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Business
Improvement
Services



Your Bridge to the Future

Federal Supply Service

Authorized Federal Supply
Schedule Price List

Contract #GS-10F-0233J

September 15, 1999
to
September 14, 2004



Technology Futures, Inc.

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Technology Management and Forecasting the Future are becoming watchwords in government. It is increasingly important to plan for the future, not just for today.

For more than two decades, Technology Futures, Inc. (TFI) has been providing top quality consulting, research, forecasting, technology management, and other management services to a wide assortment of private companies and government agencies. Federal government agencies served include the National Science Foundation, the Central Intelligence Agency, the National Security Agency, the National Aeronautics and Space Administration, the U. S. Geological Survey, the Department of Energy, and all of the Armed Forces.

TFI's ability to serve its government clients effectively and economically is enhanced by its certification as an official Management, Organization, and Business Improvement Service (MOBIS) provider. This ability is further enhanced by the fact that TFI has offices in six locations throughout the United States, including Washington, D.C., and two offices in Brazil.

TABLE OF CONTENTS

I.	Overview		4
II.	Customer Information		5
III.	Consultation Services	SIN 874-1	6–8
IV.	Facilitation Services	SIN 874-2	9
V.	Survey Services	SIN 874-3	10
VI.	Training Services	SIN 874-4	11–12
	A.	Forecasting, Planning and Managing Technology	
	B.	Telecommunications Trends: Technologies and Markets	
	C.	Technology as a Strategic Asset	
	D.	Effective Technology Transfer	
	E.	Identifying and Evaluating Breakthrough Technologies	
	F.	Quantitative Technology/Market Forecasting	
	G.	Technology Forecasting in the Telecom Industry	
	H.	Leadership in the Information Age	
	I.	Entrepreneurship in Large Organizations	
	J.	Technology Depreciation Analysis	
	K.	Distance Education	
VII.	Support Products	SIN 874-5	13–17
	A.	Comparison of Economic Life Techniques	
	B.	Telecommunications Access Technologies: Overview and Competitive Assessment	
	C.	Wireless vs. Wireline for Voice Services: Forecasts and Impacts	
	D.	Communication Technology Update	
	E.	Transforming the Local Exchange Network: Analyses and Forecasts of Technology Change	
	F.	Advanced Video Services: Analysis and Forecasts for Terrestrial Service Providers	
	G.	Computer Technology Trends: Analysis and Forecasts	
	H.	Wireless and Cable Voice Services	
	I.	Depreciation Lives for Telecommunications Equipment: Review and Update	
	J.	Transforming the Local Exchange Network: Analyses and Forecasts of Technology Change	
	K.	Introduction to Technology Market Forecasting	
	L.	Technology Forecasting: An Aid to Effective Technology Management	
	M.	Practical Technology Forecasting	
	N.	Personal Communications Services	
	O.	New Telecom Services & the Public Telephone Network	
	P.	Telecom for Television/Advanced Television	
	Q.	Video Communications	
	R.	Local Area Network Interconnection	
	S.	Interactive Multimedia & Telecommunications	
	T.	Computer-Based Imaging & Telecommunications	
	U.	A Facsimile of the Future	
VIII.	Price List		18–20
IX.	Ordering Instructions and Guidelines		21

OVERVIEW



Since its formation in 1978, Technology Futures, Inc. has been providing top quality consulting, research, forecasting, technology management, training, and publication services to a wide variety of clients, including half of the 50 largest companies in the country. In the government area, we have done work for the

U.S. Geological Survey, the National Security Agency, the CIA, NIMA, DOD Office of Advance Technology, National Technology Information Service, and all of the Armed Forces. Our clients have also included consortia such as the Gas Research Institute, the Edison Electric Institute, and the Electric Power Research Institute. In the international arena, we have served clients in England, France, Germany, Brazil, Mexico, Canada, India, Korea, and the Republic of China. The quality of our services is indicated by the fact that many of our clients have been active clients for well over a decade.

TFI's organization is based on a permanent staff that can be expanded by qualified associated individuals and organizations to meet special requirements as they arise. This approach allows us to meet the broad range of our clients' special needs, while allowing us to maintain our quality and senior level involvement. The permanent staff of 25 plans and manages service projects, maintains close client contact, and provides continuing project responsibility. Approximately 50 associates are available to assist TFI when their skills are appropriate for a given project. These associates possess talent, experience, and insight in a wide variety of areas including economics, computer software and hardware, organizational development, engineering, public relations, library science, risk management, demography, and subject-matter expertise. These associates are people who have worked for TFI on previous projects, and who have proven their ability and sense of responsibility and have a special relationship with TFI.

In more than 20 years of experience, TFI has developed an extensive toolkit of practical, proven technology forecasting, planning, and management tools. We tailor these tools to meet the specific needs and desires of each of our clients. Moreover, we pride ourselves in transferring the capability of using these tools to our clients.

