

The Media Phone Has Arrived!

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Executive Summary

The term *media phone* has not yet appeared on most people's radar screens. But that is soon to change. In early 2009, incumbent service providers around the world will rollout media phones in consumer markets. The media phone entry into business markets will not be far behind.

The media phone represents a new category of broadband multimedia device that has the potential to become the 4th screen in the home, complementing the PC, TV, and mobile handset. The media phone delivers direct access to Internet-based entertainment and applications using a large (6–10 inch) color touchscreen display with a high-quality speakerphone. The media phone combines the power of a PC with the always-on functionality of the home telephone. Most units are configured with one or more cordless DECT voice handsets, suitable for any room in the home.

In-Stat research has found that the most popular consumer Internet activities include viewing online information services (news updates, weather forecasts, recipes, directory searches), and accessing entertainment content (YouTube videos, movie clips, and music). Media phones offer always-on, one-touch access to this popular media content. Other applications, such as a digital picture frame, TV electronic program guide, local purchases (e.g., pizza or movie tickets) and the integration of mobile features (e.g., visual voice mail, network-based address book, and location-based services) will help make the media phone an indispensable part of every broadband household.

The evolution of the media phone product segment is just beginning. Over time, media phones will be integrated with next-generation network services that employ user profiles, presence-enabled applications, unified messaging and potentially integrated fixed/mobile services. Beyond that, the media phone may support integrated network and web services. Cable operators, mobile operators, and over-the-top Internet application providers are all expected to link media phones with new broadband-based services. To achieve broad adoption, some operators plan to subsidize a major portion of media phone costs.

In-Stat also believes that there is a substantial market for business media phones. Rather than being a defined product, like in consumer markets, business media phones will be an extension of existing IP PBX, IP Centrex and industry-standard SIP-based IP telephones. Business media phones will replace the middle and high-end IP telephones and will be targeted at multimedia applications requiring the always-on, high-performance operation delivered by desktop telephones. OpenPeak was the first to introduce its ProFrame business media phone in January 2009.

HIGHLIGHTS

- Consumer media phones will generate between \$4–\$8 billion in annual revenue, worldwide, by 2013.
- Business media phones will generate \$3.3 billion in annual revenue, worldwide, in 2013.
- The US market will open up in 2009, with Europe coming on line in 2010.

Two consumer forecasts have been developed covering service provider strategies that call for the full-subsidization of media phone costs to the end user, and a partially subsidized unit forecast. In-Stat believes that the full subsidization of media phone costs will maximize consumer adoption regardless of the economy. The partial subsidization of media phone costs will result in a delayed uptake due to global economic recession, as well as significantly lower unit shipments.

Figure 1 presents the worldwide fully subsidized and partially subsidized consumer media phone five-year unit forecast. In-Stat forecasts that by 2013, annual shipments of media phones, worldwide, will range from 23 million (partial subsidy) to over 48 million (full subsidy). North America will host the initial rollout of media phones, but In-Stat expects that Europe will be the largest regional market. Selected Asia/Pacific markets, including Japan, South Korea, Taiwan, Hong Kong, and Singapore are expected to be early media phone adopters. At the current time, China is not considered to be a growth market.

Figure 1. 2008–2013 Fully Subsidized vs. Partially Subsidized Unit Shipment Forecast Comparison (in Millions)

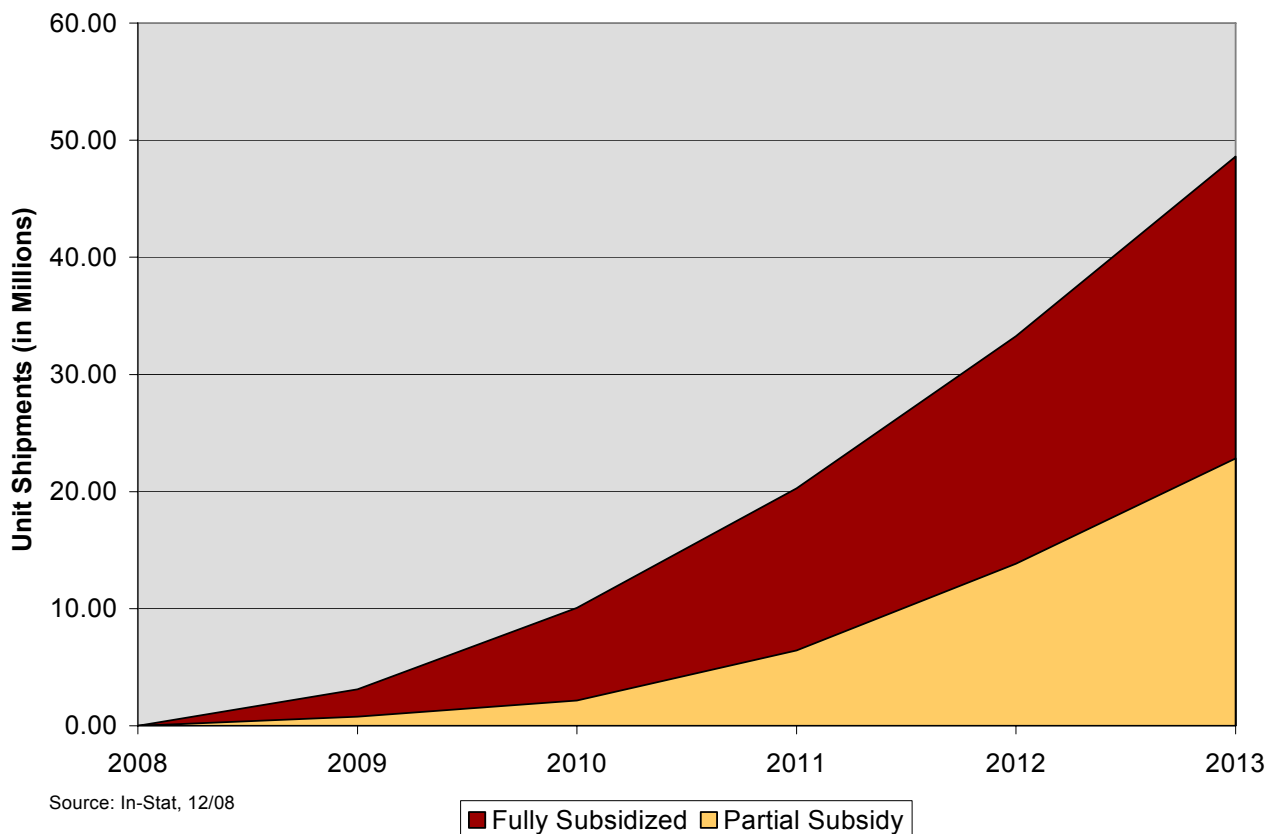
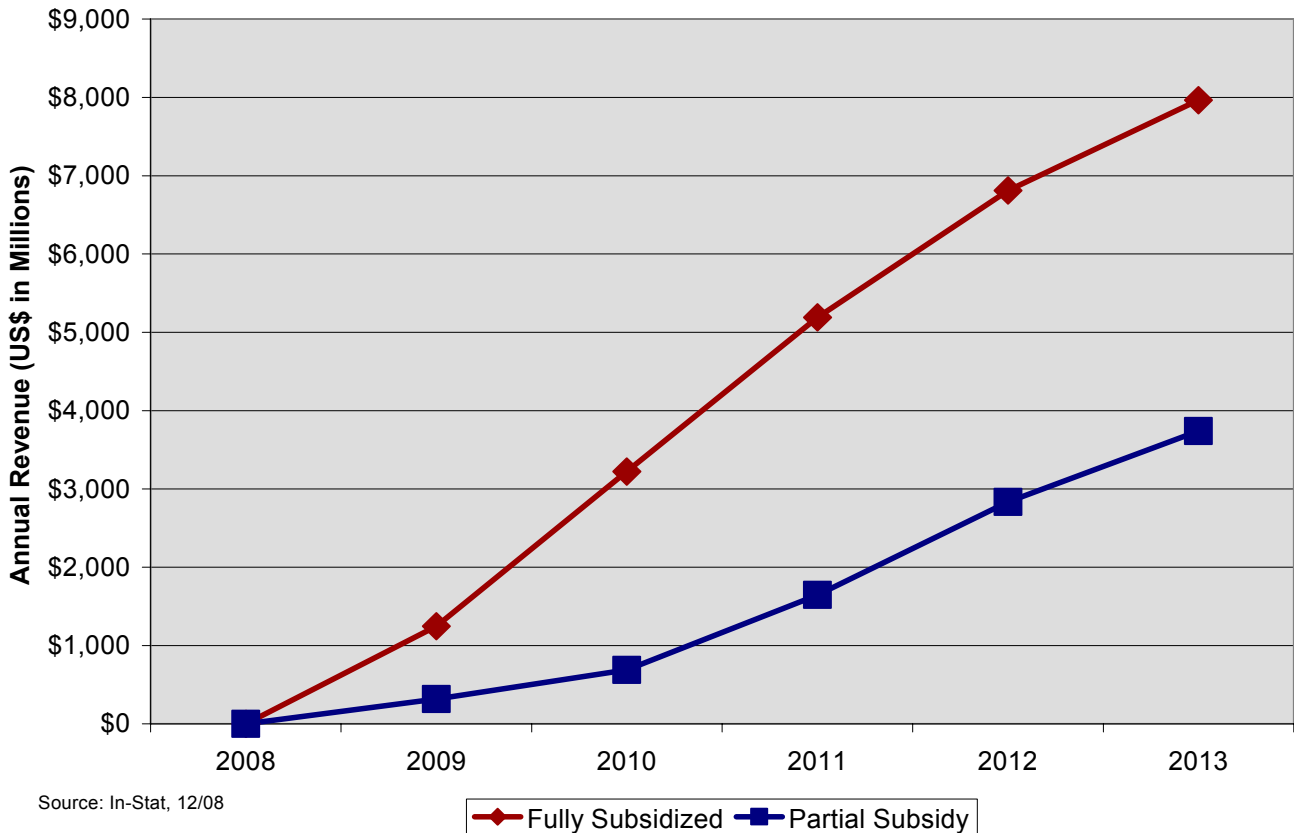


