

Turnkey Systems  
Forecasts, Issues, and Trends

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INPUT



Turnkey Systems/  
VARs

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Market Forecast &  
Trends

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## What's in a Name?

- Turnkey Systems
- VAR

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## End Product is the Same

- Equipment
  - Usually Standard from Mfg.
  - Occasional Integration of Foreign Disks, Controller, Memory, Terminals
- Standard Product Software
  - Primary Value-Added
- Customization

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## End Product is the Same

- Support
  - Installation/Conversion
  - Training
  - Software/Equipment Maintenance
- Delivery by a Single Vendor Who Takes Responsibility for Results

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## Differences Between System Integrators and Turnkey System Vendors

<u>Systems Integrators</u>	<u>Turnkey Systems</u>
Strategic Design & Consulting	Tactical Consulting
Multi-Year Effort	Single Year Time Span
High Level Complexity	Modest Complexity

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## Differences Between System Integrators and Turnkey System Vendors

<u>Systems Integration</u>	<u>Turnkey Systems</u>
SW Development	Software Products
High Cost	Moderate Cost
Large Project Management Skills	

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## Similarities Between System Integrators and Turnkey Systems Vendors

Prime Contractors Role

Multiple Vendors Involved

Equipment Delivery

Software Customization

Installation, Training, and Support

Post-Installation Support

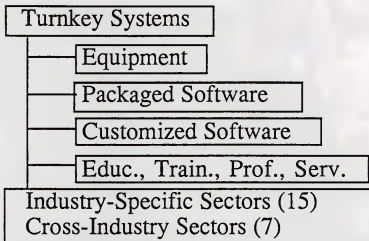
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## Turnkey Systems Market Structure



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## Market Size & Growth

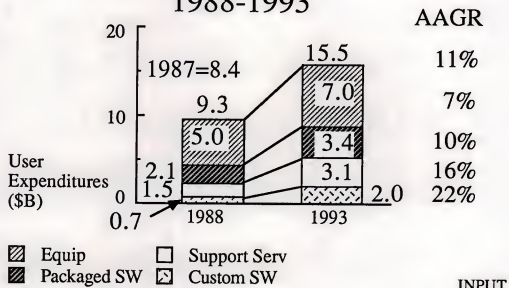
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## Turnkey Systems Market Forecast— 1988-1993



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## Platform Types: Turnkey Systems Equipment

	Total Equipment Shipped (Percent)	
	1987	1993 (Est.)
Mainframe	12	5
Minicomputer	63	35
Micro/ Workstation	25	60

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## Selected Computer Systems Vendors Turnkey Products

- IBM's SolutionPacs
- IBM's AS/400 Office
- DEC's Solution Systems
- Unisys' Purchase of Convergent,  
a Leading VAR

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# Market Directions & Trends

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## Market Directions (Trends and Issues)

- Movement Away from Selling Proprietary Hardware
- Movement Toward Proprietary Software and Support Services
- Value-Added No Longer in the Hardware

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## Market Directions (Trends and Issues)

- Unbundling of Hardware and Software by the VAR
- Higher Growth and Margin Potential in Customized Software
- Growing Use of VARs by Software Companies

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## Market Directions (Trends and Issues)

- Large and Small Systems Vendors  
Seek Out VARs as Distribution Channel
- Increasing Channel Conflict
- Rise of the Agent/Broker
- Cross-Matching for Additional  
Software Products

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## Market Directions (Trends and Issues)

- Stress on Support Services
- VARs Acting as the MIS Manager for their End-User Customer—Including On-Site Facilities Management
- Increasing Emphasis on VAR Training

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## Turnkey Systems Market— Driving Forces

- Micro-Based Solutions
- Local/Vertical Market Focus
- Customization

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## Turnkey Systems Market— Driving Forces

- Support Revenue Growth
- Software Applications Required
- Account Control (at Low End of Spectrum)

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## Turnkey Systems Market— Inhibiting Forces

- Shift to Software Vendor Role
- Hardware Vendors Writing Software
- Declining Hardware Margins/Prices
- Hardware Vendors Selling Direct
- Applications Are too General