CUSTOMER INFORMATION

- 1a. Authorized Special Item Numbers (SIN):
 - SIN 874-1 Consultation Services (page 6–7)
 - SIN 874-2 Facilitation Services (page 8-9)
 - SIN 874-3 Survey Services (page 10)
 - SIN 874-4 Training Services (page 11-12)
 - SIN 874-5 Support Products (page 13-17)
- 1b. Price List (page 18-20)
 2. Maximum Order \$1,000,000
 3. Minimum Order \$300
 4. Geographic Coverage: Worldwide
 5. Point of Production: Corporate Office in Austin Texas
 6. Discount from List Prices: SIN 874-4 Training Services
Quantity discounts for:
 - 16-19 Participants \$300
 - 20-24, 17% discount
 - 25-34, 28% discount
 - 35+, 39% discount
 7. Quantity Discounts: Purchases in excess of \$1,000,000 are negotiable for additional discounts
 8. Prompt Payment Terms: None
 - 9a. Government Commercial Credit Cards under \$2,500 accepted
 - 9b. N/A
 10. Foreign Items: N/A
 - 11a. Time of Delivery: Determined by Individual Order
 - 11b. Expedited Delivery: Negotiated by individual Task Orders
 - 11c. Overnight Delivery: Negotiated by individual Task Orders
 - 11d. Urgent Requirements: Negotiated by individual Task Orders
 12. F.O.B. Points: Destination
 13. Ordering Address: Technology Futures Inc.
13740 Research Blvd., Bldg. C
Austin, Texas 78750
(800) 835-3887
(512) 258-8898
Fax: (512) 258-8898
E-mail: info@tfi.com
www.tfi.com
 14. Payment Address: Same as Ordering Address
 15. Warranty Provisions: N/A
 16. Export Packing Charges: Negotiated by individual Task Orders
 17. N/A

CONSULTATION SERVICES SIN 874-1

TFI's consulting services fall into six general areas: Telecommunications, Technology Management, Strategic Planning, Forecasting, Strategic Market Research, and Financial Analysis.

Telecommunications

TFI provides information, forecasts, analyses, and strategic insights to support decisions involving communications technologies, including voice, video, and data applications. In terms of talent, experience, and proven track record, TFI is uniquely qualified to assist forward-thinking organizations to operate effectively in the rapidly changing telecom environment. For 15 years, TFI has conducted research for the Telecommunications Technology Forecasting Group (TTFG), an organization comprised of the major North American local exchange carriers. Recent research projects include subjects such as advanced video services, computer technology, wireless and cable voice services, migration to a ATM/IP backbone, and the adoption of fiber, HDSL, SONET, and ATM in the local exchange network.

TFI's Telecommunications services assist organizations by:

- Identifying, forecasting, and evaluating advances in telecom technologies.
- Developing strategic technology, market, and financial plans.
- Providing outside review of plans and forecasts.
- Planning and supervising the set-up of advanced communications systems.

Technology Management

To take full advantage of both emerging and existing technologies, a carefully crafted technology management program is essential to the long-term success of any large organization. TFI's forecasting proficiency provides us with a unique capability to assist our clients in developing and implementing strong technology management programs.

TFI's Technology Management services can assist in:

- Constructing technology development roadmaps.
- Promoting technology transfer within and outside the organization.
- Developing new technology deployment strategies.
- Allocating R&D resources.
- Ensuring a match between technology and operating strategies.

Strategic Planning

To be successful in today's operating environment, organizations must be able to employ their resources in the most effective way to achieve both short- and long-term objectives. To accomplish this, they must carefully analyze the available opportunities, select the ones that are most consistent with their capabilities and objectives, determine what additional resources will be needed, and develop a plan for optimal application of all available resources. This process is commonly called strategic planning, and it has been an area of particular interest to TFI since 1978. Because planning is always based on projections about the future, TFI's experience in technology, market, financial, organization development, and business environment forecasting provides us with a powerful tool to assist in strategic planning.

TFI's Strategic Planning services can assist organizations to:

- Analyze changing technical, social, and economic factors to uncover emerging opportunities.
- Integrate these opportunities into strategic plans.
- Identify mismatches between an organization's projects, resources, and culture and its strategic goals.
- Initiate programs to correct these mismatches.

CONSULTATION SERVICES

SIN 874-1

Forecasting

The rapid pace of change in today's operational environment magnifies the importance of quality forecasts. To prosper in this environment, one must be able to project future developments in an organized and timely manner. Over 20 years of forecasting experience has made TFI one of the world's premier practitioners in this field. We work closely with our clients to integrate their subject matter expertise with our forecasting capability. This ensures the forecast's relevance, validity, and acceptance, as well as enhances the client's own forecasting capabilities.

TFI's Forecasting services enable clients to:

- Identify and evaluate new technology-based products and services.
- Project advances in technology.
- Define organizational needs for new technologies.
- Project adoption rates for new technologies.
- Formulate strategic models of future developments.
- Estimate economic lives for technology investments.

Strategic Market Research

Strategic market research assists organizations in taking advantage of fundamental shifts in technologies, markets, and client needs and desires. TFI utilizes analytical techniques, expert opinion, and customer interviews to provide a rigorous, methods-based vision of future opportunities.

TFI's Strategic Market Research services can help organizations to:

- Identify and evaluate emerging organizational needs.
- Assess potential requirements for new technologies.
- Project the rate at which new technologies will be adopted.
- Assist in developing plans for entering new areas of technology.
- Assist in planning new uses of existing technologies.