Figure 2 illustrates the five-year forecast of annual revenue generated by media phone sales, worldwide. Full subsidization of media phones will maximize unit deployments, generating nearly US\$8 billion annually by 2013. The partial subsidization of media phones will restrict consumer adoption, generating just under US\$4 billion annually by 2013.

Figure 2. 2008–2013 Subsidized and Nonsubsidized Media Phone Annual Revenue Forecast (US\$ in Millions)

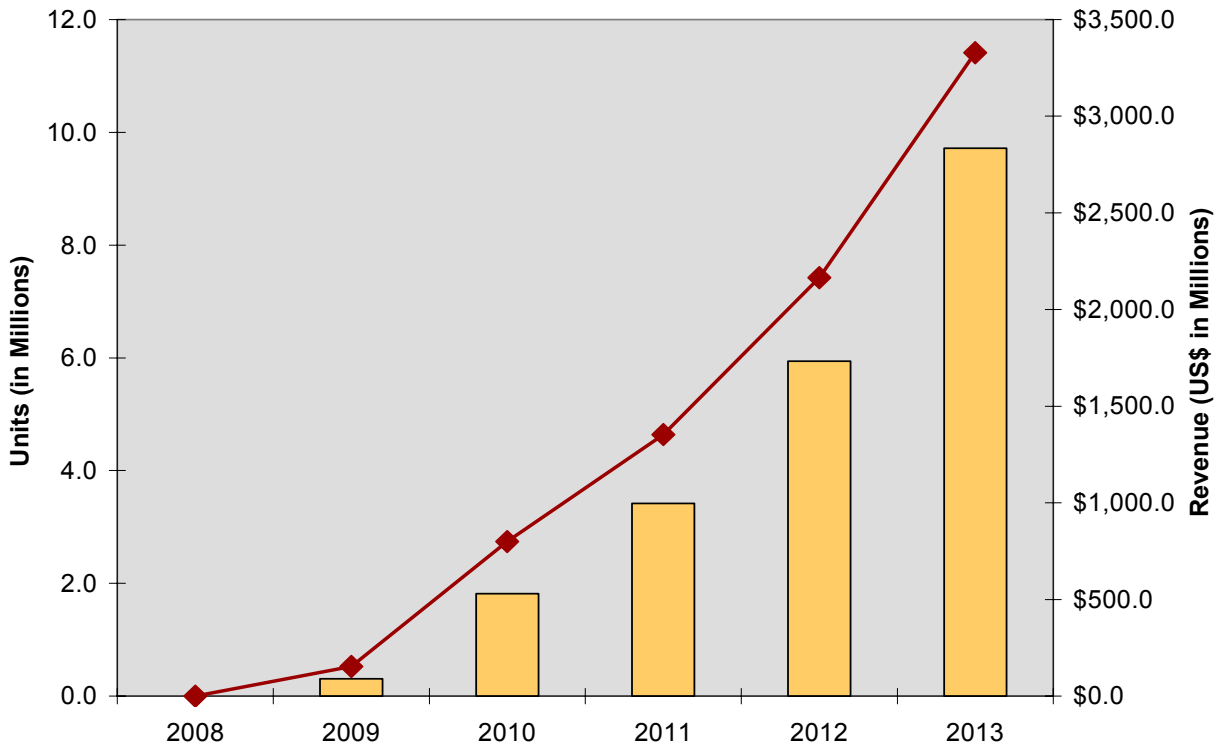


Business media phones will be mostly wired devices, using corded or cordless handsets. Wideband VoIP will be more of a requirement than WLAN or telepresence. There is tremendous growth potential, within the hospitality sector, initially for concierge services and subsequent in-room deployment. However, the greatest market potential for business media phones lies in driving the adoption of IP phones among hybrid IP PBX users. Currently only 40% of IP PBX extensions are configured with IP end points. Convincing businesses to upgrade to IP phones is dependent on offering greater functionality and benefits. Always-on operation, multimedia communication integration, and the guaranteed high performance typically expected from telephones will create the necessary value to drive media phone adoption in the business market.

Figure 3 presents the 2008–2013 global forecast for business media phones. The business media phone market is expected to start out slowly in 2009, but will dominate the mid-level to high-end

business IP phone market by 2013. Within five years, nearly 10 million business media phones will be shipped worldwide, generating over US\$3 billion in annual revenue.

Figure 3. 2008–2013 Business Media Phone Unit and Revenue Forecast (Units and US\$ in Millions)



Source: In-Stat, 12/08

Business media phone units Business media phone revenue

The market success of media phones will not be strictly from the technology, elegant designs, or the Internet content they will deliver. What media phones do is leverage state-of-the-art technology to add convenience, simplicity, and ease-of-use to Internet applications that are accessed multiple times, every day. It doesn't hurt that media phones help promote next-generation network services and business software applications, either.