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## Turnkey Systems Market— Inhibiting Forces

- Prime Contractor Requirements: Cash Flow, Expenses and Resources
- Competition from Professional Services & Systems Integration Firms
- Need for a Regional/National Marketing Presence

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# Leading Turnkey/VAR Companies

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## Major Vendors' Shares of U.S. Turnkey Systems Market—1987(Private and Public)

Company Name	1987 Revenue (\$ Millions)	Market Share (Percent)
Intergraph	628	7
Schlumberger	468	5
McDonnell Douglas	224	3

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## Major Vendors' Shares of U.S. Turnkey Systems Market—1987(Private and Public)

Company Name	1987 Revenue (\$ Millions)	Market Share (Percent)
Compugraphics	220	3
Auto. Data Proc.	195	2
ISC Systems Corp.	146	2

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**Major Vendors' Shares of  
U.S. Turnkey Systems Market—1987**  
(Private and Public)

Company Name	1987 Revenue (\$ Millions)	
Xerox Corp.	140	2
Reynolds & Reynolds Co.	138	2

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1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The text notes that records should be kept for a minimum of seven years and should be accessible to authorized personnel at all times.

2. The second part of the document outlines the specific requirements for record-keeping. It states that all transactions must be recorded in a clear and concise manner, using a standardized format. This includes recording the date, amount, and description of each transaction. The text also requires that records be kept in a secure and accessible location, and that they be protected from unauthorized access and destruction.

3. The third part of the document discusses the role of internal controls in ensuring the accuracy and reliability of financial records. It notes that internal controls should be designed to prevent errors and fraud, and to ensure that all transactions are properly recorded and reported. The text emphasizes that internal controls should be regularly reviewed and updated to reflect changes in the business environment and to address any weaknesses identified during the review process.

4. The fourth part of the document discusses the importance of transparency and accountability in financial reporting. It notes that financial statements should be prepared in accordance with generally accepted accounting principles (GAAP) and should be audited by an independent third party. The text emphasizes that transparency and accountability are essential for the confidence of investors and other stakeholders in the financial system.

5. The fifth part of the document discusses the role of the regulatory authorities in ensuring the integrity and stability of the financial system. It notes that the regulatory authorities have the responsibility to monitor and enforce the rules and regulations governing financial institutions and markets. The text emphasizes that the regulatory authorities should work closely with industry participants to identify and address any risks to the financial system.

6. The sixth part of the document discusses the importance of ongoing education and training for financial professionals. It notes that the financial industry is constantly evolving, and that financial professionals must stay up-to-date on the latest developments and best practices. The text emphasizes that ongoing education and training are essential for the success and integrity of the financial system.

**Major Vendors' Shares of  
U.S. Turnkey Systems Market—1987**  
(Private and Public)

Company Name	1987 Revenue (\$ Millions)	Market Share (Percent)
Bolt, Beranek & Newman, Inc.	136	2
Convergent Sys.	130	2

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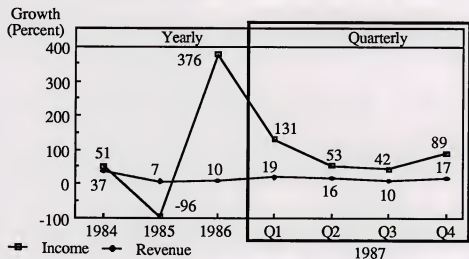
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## Public Turnkey Systems Vendors



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## Growth Leaders: Public Turnkey Systems Companies—1987 (Calendar)

Company Name	1987 Total Revenue (\$ Millions)	86-87 Revenue Growth (Percent)
Cerner	34	94
Interleaf	52	62
C3	109	49

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## Growth Leaders: Public Turnkey Systems Companies—1987 (Calendar)

Company Name	1987 Total Revenue (\$ Millions)	86-87 Revenue Growth (Percent)
Comptek Research	44	36
ASK Computer	116	35
Reynolds & Reynolds	572	26

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## Growth Leaders: Public Turnkey Systems Companies—1987 (Calendar)

Company Name	1987 Total Revenue (\$ Millions)	86-87 Revenue Growth (Percent)
HBO & Co.	175	13
Auto-Tool Tech.	76	22
Barrister Info. Sys.	38	14