Financial Analysis

Decisions related to the deployment, acquisition, and management of technology often revolve around financial projections. Such projections will necessarily include explicit or implicit assumptions and forecasts about the future as it relates to costs, prices, demand, market share, industry structure, risk, etc. Thus, such projections boil down to a set of forecasts of technologies, markets, competitors, and their interrelationships. TFI's forecasting experience assures that financial projections—of both new and existing technology—reflect future realities and opportunities.

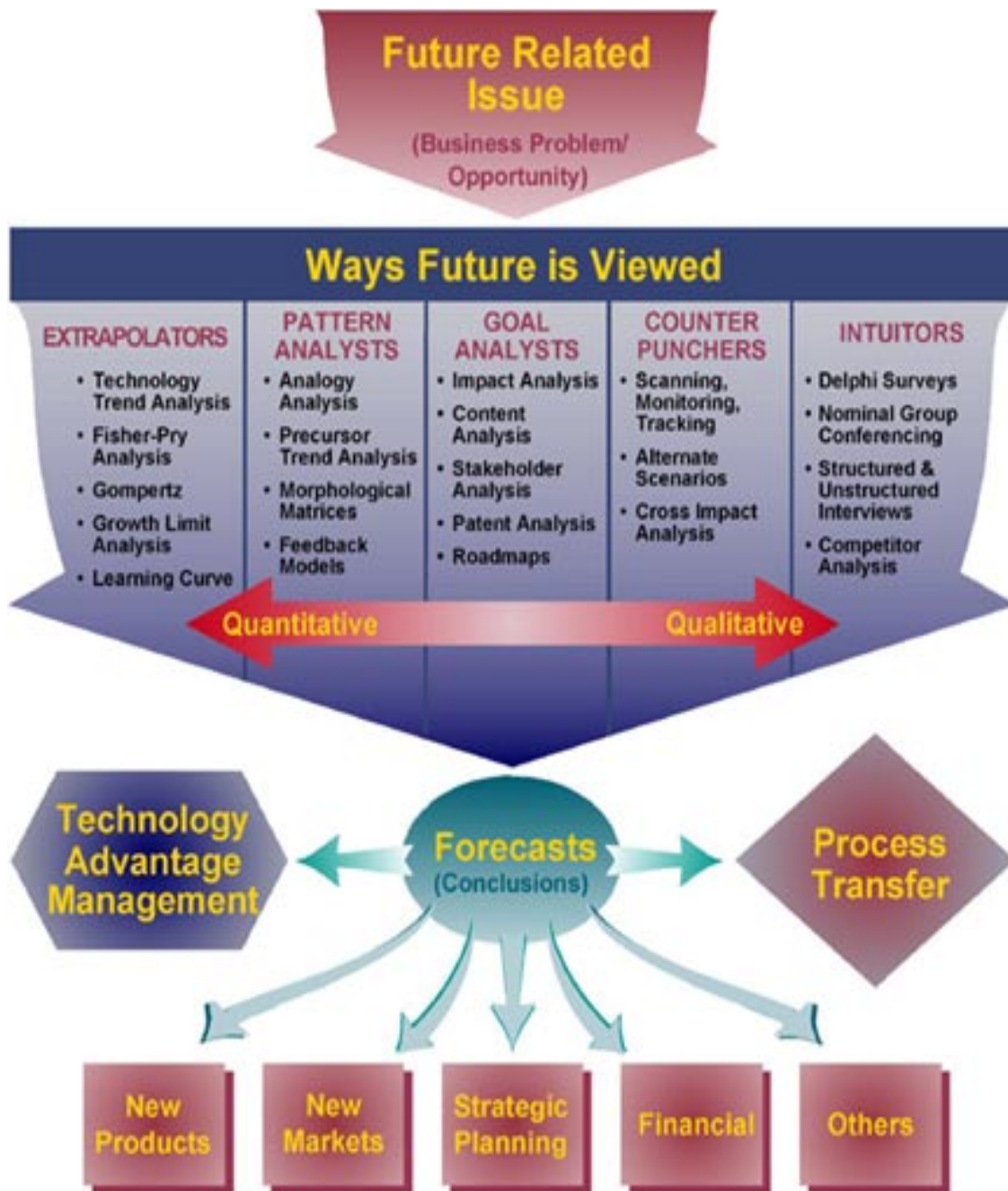
TFI's Financial Analysis services can assist organizations in:

- Examining the financial implications of technology decisions.
- Developing forecast-based cash flow models for technology decisions.
- Formulating financially sound technology replacement strategies.
- Determining the residual value and economic lives of existing assets.
- Communicating technology/financial realities to key decision-makers.

CONSULTATION SERVICES

SIN 874-1

Technology Strategic Analysis



FACILITATION SERVICES

SIN 874-2

Since its establishment in 1978, TFI has been actively involved in assisting a wide range of clients in coordinating the activities of various individuals and groups within organizations and between organizations. These clients have included both private companies and government agencies. In the course of offering these facilitation services, TFI has adopted or developed a variety of proven facilitation techniques and has gained experience in the practical application of these techniques in widely varying groups and circumstances. The techniques employed by TFI include, but are not limited to, Impact Analysis, Nominal Group Conferencing, Stakeholder Analysis, Morphological Structuring, Cross Impact Analysis, and Focus Groups.

