

WORLDWIDE CTI MARKETS STRATEGIES, FORECASTS TO 2002

Service Provider and Enterprise Voice and Data Network Convergence:

**Impact of the Internet
Call Centers
Voice Messaging
Internet (IP) Telephony**

THE STUDY ADDRESSES THESE QUESTIONS:

- **What are the high growth market sectors?**
- **How do companies position?**
- **How are server products?**
- **What is the impact of desktop CTI?**
- **What are interesting technologies?**
- **What are the successful strategic market alliances?**
- **Why are companies making strategic alliances?**
- **Who are the best partners?**
- **What are emerging market directions?**

You NEED This Study

CTI represents an essential aspect of the convergence of voice and data networks. CTI provides interface logic to permit computers and telephones to be interconnected. CTI systems reach a large number of industry and functional market segments because of the broad functionality offered.

Selected New Market opportunities

COMPANIES PROFILED

ACTIVE VOICE CORP
ALCATEL
APROS
ASPECT
TELECOMMUNICATIONS
AVT CORPORATION
BROOKTROUT
TECHNOLOGY
CENTIGRAM
COMMUNICATIONS
COMVERSE

BOSTON
TECHNOLOGY
DIALOGIC
EDIFY
ERICSSON
FUJITSU
GLENAYRE
TECHNOLOGIES
HOMISCO
INTERVOICE
LUCENT
OCTEL

MITEL
NATURAL
MICROSYSTEMS CORP
NEC
NORTEL
SCO
SIEMENS BUSINESS
COMMUNICATION
SYSTEMS
VOCALTEC

REPORT OUTLINE

EXECUTIVE SUMMARY

1. CTI MARKET DESCRIPTION

Impact of Internet
Convergence of voice and data
Definition
Computer Connectivity
Computer Telephony Integration
Interface function
CTI value added services
CTI features are enabled by Computer application software.
Outbound call center
Inbound Call Management (ICM)
On hold messaging
Voice messaging
Desktop CTI solutions

2. CTI MARKET FORECASTS

CTI market segments, market shares, and forecast summary
CTI market shares
CTI summary forecasts
CTI regional market analysis
CTI interface logic markets
Call centers
Service operator call centers
PBX call centers
voice messaging
Service provider voice messaging
Enterprise messaging systems
Virtual office
IP telephony
Server and desktop CTI
CTI servers
PC-based CTI

3. CTI PRODUCT DESCRIPTIONS

CTI
Aspect CTI System
Nortel's OC-3 Express
Fujitsu
Dialogic

NATURAL MICROSYSTEMS
AVT
Alcatel
Ericsson
Nortel
Antares
Brooktrout Technologies
CTI desktop systems
Fujitsu
Rolm
Nortel DMS CTI
Dialogic
Ó Groupe Cerveau
call centers
Incoming call distribution
Outgoing call automation
Call recording
Aspect integrated call centers
Dialogic
itel call centers
Nortel
Fujitsu
Alcatel
Ericsson
Voice messaging
Lucent/Octel
Brooktrout
Boston Technology/Comverse
Comverse
Glenayre
Itawsu
Unified Messaging
Internet telephony
Lucent
Vocal Tec
Siemens Business Communication Systems
Nortel
Ericsson
Dialogic
Brooktrout
Real-time IP Fax

Siemens
 Brooktrout Technologies
 Rolm
CTI servers
 Microsoft Internet Server
 Siemens Nixdorf Internet server
 IBM E-commerce servers
 BEA / Tibco
 Mitel servers
 Fujitsu
 SCO / Dialogic open CTI UNIX server
 Edify servers
 Alcatel
 Ericsson enterprise open application server
Intelligent fax products
Voice information systems

Security Mechanisms
 Passwords
 Anti-piracy Vaccine
 Sabotage Detection
 Disk Mirroring
Operating system security
Messaging support
Media control framework
Fast caches
EDO RAM
Pipelining
Fiber channel
Universal serial bus
Service provider interface (SPI)
Core media services
Administration agent
Media/call control connectivity standards
TAPI
SCSA open systems
 ECTF
 SCSA focus and elements
 Modular CT Elements
 Client/Server Connectivity

