

WINTERGREEN RESEARCH, INC.

**Voice Over Internet Protocol (VoIP) Market Opportunities,
Strategies, and Forecasts, 2004 to 2009**

Voice Over Internet Protocol (VoIP)



Picture by Susie Eustis

MOUNTAINS OF OPPORTUNITY

**WinterGreen Research, Inc.
Lexington, Massachusetts**

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CHECK OUT THESE KEY TOPICS

VOIP SERVICE PROVIDER EQUIPMENT MARKET SHARES
VOICE OVER INTERNET PROTOCOL MARKET FORECASTS
Voice Over Internet Protocol Driving Forces

VoIP Solution Attributes

VoIP Telephone Calls
Elements of a Converged Voice/Data Network
IP-TO-IP GATEWAYS
VOIP VOICE QUALITY
NETWORK DESIGN FOR VOICE OVER IP
DESIGNING A HIGHLY AVAILABLE VOICE NETWORK
CLEARINGHOUSE SERVICE
SESSION INITIATION PROTOCOL (SIP)
PER-CALL LEVEL SECURITY
VOIP VERTICAL MARKET POSITIONING
VERTICAL MARKET SOLUTIONS
VOIP GATEWAY EQUIPMENT USER ANALYSIS

OPPORTUNITY ABOUNDS

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Voice Over Internet Protocol (VoIP) Market Opportunities, Strategies, and Forecasts, 2004 to 2009

Voice over Internet protocol (VoIP) can be implemented in two ways: calls can originate from the traditional TDM circuit switched technology, or originate from an Internet protocol router. IP to TDM and TDM to IP VoIP are very different. These fundamental differences in technology referred to as the same term (VoIP) have served to confuse the market, with distinctly different products being positioned as VoIP solutions.

In the near term, routers will be the bases for originating VoIP calls implementing IP to TDM. IP to TDM will quickly become the entire market. TDM to IP call origination is outdated and far more expensive. The implementation of broadband in the home will hasten the desire to originate calls directly from an existing Internet connection.

IP to TDM is positioned to dominate the market. The multiple IP-to-IP gateway Cisco IOS software images are used to implement VoIP that originates calls from an IP connection and connects to the existing TDM traditional switched networks after call origination. Feature licenses are priced based on the platform and processor used. Ports per se do not exist in a system that originates VoIP from the router. Ports are virtual, dependent on the capacity of the network. The larger the performance capability of the gateway, the greater is the price of the feature license.

The global service provider voice over Internet protocol (VoIP) gateway market at \$165.3 million in 2003 is expected to reach 985.7 million dollars in the year 2009. The market is anticipated to grow at a steady positive rate over the years. The growth is brought by replacement of digital proprietary voice switching systems with systems that do manage to put voice over the Internet reliably and clearly.

Companies Profiled

Market Leaders

Alcatel
Cisco
Siemens
Nortel
NEC

Market Participants

3Com
Avaya
D-Link
Fujitsu
Mera Systems
Planet
Quintum Technologies
WellTech

Agilent Technologies
B.O.S.
Empirix
Inter-Tel
Mitel
Pulse
Samsung
VocalTec

Voice Over Internet Protocol (VoIP) Strategies and Forecasts, 2004-2009

REPORT METHODOLOGY

THIS IS THE *TWO-HUNDRED AND THIRTY-FIRST* REPORT IN A SERIES OF MARKET RESEARCH REPORTS THAT PROVIDE FORECASTS IN COMMUNICATIONS, TELECOMMUNICATIONS, THE INTERNET, COMPUTER, SOFTWARE, TELEPHONE EQUIPMENT, HEALTH EQUIPMENT, AND ENERGY. THE PROJECT LEADERS TAKE DIRECT RESPONSIBILITY FOR WRITING AND PREPARING EACH REPORT. THEY HAVE SIGNIFICANT EXPERIENCE PREPARING INDUSTRY STUDIES. FORECASTS ARE BASED ON PRIMARY RESEARCH AND PROPRIETARY DATA BASES. FORECASTS REFLECT ANALYSIS OF THE MARKET TRENDS IN THE SEGMENT AND RELATED SEGMENTS. UNIT AND DOLLAR SHIPMENTS ARE ANALYZED THROUGH CONSIDERATION OF DOLLAR VOLUME OF EACH MARKET PARTICIPATION IN THE SEGMENT. INSTALLED BASE ANALYSIS AND UNIT ANALYSIS IS BASED ON INTERVIEWS AND AN INFORMATION SEARCH. MARKET SHARE ANALYSIS INCLUDES CONVERSATIONS WITH KEY CUSTOMERS OF PRODUCTS, INDUSTRY SEGMENT LEADERS, MARKETING DIRECTORS, DISTRIBUTORS, LEADING MARKET PARTICIPANTS, OPINION LEADERS, AND COMPANIES SEEKING TO DEVELOP MEASURABLE MARKET SHARE. OVER 200 IN DEPTH INTERVIEWS ARE CONDUCTED FOR EACH REPORT WITH A BROAD RANGE OF KEY PARTICIPANTS AND INDUSTRY LEADERS IN THE MARKET SEGMENT. WE ESTABLISH ACCURATE MARKET FORECASTS BASED ON ECONOMIC AND MARKET CONDITIONS AS A BASE. USE INPUT/OUTPUT RATIOS, FLOW CHARTS, AND OTHER ECONOMIC METHODS TO QUANTIFY DATA. USE IN-HOUSE ANALYSTS WHO MEET STRINGENT QUALITY STANDARDS. INTERVIEWING KEY INDUSTRY PARTICIPANTS, EXPERTS AND END-USERS. OUR RESEARCH INCLUDES ACCESS TO LARGE PROPRIETARY DATABASES. LITERATURE SEARCH INCLUDES ANALYSIS OF TRADE PUBLICATIONS, GOVERNMENT REPORTS, AND CORPORATE LITERATURE.

YOU MUST HAVE THIS STUDY

Voice Over Internet Protocol (VoIP) Market Opportunities, Strategies, and Forecasts, 2004 to 2009

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