A proprietary approach to planning developed by TFI—Technology Advantage Management—has proven to be particularly useful in integrating various separate activities into a unified effort. The particular techniques employed in a given facilitation project depend on the individuals and organizations involved, the objectives of the project, past experiences of participants, time available, and a host of project particulars. However, experience has demonstrated that successful projects depend on a clear definition of objectives, continuing interest and involvement of participants, feelings of trust and confidence, and a commitment by all involved to the highest standard of excellence. The choice of techniques and decisions on how the techniques will be employed depends on how these requirements can best be met.

The clients utilizing TFI's facilitation services have varied greatly: federal government agencies, electric utilities, chemical manufacturing companies, universities, research institutes, telecommunications companies, and consumer product companies to name a few. The objectives of these clients in using TFI's facilitation services have been as varied as the clients themselves.

Project objectives have included:

- Forming new organizations
- Gaining coordination and cooperation between various internal groups
- Defining R&D programs
- Improving promotion policies
- Promoting new cultural norms
- Revitalizing organization professionals
- Improving internal communications
- Clarifying organizational missions and goals
- Responding to competitive threats

The experience of the TFI staff, the availability of a wide range of proven tools, and the existence of a strong support staff gives a very strong capability to provide outstanding facilitation services to its clients.

SURVEY SERVICES

SIN 874-3

Since its establishment in 1978, TFI has often been called upon by its clients to provide survey services, either as a separate project or as part of a larger project. These surveys have varied widely in purpose, nature, and extent. They have included oral, written, and electronic input. They have involved one way input and interactive, Delphi-type surveys. Clients have included government agencies, consortia, industrial organizations, and commercial businesses.

Typically, these services include:

- Definition of survey objectives
- Developing the structure for the survey
- Conducting the survey
- Recording and organizing survey data
- Analyzing the results of the survey
- Presenting the results of the survey and their significance to organization management

TFI has software tools in place to enhance its ability to record, collate, and analyze survey input quickly, accurately, and economically. TFI's experience in the planning, conduct, and analysis of surveys enables it to provide its clients with superior survey services.

TRAINING SERVICES

SIN 874-4

Since its establishment in 1978, training and education services have been a preeminent activity of TFI. During this period, TFI has conducted several hundred public workshops and seminars on a wide range of forecasting, planning, and management subjects. TFI has also presented more than several hundred in-house sessions for various companies, institutions, and government agencies. The quality of these in-house sessions is indicated by the fact that many organizations have asked us to return over and over again.

There are two models we typically use to assist organizations in enhancing their management capabilities. The first model begins with the conduct of a tailored in-house seminar in appropriate subjects for selected personnel. These seminars are typically followed by assistance in the practical application of these techniques to a particular project. The second model involves our assisting organizational personnel in the conduct of a forecast or related activity. In this model, participants are instructed in the use of techniques as the project progresses. Basically, this model employs a “learn by doing” methodology. In our experience, we have found both of these models to be effective.

TFI’s most popular in-house courses are ones based on our three most popular public workshops.

Forecasting, Planning & Managing Technology

This is a practical three-day workshop for managers and professionals committed to transforming advances in technology into meaningful business advantage. It is a combination of formal instruction, group discussion, and practical exercises designed to teach people how to conduct and assess technology forecasts and to integrate them into organizational planning. The approach is practical with a strategic orientation. Topics include proven methodologies—such as trend analysis, expert opinion, and substitution analysis—that give participants insights into technological changes and the environment in which they occur. This seminar is founded on our comprehensive knowledge and experience and is not offered by any other organization.

Telecom Trends: Markets and Technologies

This seminar is designed to give both the layperson and the telecom professional an update of emerging technology and related business trends and events. The material represents forecasts developed by TFI, as well as other respected research organizations. Subjects covered include wireless communications, local exchange networks, bundled services, fiber cable, SONET, ATM, xDSL, wireless local loops, multimedia, the Internet, voice over IP, e-commerce, and a variety of other telecom technologies. This seminar will not only present valid forecasts of future developments in these areas, but will also examine the driving forces behind these developments and their implications for seminar participants.

Technology as a Strategic Asset

This seminar is designed to provide participants with modern methods for identifying and evaluating emerging technologies that could provide their organizations with significant operational advantage or that could, in the hands of the competition, cause them inestimable disadvantage and grief. Based on a new concept developed by TFI for taking full advantage of new technology, Technology Advantage Management (TAM), the seminar presents techniques for balancing requirement pull, technology push, and competitor clash. Participants will learn first-hand how to develop practical, comprehensive strategic and operational plans; how to examine how well current programs, resources, and culture support these plans; and how to convert these plans into effective operational programs.

TRAINING SERVICES

SIN 874-4

Effective Technology Transfer

This two-day seminar presents practical, proven techniques for transferring new technology developments within an organization and between organizations.

Identifying and Evaluating Breakthrough Technologies

This three-day workshop presents approaches and techniques for uncovering truly revolutionary advances in technology and for evaluating how an organization can effectively benefit from those breakthroughs.

Quantitative Technology/Market Forecasting

This two-day workshop teaches techniques for making quantitative technology/marketing forecasts using computer programs.

Technology Forecasting in the Telecom Industry

This three-day workshop combines instruction in technology forecasting and planning with a review of recent TFI forecasts of emerging telecommunications technologies and market realities.