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## Growth Leaders: Public Turnkey Systems Companies—1987 (Calendar)

Company Name	1987 Total Revenue (\$ Millions)	86-87 Revenue Growth (Percent)
Shared Medical	391	6
National Computer	209	4

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# Vendor Strategies

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## Expanding Services

Provide New/Additional Services

- Consulting
- Customized Programming
- Additional Training/Education
- Data-Center Management

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## Vendor Strategies

Increase Typical System Size/Price

- Enhance Product Offering

- Sell Larger Systems

Expand Industry Coverage

- Related Opportunities within Current Industry

- New/Additions Industry Markets

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## Vendor Strategies

### System Software Developers

- VAR Internal Use
  - Development Platforms
  - New Functionality
- VAR End User Sales
  - Expanded Base
  - New Features

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## Vendor Strategies

### Third-Party Application Software Developers

- Cross-Matching
  - Complements VAR Product
  - Opens New Prospects
- Cross-Industry
  - Adds Value
  - Enhances Relationship

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## Successful VAR Strategies by Hardware/Software Vendors

Vendor	Product
Autodesk	PC/Workstation CAD Software
Altos	UNIX-Based Microcomputer Systems
Ultimate (Also a VAR)	PICK-OS

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## Successful VAR Strategies by Hardware/Software Vendors

Vendor	Product
Apollo	Scientific Workstations- CAE Market
Sun Microsystems	Scientific/Commercial Workstations
Compaq Computer	DOS/OS2 Desktop Computers

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## Successful VAR Strategies by Hardware/Software Vendors

Vendor	Product
Seagate Tech.	Disk Drives
Informix	DBMS Software for UNIX
Timberlane Software Corp.	Application Software for Construction Industry

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## Successful VAR Strategies by Hardware/Software Vendors

Vendor	Product
Apple Computer	Macintosh
Oracle	Database Management Systems Software for Multi-Hardware, Operating Systems Environments

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# Leading Turnkey/VAR Applications

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## Most Successful Applications Areas for Turnkey/VARs

- CAD/CAM/CAE
- Automotive Dealer and  
Distribution Systems
- Health Care/Medical Systems
- Banking/Finance Processing  
Applications

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## Most Successful Applications Areas for Turnkey/VARs

- Telecommunications
- Legal Applications
- MRP Systems

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## Principal Turnkey Systems Industry-Specific Markets—1987

Market	Size (\$M)	Projected 5-Yr AAGR (Percent)
Discrete Manufacturing	1,861	10
Banking and Finance	741	11
Medical	633	10

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## Principal Turnkey Systems Industry-Specific Markets—1987

Market	Size (\$M)	Projected 5-Yr AAGR (Percent)
Distribution	601	12
Services	414	9
Federal Gov.	388	9

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## Principal Cross-Industry Applications Markets—1987

Market	Size (\$M)	Projected 5-Yr AAGR (Percent)
Other (Word Processing, Desktop Publishing, and Graphics Applic.)	1,208	5
Accounting	414	4

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## Principal Cross-Industry Applications Markets—1987

Market	Size (\$M)	Projected 5-Yr AAGR (Percent)
Eng./Scientific	354	7
Planning & Analysis	284	5
Human Resources	235	5
Education & Training	149	5

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## Conclusions/Recommendations

- Become a Multi-Regional Turnkey Systems/VAR
- Increase Content of Industry-Specific Application Software
- Resell Proprietary Applications
- Increase Repeat Business to 50-60% Range

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## Conclusions/Recommendations

- Look to Installed Base as a Key Asset
- Emphasize Value-Added Services Such as Software Maintenance, Consulting, Education, and Training
- Stress Hardware and Software Add-Ons

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## Conclusions/Recommendations

- Increase Emphasis on Follow-On Products
- Develop Strategic Alliances
- Take Advantage of New Applications Development Tools

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## Conclusions/Recommendations

- Explore UNIX-Based Hardware Platforms
- Focus on On-Going Revenue Sources
- Develop Applications Around Industry Standards
- Increase Emphasis on Network Integration

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