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Introduction

The media phone represents a new class of broadband devices for the home that combine the power of an Internet-connected PC with the functionality of a home telephone. Media phones offer consumers always-on access to Internet-based media content (e.g., YouTube videos and movie trailers), information services (e.g., news updates, weather forecasts, stock quotes, and directory searches), along with access to innovative new communication services (e.g., integrated fixed/mobile calling features, visual voice mail, and unified messaging).

This research report will examine the emerging market for media phones in both the consumer and business sectors. The research conclusions are supported by In-Stat primary research data, collected over the past 18 months. The primary research included online surveys of consumers and business IT managers, as well as interviews with IP communications equipment vendors, and service providers.

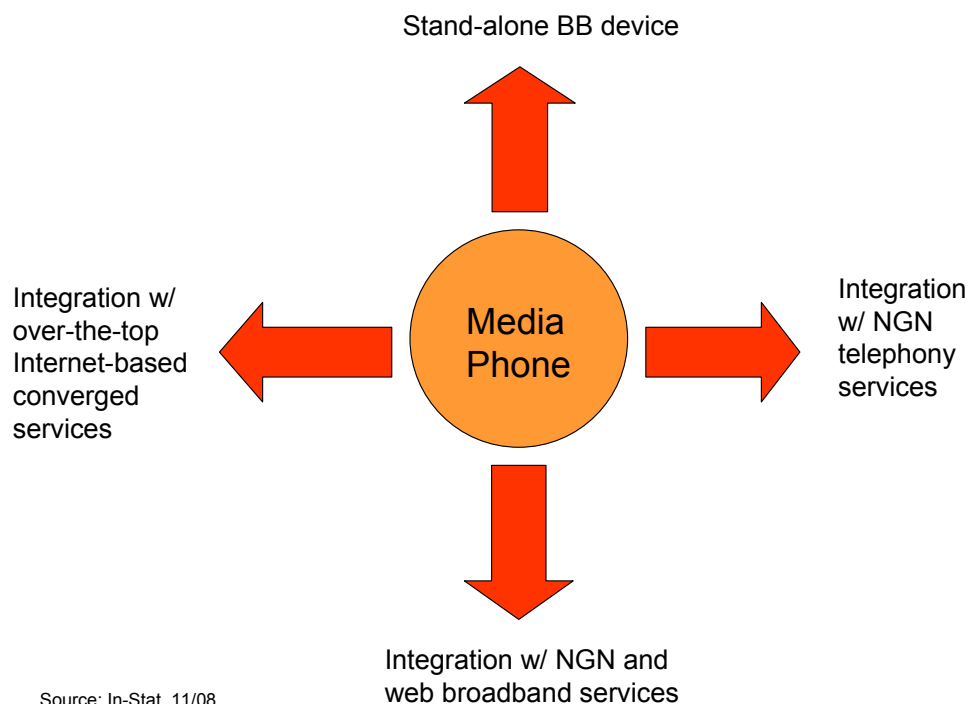
Current media phone products are reviewed and critiqued. The key factors to market success, including end-user benefits, the importance to supplier business models, distribution, and pricing are examined in detail. Five-year media phone unit and revenue forecasts are presented, by geographic region.

The media phone is poised to attain industry-wide acclaim in 2009 and beyond because it addresses many of the ills being faced by service providers and equipment suppliers, alike. Exactly how these devices will evolve is up for debate, but the expectations for this emerging product segment could not be higher. Sit back and let your imagination wander through what may seem like an infinite number of possibilities for the device they call the media phone.

Consumer Media Phone Market

Figure 4 illustrates the different directions in which the media phone market segment may go over the coming years. The consumer media phone devices being introduced at year-end 2008 and early 2009 are generally standalone devices used for direct access to Internet content, with TDM or IP network connectivity. The devices support some telephony features common across the mobile and wireline networks, such as network-based address books, and visual voice messaging. Even though these devices may be sold under the operator's brand, they are essentially independent of operator network services.

Figure 4. Alternative Future Markets for Media Phones



Other avenues for growth will link media phones more closely with network and/or Internet-based services. For example, the full integration of fixed and mobile voice services will drive the need for users to manage user profiles, update a converged address book, or access a unified messaging center. In the future, the availability of the person being called will be displayed prior to initiating the call. Presence information will be used in a wide variety of applications, many requiring user interaction with the network. A home device, such as the media phone, that is designed specifically to support these next-generation network communications services will be an absolute necessity.

Another evolutionary direction involves the integration of network and web services. Telcos, or cable operators, will in the future offer personalized web portals that integrate a user's converged communications services, with web-based applications and content. Operators will import popular Internet content to their network servers to offer a personalized user experience that separate over-the-top Internet applications cannot replicate. The telecom network will also act as a gateway, offering

direct access to external web sites within a managed service environment. This integration of network and web services will help create further demand for optimized devices, such as the media phone.

Finally, application service providers (ASPs) may offer a similar variety of converged communication and web services as telecom operators. In fact, companies, such as GooberNetworks, and TelCentris have already introduced web portals that integrate voice, data and video communication, messaging, social networking, and other Internet content. These web portals are currently geared toward PC and mobile users, but the marketability of the services might be enhanced through branded home media phone devices.

The evolution of the media phone market segment will be dependent on delivering the following requirements: offering substantial consumer value (end-user applications), strong service provider initiatives (supplier push), access to established distribution channels, and low barriers to purchase. Each of these requirements will be examined in greater detail. Most importantly, all must be present for media phones to attain mass market adoption.

End-User Applications

There are currently three commercial media phones, designed by Samsung, OpenPeak, and LG-Nortel. All of these devices have been initially designed in cooperation with service providers. Touch Revolution has introduced a media phone design platform, reflecting the anticipated proliferation of commercial media phone products in 2010 and beyond.

AT&T HomeManager

In September 2008, AT&T announced the introduction of the AT&T HomeManager, being marketed in association with AT&T U-verse service bundles. The HomeManager is a new media phone, designed by Samsung to AT&T specifications. Initially, the device is available in nine US metro area markets. The unit is priced at \$299 and requires a two-year AT&T high-speed Internet term contract, or sign-up for U-verse high-speed Internet and voice services.

The AT&T HomeManager, depicted in Figure 5, combines a cordless DECT 6.0 handset with a 7" (800x480 pixels) portable touchscreen frame. The basestation supports up to 4 cordless handsets and 2 frames. The frame connects to the basestation using DECT for voice calls, and via a private Wi-Fi connection for viewing broadband content. The HomeManager is also compatible with U-verse VoIP services.

Figure 5. AT&T HomeManager



Source: AT&T, 2008

Table 1 is a partial listing of the HomeManager hardware features and broadband applications. Consumers can either touch the frame screen, or use a navigation ball to select menu options. The device can be used to make phone calls, retrieve voice messages and emails, search or browse yellowpages, or whitepages directories, view news and sports updates, weather forecasts, maintain a family calendar, and display digital pictures.