Leadership in the Information Age

This two-day seminar examines how leadership principles and practices have changed with the emergence of Information Age technologies and procedures.

Entrepreneurship in Large Organizations

This two-day workshop presents methods by which the successful principles of entrepreneurship can be translated into a large business environment.

Technology Depreciation Analysis

This two-day workshop teaches fiscally sound methods and techniques for analyzing capital equipment depreciation.

Distance Education

This two-day seminar presents effective, tested techniques for providing quality education through the use of modern distance education techniques.

All TFI in-house seminars are available off-the-shelf, or they can be tailored to meet the special needs and requirements of the individual client or organization. In-house seminars are typically conducted in a three-day format; however, a two-day abbreviated format is also available. The five-day format is more detailed, and additional time is available for practical applications of the techniques covered in the session. In addition, one day and one-half day Executive Overviews of any of these seminars are available. An outline of each format is available upon request.

Our clients have found that in-house seminars offer several special advantages:

- They allow all of the people involved in technology in the organization to have a common understanding of terminology and methods.
- They allow concentration on subjects that are of specific interest to the organization.
- They minimize the problem of confidentiality.
- They are normally economically attractive on a per-participant basis.

SUPPORT PRODUCTS

SIN 874-5

Technology Futures, Inc. provides its clients with a number of proprietary publications. Some, but not all, of these are used to support other TFI services such as training and facilitation.

Telecommunications Technology Forecasting Group (TTFG) was established to promote the understanding and use of forecasting to predict and support the continuing evolution of the public telecommunications network. Many of the publications produced by Technology Futures, Inc. were commissioned by this industry consortium to quantify the demand for new telecommunications services and the impact on the public telecommunications network. TTFG member companies include Bell Atlantic, Bell Canada, BellSouth Telecommunications, Cincinnati Bell Telephone, GTE TELOPS, SBC Communications, Sprint-LTD, and U S WEST Communications.

Comparison of Economic Life Techniques

Stephen L. Barreca

Traditional approaches to estimating the useful lives of mass property have proven ineffective. Recently, new approaches have been developed and are in use; because of their relative newness, however, empirical evidence of their effectiveness is scarce. The purpose of this study is to assess and document the effectiveness of three commonly used life analysis techniques—traditional mortality, substitution, and combined obsolescence.

Published May 1999, Bound Softcover, 74 pages, ISBN 1-884154-12-3, Sponsored by the TTFG*

Telecommunications Access Technologies: Overview and Competitive Assessment

Ray L. Hodges

This latest report from Technology Futures provides a good, concise overview of the competitive access technologies that will impact the local exchange network. The competing technologies—terrestrial wireless, satellite, or cable—are simply more economical than the ILECs' circuit switched, copper-based network for multimedia services and will become more economical for voice as their market share declines. The ILECs' natural response to their competition is to expand beyond their franchise boundaries as full-service competitive local exchange carriers or by acquisitions. This, in turn, results in more competition for the other ILECs.

Published March 1999, Bound Softcover, 113 pages, ISBN 1-884154-11-3, Sponsored by the TTFG*

Wireless vs. Wireline for Voice Services: Forecasts and Impacts, Third Edition

Lawrence K. Vanston and Ray L. Hodges

This report provides forecasts of the growth in cellular/PCS subscribers and usage and their impact on the wireline operations of local exchange carriers. The business case for competition with wireline is simple. Major wireless providers and any number of resellers and small providers will have digital technology, which will increase capacity, battery life, and quality — at lower costs. More capacity, falling costs, and more competitors will result in lower prices—which inevitably will result in more customers and higher usage. With more wireless customers and lower prices, usage and ultimately access will be diverted from wireline.

Published 1998, Bound Softcover, 41 pages, ISBN 1-884154-10-7, Sponsored by the TTFG*

SUPPORT PRODUCTS

SIN 874-5

Communication Technology Update, 6th Edition

August E. Grant, Jennifer Harman Meadows, Editors—in Association with Technology Futures, Inc.

The latest edition of this annual review of the state-of-the-art in communication technologies continues to provide the latest information on electronic mass media, computers, consumer electronics, satellites, and telephony. Additionally, the new edition contains coverage of print technologies, electronic mail, and personal communications devices.

Published by Focal Press 1998, Bound Soft Cover, approx. 350 pages, ISBN 0-240-80326-4

Visit the *Communication Technology Update Website* for timely updates of the CTU chapters.

Transforming the Local Exchange Network: Analyses and Forecasts of Technology Change, Second Edition

Lawrence K. Vanston, Ray L. Hodges, and Adrian J. Poitras

This report provides tremendous insight into expectations for the future of current network assets—cable, circuit, and switching—in North America. In each of these categories, tremendous changes are underway which are displacing the bulk of existing investment and making large amounts of new investment necessary. Changes are not only being driven by advances in telecommunications technology, but also by the need for new communications services and the emergence of competition in the local exchange. These three drivers—technology, new services, and competition—reinforce each other and together increase the pace, magnitude, and importance of the adoption of new technology.

Published 1997, Bound Softcover, 270 pages, ISBN 1-884154-08-5, Sponsored by the TTFG*

Advanced Video Services: Analysis and Forecasts for Terrestrial Service Providers

Lawrence K. Vanston, Curt Rogers, and Ray L. Hodges

This in-depth research report forecasts the availability and adoption of advanced video services, particularly by the terrestrial cable and telephone networks. Included are likely technology adoption strategies of some newcomers to the video industry—and assessments of the impact on their existing networks.

