

WINTERGREEN RESEARCH, INC.

**Push to Talk and Wireless Push Technologies Market
Opportunities, Strategies, Shares, and Forecasts 2008 to 2014**

**Push to Talk, Push to Talk over Cellular (PoC), and Push on
the Small Screen**



Picture by Susie Eustis

MOUNTAINS OF OPPORTUNITY

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

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CHECK OUT THESE KEY TOPICS

PUSH TO TALK SERVERS
Push to Talk Subscribers
Push to Talk Services
IP Session Control

Push-to-Talk (PTT) Communications

Fixed-Mobile Convergence
Push-to-Talk Voice
Push Cellular Instant Messaging
PUSH TO TALK OPEN SYSTEMS
SERVICE ORIENTED ARCHITECTURE (SOA)
PUSH TO TALK STANDARDS
PUSH-TO-TALK OVER CELLULAR
700MHZ SPECTRUM
3G FEMTO CELLS
SIP TECHNOLOGIES

OPPORTUNITY ABOUNDS

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**Push to Talk, Push to Cellular, Voice and Data IP Push Strategies,
Market Shares, and Market Forecasts, 2008 to 2014**

It's all about the Internet. Push to talk services implement push SIP session control, instead of using circuit switched end-to-end session control. Push technology promises to bring the next generation of communications services on wireless handsets. Push to talk service is an integral part of an IP multimedia communication portfolio

PTT session management is representative of the push technology market shifts, Push technology is a disruptive technology, push technology is more efficient. Data drives the adoption curve, voice services provide the revenue stream.

Push to talk markets are forecast to achieve growth because the calls have subsecond call set up, the systems implement voice over IP, and there is no session to manage, or control. Systems are as useful across geographical locations as they are for families located in the next room. Motorola's multinational PTT is an outdated technology, but relevant still as it integrates with more than 18.3 million existing PTT users throughout the Americas.

PTT service will use VoIP (Voice over IP) and SIP (Session Initiation Protocol) technology to set up and route the instant calls. These technologies leverage the mobile operator's prior investments in wireless CDMA 1X data networking, since VoIP sends voice as data packets over wireline or wireless data channels. There is no need to set up a session using proprietary switch technology. The router controls the sessions.

A private line from Marseilles to Clarity's secure data center in Naperville, Illinois will carry the packetized voice traffic as instant calls between the subscriber handsets and Clarity's SIP-based switch. Qualcomm and Kodiak are among vendors anticipated to benefit from significant market growth.

If a user is involved in a PTT session and receives a cellular call, they receive a call waiting indication. They can answer the cell call, and then switch between the conversations. AT&T boasts the largest Push To Talk network in America, and its PTT service includes several differentiating features, including availability icons, quick group-calling and the ability to easily switch from a PTT session to a regular wireless voice call.

The Push to Talk service is an integral part of the IP Multimedia communication portfolio envisioned by Nokia, and a part of the service offering in IP Multimedia Subsystem (IMS). It is based on half-duplex voice over IP (VoIP) technology over mobile networks.

IP technology gives push to talk service cellular access and radio resources more efficiently than circuit-switched cellular services, reserving network resources only for the duration of talk spurts instead of for an entire call session. Subscribers can instantly talk to each other or to a group by the simple push of a button. It very easily facilitates the close family or business work group needs for very quick and informal communications.

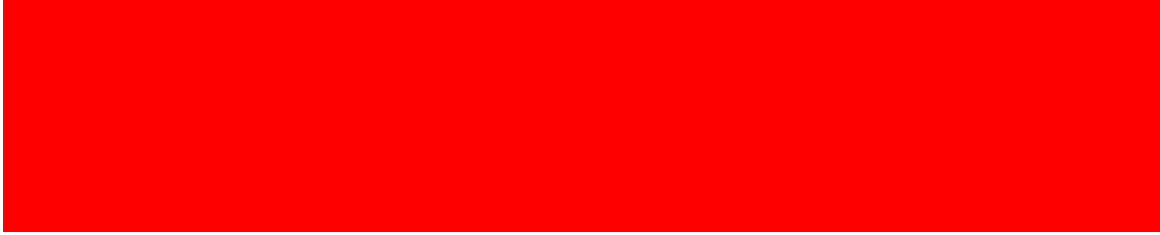
Push to Talk is a presence communication tool, creating a way to communicate with someone as though you are in the same room with them, but from a remote location.

"Push-to-X" means users can key in a single button and have immediate access to something other than another cell phone. That could be anything from a weather report to a stock update.

Push to talk cellular subscribers at 30 million in 2007 are expected to have rapid growth. Subscriber growth comes from the ease of use. Market growth is anticipated as the data services create demand and voice services provide the bulk of the revenue. Push to talk cellular subscriber revenue is expected to be \$14 billion in 2014 with significant more revenue streams added as push technology is used for a variety of applications. The cellular push to talk is evolving to achieve sub second connect times, needing standards to achieve this milestone.

Push to Talk, Push to Cellular, Voice and Data IP Push Strategies, Market Shares, and Market Forecasts, 2008 to 2014 study discusses the advantages of push technology as the small screen of wireless handsets becomes a dominant force in delivery of value added services.

Vendor revenue directly from push to talk at \$350 million in 2007 will reach \$3.5 billion in 2014 improving by a factor of 10 as more subscribers are signed up. The networks and services growth that is spurred by the applications will generate over \$14.3 billion in subscriber revenue in 2014.



Companies Profiled

Market Leaders

QualComm
Nokia Seimens Networks
Kodiak Networks
SONIM
Motorola

Selected Market Participants

Agilent Technologies

Celtius

Conaito

Jennic

WirelessZT

UT Starcom

Clarity Communication Systems

Sprint Nextel

AT&T

Verizon

Nokia

LG

Research In Motion (RIM)

Motorola

Samsung

Push to Talk Market Shares, Strategies, and Forecasts

2008-2014

REPORT METHODOLOGY

THIS IS THE 345ND 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.

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YOU MUST HAVE THIS STUDY

Push to Talk over Cellular (PoC) Strategies and Forecasts 2008 to 2014

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PUSH TO TALK CELLULAR TECHNOLOGY**4. PUSH TO TALK OVER CELLULAR TECHNOLOGY****4-1**

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