Table 1. AT&T HomeManager Features

AT&T HomeManager Media Phone
Hardware
Cordless PSTN handsets (up to 4)
7" color, touchscreen display w/ ARM processor
Wi-Fi-enabled BB basestation
Speakerphone
BB Applications
VoIP calling (only with AT&T U-verse VoIP)
Streaming news/weather/stock quotes/sports
Phone synchable address book
Digital picture frame
Directory services (Yellowpages)
Visual voice mail, email, call log
Recipes, local movie listings

Source: AT&T, 9/08

The unit can be configured with a family voicemail box and up to four personal voicemail boxes. If users also have AT&T mobile phone service and subscribe to the AT&T Mobile Backup service, their personal address books can be automatically updated from the network. The visual voice mail feature permits users to see and listen to messages via a single wireline-wireless mailbox on both the touchscreen and cordless handset. The feature is compatible with both the AT&T U-verse Voice and AT&T Unified Messaging services. All information services and applications are operated by AT&T.

Verizon Hub and OpenPeak OpenFrame

Verizon began selling its consumer media phone on February 1, 2009. Branded the Verizon Hub, it is an IP media phone, designed by Verizon and manufactured by OpenPeak. OpenPeak, a start-up company based in Boca Raton, FL, has also introduced its OpenFrame IP Media Phone in September 2008. As early as January 2007, Verizon announced its plans to market a media phone device, initially known as the FiOS Fone, in association with the FiOS broadband service bundles. However, Verizon has altered its plans and is marketing the Hub nationally, in association with its VoIP services.

The OpenFrame IP Media Phone is being supplied to other, yet-to-be-announced telecom operators for early 2009 product launches. Commercial shipments of the OpenFrame IP Media Phone are scheduled to begin in early 2009. Figure 6 shows the icon-driven screen design of the OpenFrame system.

Verizon has announced that the Hub will be sold through all Verizon retail outlets and is priced at \$199 with a 2-year VoIP service contract. This pricing includes a \$50 rebate on the device. Verizon's virtual VoIP service can be used in conjunction with a broadband connection from any service provider and is priced at \$35 per month.

Figure 6. OpenFrame IP Media Phone

Source: OpenPeak, 2008

The OpenFrame IP Media Phone is promoted as an all-in-one voice, data, and video center for the home. It is essentially a standalone home communication device that combines a cordless DECT telephone handset with a touchscreen OpenFrame display unit. The OpenFrame will support IP voice and video broadband applications, such as viewing YouTube video clips, digital pictures, streaming online news and sports, or yellowpages directory lookups. The device also features a network-based address book that can be partitioned for each member of the family. The OpenFrame serves as both a DECT basestation and a broadband device, connecting to the broadband network over Ethernet, or via a Wi-Fi connection.

Figure 7 presents the OpenTablet model, introduced in January 2009. The OpenTablet is configured with an integrated basestation for recharging, a portable, wireless tablet for accessing the Internet, as well as an integrated cordless DECT handset.

Figure 7. OpenTablet IP Media Phone

Source: OpenPeak, 2009

The icon-driven color display unit, very similar in appearance to the iPhone, supports VoIP calling, and easy access to voicemail, and email. Consumers can also use the OpenFrame to maintain a family calendar and access online text files, such as recipes. In the future, OpenPeak plans on integrating the device more closely with service provider network services, to support functions such as a universal remote control and an always-on portal for managing home security or home automation applications. OpenPeak has released an applications programming interface (API) for third-party application development. Applications are written in Adobe Flash. Table 2 summarizes the devices' hardware features and broadband applications.

Table 2. OpenFrame IP Media Phone Features

OpenFrame IP Media Phone
Hardware
Cordless PSTN handsets (up to 4)
7" color, touchscreen display w/ Intel Atom processor
Wi-Fi-enabled BB base station
Speakerphone
BB Applications
VoIP calling
Calendar
MP3 music player
Streaming news/weather/stock quotes/sports
Personal address book
Sirius radio
Access to stored online files (recipes, etc.)
Alarm/clock
Digital picture frame
Directory services (Yellowpages)
Videos/images (YouTube, Flickr, movie trailers)
Voice mail, email
Forwarding of content to mobile handsets
Home automation/control (future)

Source: OpenPeak, 2008

The cordless handsets use the DECT protocol for connectivity directly to the OpenFrame. All voice sessions are routed over the home broadband connection using IP technology. In the US, DECT operates in the 1.9GHz frequency band. Unlike cordless home phones operating in the 2.4GHz or 5.8GHz frequency bands, DECT will not interfere with home Wi-Fi networks. In addition, DECT phones deliver high-quality voice and can operate up to 1,000 ft from the basestation.

In January 2009, OpenPeak introduced the OpenFrame 2.0 model, depicted in Figure 8. The OpenFrame 2.0 model is configured with a premium, hands-free speaker.

Figure 8. OpenFrame 2.0 IP Media Phone



Source: OpenPeak, 2009

What differentiates the OpenFrame IP Media Phone from other home telephones is that it employs the low-power Intel Atom processor, which is designed to deliver PC-like functionality to fan-less, broadband devices. While the OpenFrame does not have a full browser, the device can support high-definition audio and video content. It has the potential to fill a niche between more powerful PCs, netbooks, and traditional PSTN telephones.

In January 2009, OpenPeak also unveiled the ProFrame multimedia IP phone for the enterprise and hospitality markets. The ProFrame is presented in Figure 9.

Figure 9. OpenPeak ProFrame IP Media Phone



Source: OpenPeak, 2009

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The ProFrame is configured with a 7" touchscreen LCD panel, integrated handset, and power over Ethernet (PoE) connectivity to the enterprise network. The device is configured with dual Ethernet and USB ports, a Bluetooth 2.0 interface, fingerprint security, a premium hands-free speaker, as well as 1GB of Flash memory and 512MB DDR2 RAM storage. The ProFrame supports MP3 audio, MPEG2/4 video streams, SIP telephony control, SPI firewall, VPN, and TR-069 remote management.

The hospitality application package supports customization for centralized concierge services, or as an in-room device. Guests can locate restaurants, map directions, request wake-up calls, retrieve messages, or make dinner reservations. In the enterprise, executives can customize RSS feeds to provide always-on access to stock quotes, and news updates. The color display can also be used for viewing videos, accessing visual voice mail, calendars, and even customized applications, such as sales orders, and inventory reports.

LG-Nortel IP3870 IMS Phone

LG-Nortel, a joint venture partnership between Korean LG Electronics and Nortel, established in 2005, is a global supplier of business/consumer telephones and handsets. In October 2008, LG-Nortel introduced the IP3870 IMS phone, depicted in Figure 10. The term IMS refers to IP Multimedia Subsystem, a 3GPP industry standard for next-generation network call control, predominantly based on the session initiation protocol (SIP).

The IP3870 is a broadband media phone designed to support multimedia services. The device provides dedicated access to Internet applications, such as video clips and movies, news and weather information services, home banking services, and digital music. Compatibility with IMS enables a host of next-generation communication services that can include video calls, interactive video sessions, presence, user profile-based call management, and SIP-based VoIP calling.

Figure 10. LG-Nortel IP3870 IMS Phone



Source: LG-Nortel, 10/08

The IP3870 is designed with a 4.3" color display, built-in camera, SD/MMC card reader and stereo speakers. The system also includes a second cordless DECT handset. The two handsets connect to a Wi-Fi-enabled basestation that is linked to the home broadband connection. All voice calls are routed

over the broadband network using wideband VoIP technology. The system is powered by a Broadcom processor. A wireless 7" touchscreen model will be introduced in the future.

Korea Telecom has announced plans to introduce the IP3870 into the Korean residential market in 2009. No pricing or other commercial details have been released.

Touch Revolution

Touch Revolution is a developer of touchscreen devices. In January 2009, the company announced the NIMble Device Management Platform. The platform will permit the design of customized IP media phones for service providers, under private-label supply agreements. A prototype of the NIMble is depicted in Figure 11.