Published 1996, Bound Soft Cover, 132 pages, ISBN 1-884154-05-0, Sponsored by the TTFG*

Computer Technology Trends: Analysis and Forecasts

Adrian J. Poitras and Ray L. Hodges

This insightful report focuses on the effects of technical progress in computers, along with continually expanding requirements and utility. Also covered are the rapid obsolescence and replacement of both existing and new computer assets and related equipment.

Published 1996, Bound Soft Cover, 63 pages, ISBN 1-884154-06-9, Sponsored by the TTFG*

Wireless and Cable Voice Services

Lawrence K. Vanston and Curt Rogers

This timely report addresses the magnitude and timing of the impact of wireless and cable competition on the LEC's wireline voice services. The authors analyze the impacts and forecast subscriber growth and prices for wireless and cable voice services.

Published 1995, Bound Soft Cover, 75 pages, ISBN 1-884154-04-2, Sponsored by the TTFG*

SUPPORT PRODUCTS

SIN 874-5

Depreciation Lives for Telecommunications Equipment: Review and Update

Lawrence K. Vanston, Ray L. Hodges, and Adrian J. Poitras

This 1995 report updates the calculations for depreciation lives and summarizes the results of TFI's 1994 research report, *Transforming the Local Exchange Network: Analyses and Forecasts of Technology Change*.

Published 1995, Bound Softcover, 51 pages, Sponsored by the TTFG*

Transforming the Local Exchange Network: Analyses and Forecasts of Technology Change, 1994 Edition

Lawrence K. Vanston

This research report quantifies the replacement of older telecom technologies with new high-speed, high-bandwidth telecom technologies—fiber optics, SONET, and ATM—by the LECs. It is focused primarily on the management of capital, including both the realistic assessment of the usefulness and longevity of existing assets, as well as the need for new investment to provide the basis for earnings, growth, competitiveness, and satisfied customers in the future.

Published 1994, Bound Softcover, 200 pages, Sponsored by the TTFG*

Introduction to Technology Market Forecasting

Lawrence K. Vanston and John Vanston

This monograph updates Ralph C. Lenz's monograph, *Rates of Adoption/Substitution in Technological Change*. This revision includes discussion and examples of several substitution models including the Fisher-Pry and Gompertz models.

Published 1996, Bound Softcover, 27 pages, ISBN 1-884154-07-7, Sponsored by the TTFG*

Technology Forecasting: An Aid to Effective Technology Management

John H. Vanston

This management guide details technology forecasting techniques that will contribute to better decision making and will provide assistance for organizations to improve planning, operations, and marketing.

Published 1988, Bound Softcover, 59 pages, ISBN 1-884154-03-4

Practical Technology Forecasting

James R. Bright

Technology forecasting describes a group of techniques that predict in quantifiable terms the direction, character, rate, implication, and impact of technical advance. People interested in the methodologies of technology forecasting will find this text indispensable. It provides an excellent introduction to, and overview of, most of the methods currently in use.

Published 1996, Bound Softcover, 27 pages, ISBN 1-884154-09-3

SUPPORT PRODUCTS

SIN 874-5

Personal Communications: Perspectives, Forecasts, and Impacts

Ralph C. Lenz and Lawrence K. Vanston

This research report sorts out the key issues, reviews the relevant technologies, and quantifies the timing and size of the competitive impact of wireless services on wireline revenues and equipment lives for local exchange carriers.

Published 1993, Bound Softcover, 99 pages, Sponsored by the TTFG*

New Telecom Services & the Public Telephone Network

Lawrence K. Vanston

Over the next several decades, the focus of the telephone network will change dramatically. As the capstone of this new services report series, forecasts for demand of residential and business applications of digital communications are reviewed. These services include advanced fax, computer-based imaging, interactive multimedia, local area network interconnection, multi-way video communications, and advanced television. The potential impact of these new digital services on the public telephone network is examined and discussed. Conclusive findings resulting from three years of research and six research reports are presented.

Published 1993, Bound Softcover, 85 pages, Sponsored by the TTFG*

Telecommunications for Television/Advanced Television: Forecasts of Markets and Technologies

Lawrence K. Vanston, Julia A. Marsh, and Susan M. Hinton

Combining the visual power of television with the power of computers and telephony promises to transform the TV into an interactive entertainment and communications device in the future. The integration of video with voice and data communications is changing the regulatory and competitive boundaries of both the telephone and cable industries. This report looks at how television services will impact the development of the public telecommunications network and develops forecasts of the demand for video dialtone services and the adoption of HDTV.

Published 1992, Bound Softcover, 144 pages, Sponsored by the TTFG*

Video Communications: Forecasts of Markets and Technologies

Lawrence K. Vanston, Julia A. Marsh, and Susan M. Hinton

During the next decade, advances in chip, computing, and transmission technologies hold the promise of making two-way video communications as easy and affordable as catching the latest news on cable TV. This report looks at three major segments of the booming video communications market—the high-end conference systems market, the desktop market, and the home market—and develops forecasts for each market.