4. CTI TECHNOLOGIES, CAPABILITIES, BENEFITS

CTI Applications
 Call Centers
Interactive voice response
 Automatic call distributor
 Automatic number identification
 Dialed number identification service

5. CTI COMPANY PROFILES

LIST OF TABLES AND FIGURES

FORECASTS OF CTI EQUIPMENT 1997 To 2002

Worldwide Market Shares 1997

Worldwide Market Revenue/Units, 1997 to 2002

CTI market growth factors
 CTI functional components
 Proprietary versus open systems
 Cti interface functions hub
 CTI benefits
 Outbound call center functions
 Call Center system
 Call Center management
 Inbound Call Management (ICM) functions
 Voice messaging features
 Voice messaging functions
 Desktop CTI feature/function
 CTI Market Driving Forces
 CTI Market Segments
 CTI Market Share
 Summary
 Summary Forecast, CTI
 CTI Regional Market Analysis
 CTI Interface Logic
 High End Call Center
 Low End Call Center
 Advantages Of Voice Mail

Voice Mail Application Tasks
 Voice Mail Vertical Markets
 Voice Messaging Useages and Pricing Information
 Provider Voice Messaging
 Enterrprise Voice Messaging
 Home Office Workers
 IP Telephony Solutions
 Targets
 Internet Telephone Equipment
 Internet Purchases Market
 Internet Telephone Users
 Internet Telephone
 CTI Server Shipment Market
 Desktop CTI Shipment Market
 Driving Forces Desktop CTI
 Drivign Forces CTI Fax
 Dialogic CTI product offerings
 Natural Microsystems CTI
 Strategic product positioning.

BrookTrout Technologies
 CTI
 Desktop computer telephony
 Alternatives for incoming calls
 Aspect call center strategy
 Fujitsu IntelliCenter features.
 Alcatel call processing server
 Comverse/Boston Technology
 Brooktrout IP/telephony
 Siemens Voice/Fax System
 Brooktrout IP fax boards
 Alcatel CTI Cooperative
 Pentium processor pipelines
 Advantages of service provider interfaces
 Elements in SCSA architecture
 SCSA media control framework

REPORT METHODOLOGY

This is the twenty-seventh in a series of market forecasts of communications, telecommunications, and computer and telephone equipment. Interface equipment and applications integration form an integral part of telecommunications/data communications market convergence. The project leaders have significant experience preparing industry studies. Forecasts are based on primary research and proprietary data bases. In-depth interviews are conducted with a broad range of key vendor and user participants in the market. Opinion leaders are interviewed to determine market directions and new product features needed.

ABOUT THE COMPANY

WinterGreen Research, founded in 1985, provides strategic market assessments in telecommunications, communications equipment, health care and advanced computer technology. Industry reports focus on opportunities that will expand existing markets or develop major new markets. The reports assess new product and service positioning strategies; new and evolving technologies; and technological impacts on products, services, and markets. Market shares are estimated. Leading market participants are profiled, and their marketing strategies, acquisitions, and strategic alliances are discussed. The principals of WinterGreen Research have been involved in analysis and forecasting of international business opportunities in telecommunications and advanced computer technology markets for over 30 years.

ABOUT THE PRINCIPAL AUTHORS

Ellen T. Curtiss, Technical Director, co-founder of WinterGreen Research, conducts strategic and market assessments in technology-based industries. Previously she was a member of the staff of Arthur D. Little, Inc., for 23 years, most recently as Vice President of Arthur D. Little Decision Resources, specializing in strategic planning and market development services. She is a graduate of Boston University and the Program for Management Development at Harvard Graduate School of Business Administration.

Susan Eustis, Vice President, co-founder of WinterGreen Research, has done research in communications and computer markets and applications. She holds several patents in microcomputing and parallel processing. She is the author of recent studies of the Regional Bell Operating Companies' marketing strategies and of a study of Internet and Intranet markets. Ms. Eustis is a graduate of Barnard College.

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