Figure 11. Touch Revolution NIMble IP Media Phone Prototype



Source: Touch Revolution, 2009

The NIMble platform supports devices with 4.3", 7" and 10" color, touchscreen displays, stereo speakers, and a 2MP camera. The family of devices is configured with a 600 MHz StrongARM processor, 128MB DDRRAM and 512MB Flash memory. The platform also supports Wi-Fi, Bluetooth, USB, and Ethernet interfaces. Similar to other IP media phones, consumers can use these devices to view digital pictures, Internet video content, news updates, and weather forecasts. Consumers can listen to downloaded MP3 music, online radio, and access voice, data and video communications, including address books, email, and SMS messages. The devices can also be configured with a voice answering machine.

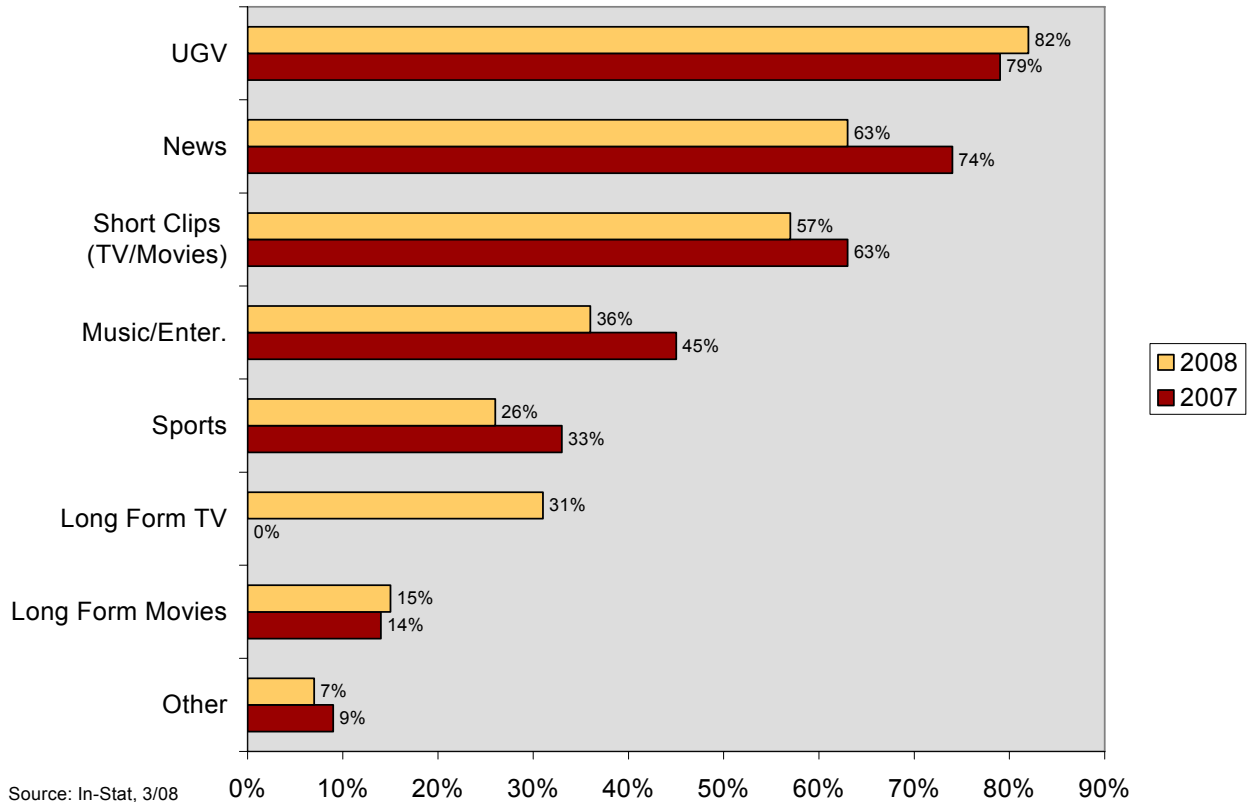
The NIMble Device Development Platform will be commercially introduced during the second half of 2009.

Consumer Wireline Services, Today and Tomorrow

The mass adoption of broadband Internet-access services has placed an almost infinite amount of information just a few clicks away. Figure 12 provides insight into the types of Internet content consumed by US broadband households. The data confirms that the majority of consumers regularly use their broadband connections to view user-generated content (e.g., YouTube videos), online news (including sports and weather information), as well as TV and movie promos/trailers. These all involve

relatively short sessions conducive to streaming data, with minimal user interaction. The media phone is perfect for this type of applications.

Figure 12. Types of Content Accessed From the Internet



In contrast to broadband services, wireline voice services have changed very little over the past 25 years. The last significant innovation relating to PSTN voice services was the introduction of caller ID in the mid-1980s. Not surprisingly, consumers are rapidly abandoning wireline voice services in favor of mobile services, or VoIP. Wireless replacement of fixed telephone lines in the US is estimated to be around 18%. In Scandinavian countries, over 50% of consumers now use exclusively mobile telephony services.

In France, wireless replacement has peaked at approximately 14% of total households. This is in part because VoIP service is offered at minimal or no charge with a broadband subscription. Over 50% of broadband households in France currently use VoIP services. At the end of 2007, there were 18.5 million VoIP subscribers in the US, 39 million in Europe, and over 94 million total VoIP subscribers worldwide. To date, most consumer VoIP services offer very similar functionality to legacy PSTN services, but at cheaper rates.

To minimize wireless replacement, next-generation consumer wireline services will not only introduce new communications features and applications, but will deliver added value through service integration. The following are examples of next-generation network features and functions.

- User profile: defines the services, and features a user has access to, as well as the types of devices (and their capabilities) that are active, call routing instructions, and other personal account information.
- Presence: identifies the current state of a user's devices (active/deactivated) for use by others who wish to communicate with them. A person's availability will be known prior to making a call, thereby permitting the caller to leave a message, request an automatic callback when the called party becomes available, or communicate with the called party via other means (email, text message, or SMS).
- Device: independent operation—the same set of network services, features, user profile, and presence information can be accessed via multiple device types, including the PC, laptop, mobile handset, and home media phone. Content can be ordered from one device and downloaded to another device. Set-top boxes and appliances can be controlled from remote devices.
- Unified, network-based address book: a single network-based address book will be accessible from the PC, laptop, mobile handset, or home media phone.
- Unified messaging: users will access voice, data, and video messages from a single network-based messaging center from any device. Messages can be replied to via alternative media, such as a voice message reply using text messaging.
- Single sign-on/off: the user will sign on only once to the network. The network will automatically authorize and authenticate the user when a new device is turned on, or selected third-party applications are initiated.
- Multi-screen services: fixed and mobile integrated voice/data services, as well as TV/PC/mobile integrated services will deliver a common set of features, functionality, and content across multiple devices and screen types.