Published 1992, Bound Softcover, 111 pages, Sponsored by the TTFG*

SUPPORT PRODUCTS

SIN 874-5

Local Area Network Interconnection: Forecasts of Markets and Technologies

Bruce R. Kravitz and Lawrence K. Vanston

The skyrocketing growth of local area networks has created an enormous demand for easy, cost-effective methods for linking geographically-remote LANs. As these private networks grow in size, complexity, and cost, companies are increasingly looking to the public network to provide the high-speed communications services necessary to interconnect LANs. This report discusses technologies and topologies, the concept of protocols, and the drivers fueling the growth of LANs and LAN interconnection in the United States. Forecasts are developed for both the LAN and LAN interconnection markets.

Published 1992, Bound Softcover, 116 pages, Sponsored by the TTFG*

Interactive Multimedia and Telecommunications: Forecasts of Markets and Technologies

Julia A. Marsh and Lawrence K. Vanston

Factors impacting the development and commercialization of multimedia products and services are discussed. Demand forecasts for multimedia communications in the home and office markets are developed.

Published 1992, Bound Softcover, 143 pages, Sponsored by the TTFG*

Computer-Based Imaging and Telecommunications: Forecasts of Markets and Technologies

Lawrence K. Vanston, Samia El-Badry-Nance, William J. Kennedy, and Nancy E. Lux

This report considers the future of computer-based imaging and the impacts of telecommunications. Forecasts in two general markets—document applications and photorealistic applications—are developed through the early 2000s.

Published 1991, Bound Softcover, 185 pages, Sponsored by the TTFG*

A Facsimile of the Future: Forecasts of the Fax Markets and Technologies

Lawrence K. Vanston, William J. Kennedy and Samia El-Badry-Nance

In this report, the future of fax is considered from four perspectives: the office fax explosion, emerging new fax technologies, prospects for a home fax explosion, and the potential impact on the telecom network. Forecasts for the home and office fax markets are developed through 2010.

Published 1991, Bound Softcover, 80 pages, Sponsored by the TTFG*

1999 PRICE LIST*

Consultation Services SIN 874-1

Labor Category	Hourly Rate	Daily Rate
Principal	\$240	\$1,920
Senior Consultant	\$200	\$1,600
Consultant	\$160	\$1,280
Junior Consultant	\$140	\$1,120
Senior Researcher	\$120	\$960
Researcher	\$80	\$640
Senior Specialist	\$120	\$960
Specialist	\$80	\$640
Graphics	\$60	\$480
Administration	\$52	\$416

Facilitation Services SIN 874-2

Labor Category	Hourly Rate	Daily Rate
Senior Facilitation Design Specialist	\$200	\$1,600
Facilitation Design Specialist	\$160	\$1,280
Senior Facilitation Specialist	\$160	\$1,280
Facilitation Specialist	\$140	\$1,120
Facilitation Technology Specialist	\$80	\$640
Graphics	\$60	\$480
Administration	\$52	\$416

Survey Services SIN 874-3

Labor Category	Hourly Rate	Daily Rate
Senior Survey Design Specialist	\$240	\$1,920
Survey Design Specialist	\$200	\$1,600
Senior Survey Analyst	\$160	\$1,280
Statistician	\$160	\$1,280
Data Technician	\$80	\$640

*These prices represent a 20% Federal Agency discount from TFI's normal rates.

1999 PRICE LIST*

Training Services SIN 874-4

Forecasting, Planning & Managing Technology

Length of Course:	3 Days
Total Price of Course for Minimum Number of Participants:	\$16,800
Minimum Number of Participants:	15
Price Per Additional Participant in Excess of the Minimum:	\$350

Telecom Trends: Markets and Technology

Length of Course:	2 Days
Total Price of Course for Minimum Number of Participants:	\$10,000
Minimum Number of Participants:	12
Price Per Additional Participant in Excess of the Minimum:	\$300

Technology as a Strategic Asset

Length of Course:	3 Days
Total Price of Course for Minimum Number of Participants:	\$16,800
Minimum Number of Participants:	15
Price Per Additional Participant in Excess of the Minimum:	\$350

Effective Technology Transfer

Length of Course:	2 Days
Total Price of Course for Minimum Number of Participants:	\$12,000
Minimum Number of Participants:	15
Price Per Additional Participant in Excess of the Minimum:	\$250

Identifying and Evaluating Breakthrough Technologies

Length of Course:	3 Days
Total Price of Course for Minimum Number of Participants:	\$16,800
Minimum Number of Participants:	15
Price Per Additional Participant in Excess of the Minimum:	\$350

Quantitative Technology/Market Forecasting

Length of Course:	2 Days
Total Price of Course for Minimum Number of Participants:	\$12,000
Minimum Number of Participants:	12
Price Per Additional Participant in Excess of the Minimum:	\$250

Technology Forecasting for the Telecom Industry

Length of Course:	3 Days
Total Price of Course for Minimum Number of Participants:	\$19,200
Minimum Number of Participants:	15
Price Per Additional Participant in Excess of the Minimum:	\$400

Leadership in the Information Age

Length of Course:	2 Days
Total Price of Course for Minimum Number of Participants:	\$10,000
Minimum Number of Participants:	12
Price Per Additional Participant in Excess of the Minimum:	\$300

*These prices represent a 20% Federal Agency discount from TFI's normal rates.

