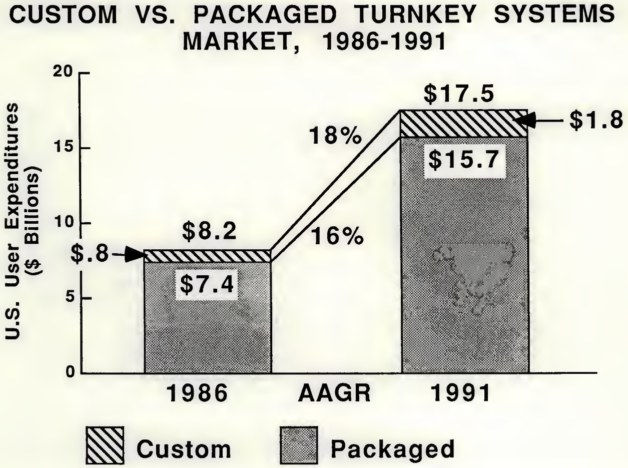

JJJJ BD J(s) 36b

CONCLUSIONS

- Slowdown Temporary
- Greater User Sophistication

INFORMATION SERVICES

- **Rate of Change Is Accelerating**

    - **Products**
    - **Technology**
    - **Market Strategy**
    - **Vendor Complexion**

EMERGING NETWORK DIRECTIONS

SERVICE	CHARACTERISTICS
Virtual Private/ Software Defined Networks	Cost-Effective, Shared Network with User Management Features
ISDN	Promises Universal Services, with Bandwidth on Demand
Fiber Optics	High Capacity Links, Currently Offered on a Bulk Basis
FM-SCA	Uses Satelites and FM Radio Station Subcarriers for Broadcast Data Applications
Mobile Satellite	Depending on FCC Approval of Specific Vendors, Will Offer Cellular-Like and Rural Services

JJJJ BD S15a (s)