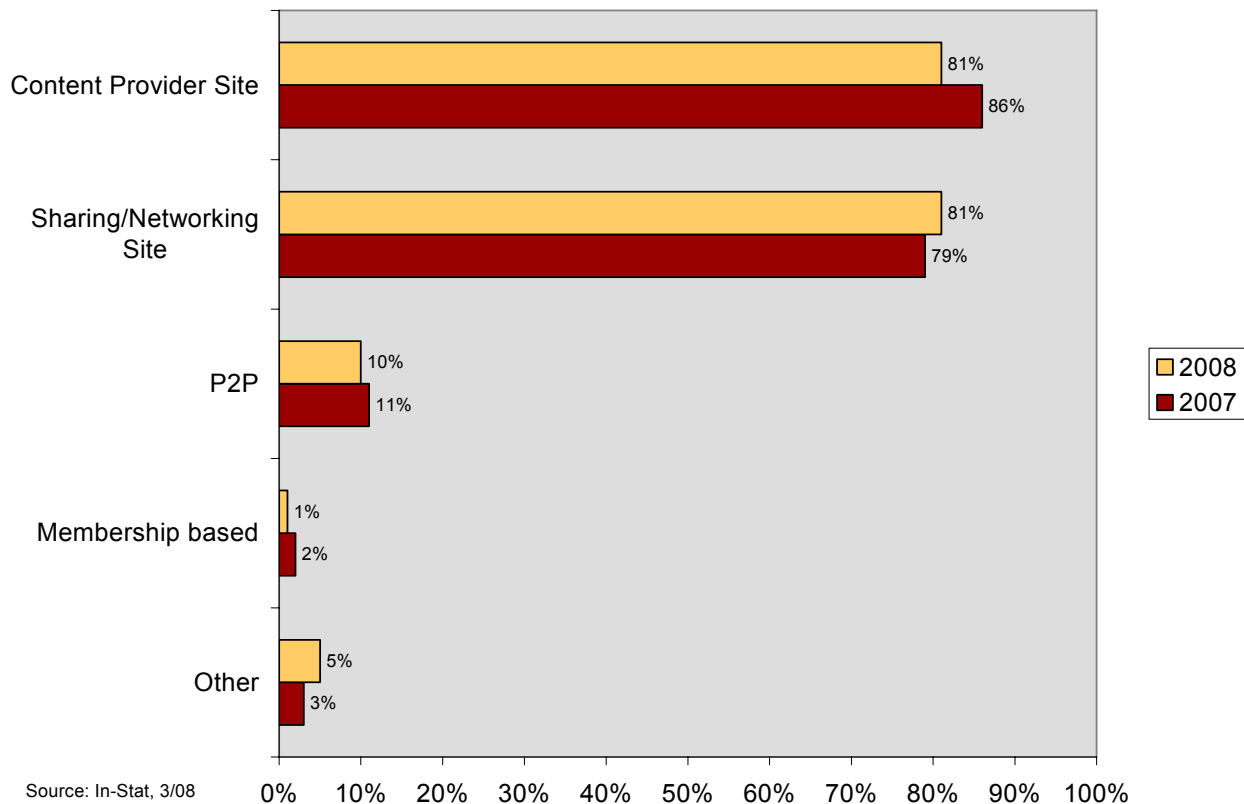
The commercial success of these next-generation consumer services will depend on ease of use. The home PC, laptop, or mobile handset will all be used in conjunction with these services. However, none, except the media phone, are optimized for simple and easy access to user profiles, network address books and unified messaging centers. Media phones that are branded and designed to work intimately with a specific operator's next-generation consumer network services, have the potential to deliver value that is far greater than the sum of today's separate fixed and mobile services.

Another step in the evolutionary path is the incorporation of web services to next-generation network service portfolios. This envisions the wireline operator as the provider of managed services, offering consumers a guaranteed quality-of-service (QoS). The operator will serve as a gateway to network-based and Internet-based content, delivering a consistent user experience over multiple devices and screen types. The operator would also serve as a trusted partner, handling sign-on/off to a user's

favorite Internet applications (such as MySpace, Facebook, etc.), and supporting online purchases from local stores and restaurants (e.g., pizza delivery).

Figure 13 confirms that US broadband consumers strongly favor the acquisition of professional video content from content providers and network sharing sites, rather than from peer-to-peer alternative methods. Operators can offer substantial consumer value by delivering easy access to integrated communication services, and popular Internet-based content, with a guaranteed high-quality user experience.

Figure 13. Video Content Sources



Operators envision these next-generation network and web services to be supplied via personal web pages. Similar to ISP web pages or personal Internet-based web pages that can be constructed today, consumers will customize a web page to accommodate their unique set of communication services, information needs, and favorite Internet applications. For example, a users' personal web page might provide access to their user profile, address book, and messaging center, along with access to information pages for news updates, sports scores, and weather forecasts. The personal web page could also automatically provide direct access to the week's top 10 YouTube videos, and single sign-on to the MySpace social networking or Flickr photo storage/sharing sites.

The PC, laptop, and mobile handset can be used to access next-generation personal web pages. However, media phones can be optimized specifically for these next-generation network/web service

applications. Having such a device available will help guarantee that consumers realize the benefits that these next-generation services offer.

Over-the-Top Internet Providers

Except for network access services, everything that wireline operators offer, in terms of next-generation features and functionality can be supplied online by over-the-top Internet providers. In fact, many of these capabilities are being offered today.

Internet applications are being augmented by communications capabilities, such as messaging and click-to-call voice features. Google's Android operating system is targeted at extending the home Internet experience into the mobile world. There are even start-up web portal operators, such as TeleCentris and GooberNetworks that integrate fixed and mobile communications and social networking through the equivalent to personal web pages.

To date, over-the-top Internet application service providers (ASPs) rely on the home PC, or laptop, as the primary access device. Yet, the consumers' disdain for making voice calls over the PC is well documented. In-Stat research indicates that only 10% of US broadband users make voice calls over the PC. To attain wide-scale adoption, these ASPs will require a home broadband device, such as the media phone, that is optimized for voice communications, as well as Internet content consumption.

Supplier Push

Rarely do consumers perceive a need for products before they are created. And rarely are telecom operators successful in selling products and services that are not vital to meeting their corporate objectives. Therefore, wide-scale adoption of media phones will require that service providers have a vested interest in seeing that these devices are deployed. In other words, media phones need a supplier push.

A key point is that deployment of the media phone cannot be tied, even remotely, with the cannibalization of existing service provider revenue. For example, US wireline operators have been very slow to embrace VoIP services because it cannibalizes existing high-margin PSTN voice revenue streams. Even the US cable operators market *digital telephone service*, rather than using the term VoIP, so as not to emphasize the new technology. In-Stat research indicates that only 8% of US broadband households have an IP telephone, with another 9% using an analog telephone adapter (ATA) in conjunction with VoIP service. Worldwide, there were a pathetic 780,000 consumer IP phones shipped in 2007. For most consumer households worldwide, VoIP simply represents cheaper long distance calling rates.

So as not to cannibalize existing service provider revenues, media phones will be marketed in association with premium FTTx broadband services/bundles, and/or other enhanced next-generation network services, including virtual VoIP services. Media phone features and functions will be built to support each service provider's strategy and needs. For example, AT&T is using the AT&T HomeManager to promote U-verse broadband service adoption, independent of voice services. For this reason, the HomeManager has been designed to support both VoIP and analog voice telephone services, thereby leaving voice service subscriptions to the discretion of the consumer. Verizon will

promote its media phone in association with its virtual VoIP service, as well as its national mobile calling plans. For this reason, the Verizon Hub will support only VoIP connectivity.

To realize the benefits that media phones can provide, service providers must achieve wide-scale adoption. AT&T is subsidizing the price of the HomeManager in exchange for a two-year U-verse broadband Internet service contract. Verizon is pursuing a similar strategy, by setting the Hub's retail price at \$249 (initially subsidizing about \$250 per unit) and offering a further \$50 customer rebate in association with a two-year VoIP service contract. These strategies can only be successful if the perceived value of the media phone is greater than the perceived costs and restrictions of the service contract.