1999 PRICE LIST*

Training Services SIN 874-4

Entrepreneurship in Large Organizations

Length of Course:	2 Days
Total Price of Course for Minimum Number of Participants:	\$10,000
Minimum Number of Participants:	12
Price Per Additional Participant in Excess of the Minimum:	\$300

Technology Depreciation Analysis

Length of Course:	2 Days
Total Price of Course for Minimum Number of Participants:	\$10,000
Minimum Number of Participants:	12
Price Per Additional Participant in Excess of the Minimum:	\$300

Distance Education

Length of Course:	2 Days
Total Price of Course for Minimum Number of Participants:	\$10,000
Minimum Number of Participants:	12
Price Per Each Additional Participant in Excess of the Minimum:	\$300

Support Products SIN 874-5

Publications

Comparison of Economic Life Techniques	\$396
Telecommunications Access Technologies: Overview and Competitive Assessment	\$396
Wireless vs. Wireline for Voice Services: Forecasts and Impacts	\$396
Communication Technology Update	\$40
Transforming the Local Exchange Network: Analyses and Forecasts of Technology Change	\$796
Advanced Video Services: Analysis and Forecasts for Terrestrial Service Providers	\$76
Computer Technology Trends: Analysis and Forecasts	\$76
Wireless and Cable Voice Services	\$76
Depreciation Lives for Telecommunications Equipment: Review and Update	\$36
Transforming the Local Exchange Network: Analyses and Forecasts of Technology Change	\$76
Introduction to Technology Market Forecasting	\$25
Technology Forecasting: An Aid to Effective Technology Management	\$36
Practical Technology Forecasting	\$25
Personal Communications Services	\$36
New Telecom Services & the Public Telephone Network	\$36
Telecom for Television/Advanced Television	\$36
Video Communications	\$36
Local Area Network Interconnection	\$36
Interactive Multimedia & Telecommunications	\$36
Computer-Based Imaging & Telecommunications	\$36
A Facsimile of the Future	\$36

*These prices represent a 20% Federal Agency discount from TFI's normal rates.

ORDERING INFORMATION

Technology Futures, Inc. has been awarded a Federal Supply Schedule (Contract #GS-10F-0233J) based on a thoroughly-evaluated technical proposal and negotiated prices. Since the General Services Administration (GSA) has already established TFI as a qualified MOBIS vendor and conducted cost/price negotiations, Technology Futures, Inc.'s MOBIS Schedule can be easily accessed using the following process.

Getting Started

When you determine that outside assistance is needed, the project manager should work closely with the agency procurement office to develop a statement of work. The agency procurement office should request proposals or expressions of interest from a minimum of three Schedule contractors (a list of MOBIS contractors can be obtained from the GSA). Formal competition to determine a vendor's technical capabilities is not required because GSA has already determined that Schedule holders are qualified to perform the services.

Selecting a MOBIS Consultant

Most agencies have needs that will almost certainly require a unique combination of the services available through the MOBIS Schedule. It is very important to find a consultant that has the range of services that meet your requirements. Ordering activities should be careful not to select a MOBIS consultant based solely on the lowest proposed price. Although price should always be a consideration, a low proposed price may not result in the best value to the government. The hourly rates offered by each MOBIS contractor, for example, may not be comparable because of differences in the quality of their people, the consultant's internal training and education programs, and the quality of the tools and techniques that a consultant employs to assist an agency.

Issuing a MOBIS Delivery Order

The process of issuing a delivery order under the Federal Supply Schedule is relatively simple and can generally be accomplished in a matter of days. The ordering activity, for example, issues a delivery order directly to the MOBIS contractor for the required supplies or services, which, in itself, significantly reduces administrative time. Ordering activities must, however, select a consultant using one of the three approaches listed below before a delivery order is issued.

1. Contract and/or review the catalogs of three firms.
2. Request oral proposals from three firms.
3. Request written proposals from three firms.

FAR Part 13 does not apply when agency requirements are satisfied through a Federal Supply Schedule, and ordering activities are not required to seek full and open competition, synopsise the requirement, or make a determination of fair and reasonable pricing. GSA does not prescribe a particular delivery order method; however, the agency must specify the type of services required, delivery time(s), and a task order pricing method (using either fixed price or labor hour pricing).

Establishing a Blanket Purchase Agreement

Agencies that anticipate a repetitive need for MOBIS-related services may wish to establish a Blanket Purchase Agreement (BPA). The BPA is generally useful when ordering agencies wish to purchase a wide range of services but the exact items, quantities, and delivery requirements are not known in advance and may vary considerably. BPAs may be established with Federal Supply Schedule contractors. FAR Part 13, Subpart 13.202 © (3), specifically addresses establishing BPAs with Federal Supply Schedule contractors.

For information please call **Technology Futures, Inc.**

(800) TEK-FUTR [835-3887] or **(512) 258-8898**

or contact **David Smith** at the same telephone numbers or e-mail: dsmith@tfi.com

■ **TECHNOLOGY FUTURES, INC.** ■

■ www.tfi.com ■ (800) **TEK-FUTR** [835-3887] or (512) 258-8898 ■ E-mail: info@tfi.com ■ Fax: (512) 258-0087 ■

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