In Europe, incumbent wireline operators, who are deploying NGNs much more aggressively than US operators, see media phones as a key element in their all-IP services strategies. These operators plan on introducing VoIP-enabled consumer media phones in conjunction with their IPTV, mobile and wireline broadband services. They will use media phones to introduce consumers to an all-IP home communications experience, based on next-generation, converged fixed and mobile network services. The media phone will create a separate and distinct user experience from that of the PC, mobile, and IPTV screens.

European service providers see the media phone as a home broadband device, with Wi-Fi or WiMAX-enabled frames and handsets. Rather than delivering operator-owned information services, European operators plan on offering direct access to the Internet. Media phones will offer consumers always-on access to their choice of streaming news or weather services, as well as one-touch access to user-specified Internet portals for social networking, or recipes. Operators will add value by guaranteeing a consistent user experience, as well as supporting parental controls and other security policies not typically supported by independent web applications. In the future, media phones will be managed devices, permitting operators to remotely monitor, and upgrade device software. To ensure wide-scale adoption, European operators will, at least initially, subsidize all or a major portion of media phone retail prices.

Mobile and Internet operators will also seek to leverage the appeal of media phones to promote virtual services. For example, mobile operators may introduce media phones that are compatible with femtocells in order to promote the sale of in-home mobile and virtual services routed over the wireline broadband connection to the mobile network.

With the introduction of next-generation consumer services, media phones will become a core element of the broadband service bundle. Media phones will be the means by which consumers access integrated network and web services within the home. This will tightly link the deployment of media phones directly to the success of next-generation network services.

Established Distribution

Distribution channels are another key element to the success of media phones in the consumer market. Consumers seeking to take the VoIP plunge quickly find that there are very few retail outlets offering a wide selection of IP telephones for sale. In the case of Verizon and AT&T, both companies have a nationwide base of wireless retail stores that support wireline services and devices, as well. European incumbent operators will also support media phones through their existing mobile retail outlets.

For other service providers, the lack of company retail outlets may pose potential problems. These wireline operators (including independent operating companies and cable operators, as well as Internet ASPs), will depend on existing consumer electronics retail outlets, or online purchases. It will be important that media phones sold through these channels be generic products that can be integrated with specific network services through downloadable soft-clients.

The 4th Screen in the Home

The average US broadband household is equipped with a Wi-Fi router for networking PCs and printers, three television sets (at least one being an HDTV), as well as multiple mobile handsets (more and more with 3G mobile broadband access). PC, TV, and mobile handset devices represent the three screens that have fundamentally changed our lives. The media phone has the potential to deliver similar lifestyle changes; becoming the 4th screen in the home.

To achieve this vision, consumers must view the media phone as a new category of broadband devices. Media phones must be viewed as separate and distinct from traditional home telephones, personal computers, and mobile handsets. Terms, such as convenience, simplicity, and usability will define the media phone, as much as new technology and applications. Media phones will complement the other three screens, not compete with them.

Media phones must have broad consumer appeal. For younger adults that may never have owned a fixed-line phone, media phones must offer access to innovative and compelling new broadband applications. Much like Apple has proved with its iPhone, a plethora of third-party developed applications can help attract and retain a steady stream of enthusiastic (and profitable) users.

For older adults, the media phone will be a phone-like alternative to computers for accessing online information. Simpler to use, greater convenience and always-on operation will be important selling points for adults that traditionally have used a home telephone.

Yet, in countries with a long tradition of wireline voice services (such as in North America and Western Europe), the success of the media phone will hinge largely on delivering a new generation of converged communications services to the home. The integration of the broadband, wireline voice, mobile voice, and TV networks will deliver services of higher value than today's separate services. Converged network services will cement the media phone as an indispensable 4th screen in the home.

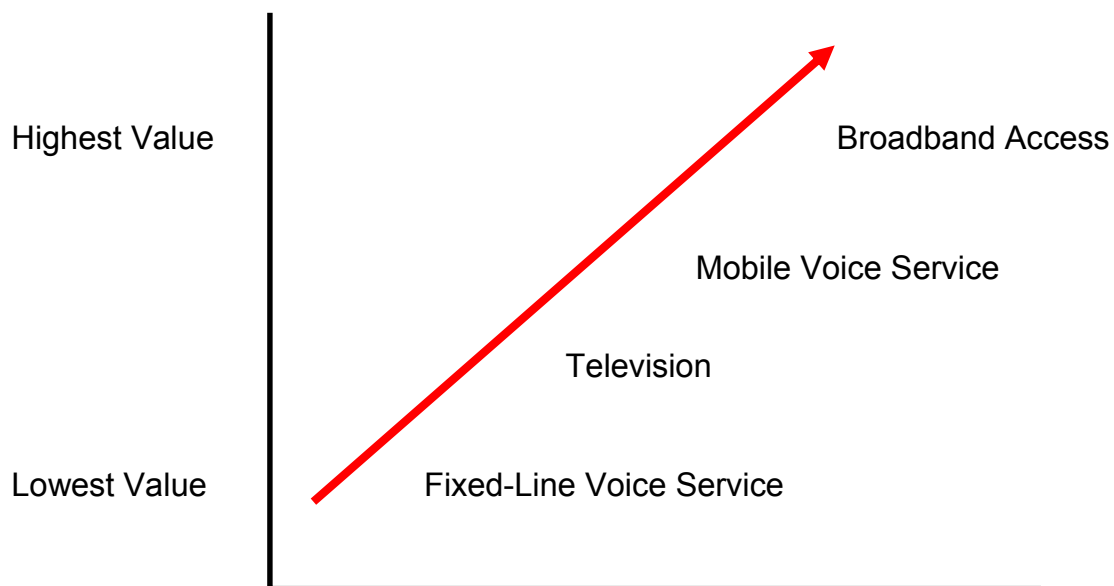
Consumer Media Phone Market Analysis and Forecast

Market Analysis

It's All About Value

All consumer network services are not valued the same. In-Stat research, conducted in 2007, queried consumers regarding which network services they could least live without. Figure 14 illustrates the perceived relative value of network services among US broadband households. Broadband access was by far the most valued service, followed by mobile services. Fixed-line voice services were valued the least.

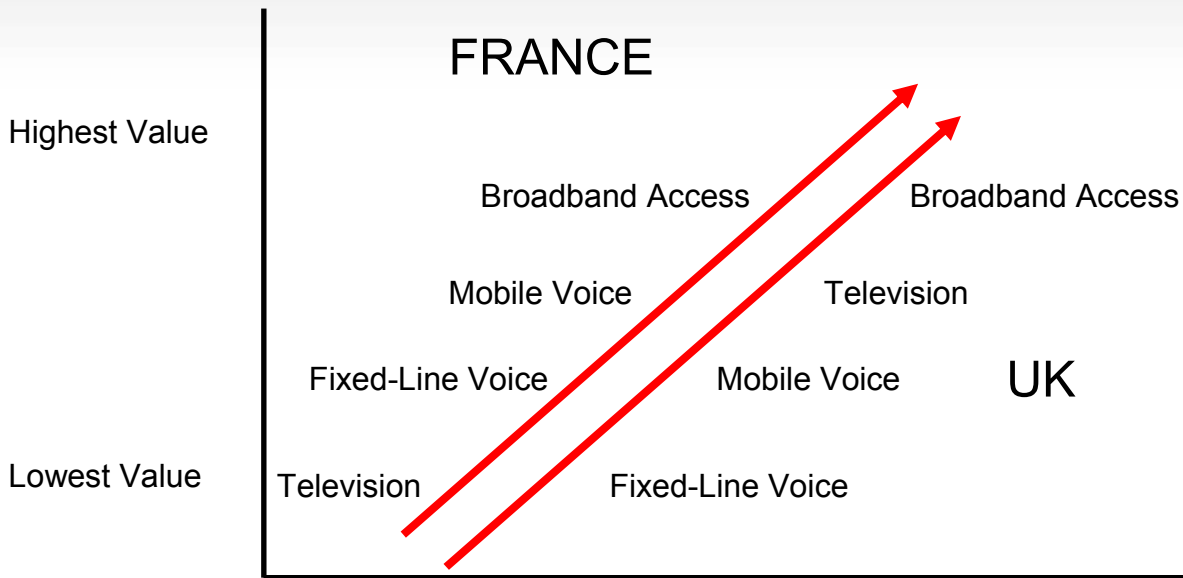
Figure 14. Value of Services to US BB Consumers



Source: In-Stat, 8/07

Figure 15 presents the findings from an In-Stat survey of broadband households in the UK and France. When asked the same set of questions as US broadband households, once again broadband access proved to be the most valued service, with PSTN voice service perceived as providing low value.

Figure 15. Consumer Value From Network Services in the UK and France



Source: In-Stat, 8/07

Service providers are not especially keen on enhancing PSTN voice services, largely because of regulation. Operators wish to free themselves from the heavy burden of legacy telecom regulations. This explains why service providers are using media phones to promote their entry into Internet-based information services, and next-generation all-IP communication services, rather than enhancing the legacy PSTN. Yet, consumers will not adopt media phones unless they offer real value.

Consumers Prefer Devices Optimization

The continued popularity of iPods, in direct competition with a multitude of MP3-enabled mobile handsets, is proof that consumers prefer devices that are optimized for specific functions. In-Stat research has also shown that consumers will gladly purchase video-on-demand (VoD) content to watch on the TV screen, but have little desire to order pay-per-view content for their PC or mobile devices. In contrast, consumers appear very eager to extend their social networking activities from the home PC to mobile devices, but not to the TV screen.

What differentiates the media phone from other home devices is its dedicated access to Internet-based information. Always-on access to news updates and weather reports will be a strong driver of consumer adoption. Consumers have become addicted to 24-hour news and weather channels. Yet, neither TV nor Internet sites can offer one-touch, instant access to information. The media phone can.

Table 3 presents US consumer broadband household interest in media phones, by age. Overall, approximately a third of US broadband households indicated they were extremely or very interested in using a media phone. Another third of the households were somewhat interested. Younger adults indicated higher interest in media phones than older age groups.

Table 3. Interest in Media Phones Among US Consumer Broadband Households, by Age

How interested would you be in using a media phone in your home?	18-24 n=156	25-29 n=151	30-34 n=154	35-39 n=140	40-44 n=121	45-49 n=102	50-54 n=71	55-64 n=60	65+ n=50
Extremely/very interested	52.0%	40.4%	39.0%	27.1%	31.4%	20.8%	15.5%	11.7%	8.0%
Somewhat interested	33.3%	31.1%	30.5%	33.6%	38.0%	30.7%	36.6%	25.0%	34.0%
Not very/not at all interested	14.7%	28.5%	30.5%	39.3%	30.6%	48.5%	47.9%	63.0%	58.0%

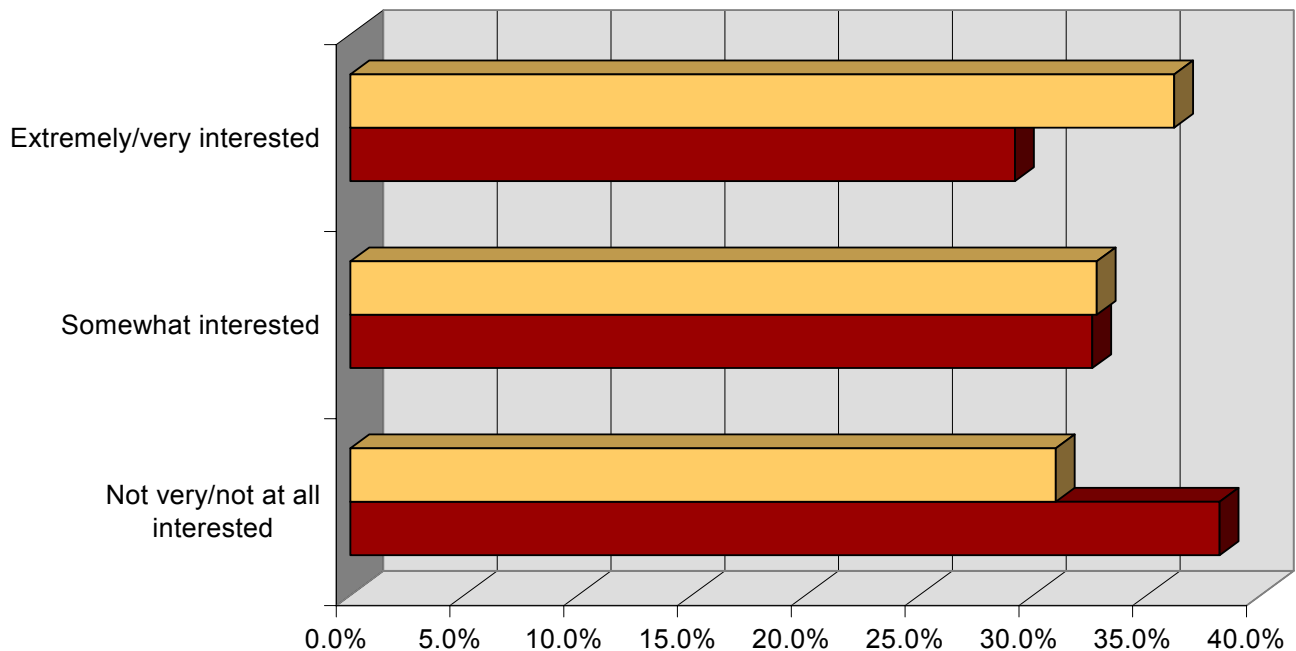
Source: In-Stat, 12/08

n=1,005

The survey data follows a typical, and very predictable, trend for most new products and technologies. However, In-Stat believes that service providers can successfully elevate consumer interest among older age groups. The above-40 (years of age) crowd tend to favor home telephones, and are avid readers of news, weather reports, stock quotes and recipes. The media phone takes these broadband applications out of the PC world and brings them into the more familiar world of the telephone.

Figure 16 presents consumer interest in media phones, segmented by households that subscribe to fixed-line voice services and those that do not. The data confirms that interest in media phones does not correlate to the use of existing fixed-line voice services. Thus, the media phone may successfully attract new subscribers (especially younger adults) that have never owned a home telephone.

Figure 16. Interest in Media Phones by Households With/Without PSTN Voice Service



Source: In-Stat, 12/08

■ Fixed Line ■ No Fixed Line

N= 998

Alternative Products Abound

Current media phones do not offer many unique features and functions. Consumers can get news and weather updates from the home PC, laptop, TV, or mobile handsets they already own. Portable netbook devices (some with a 7" touchscreen) support messaging and access to Internet-based information services with a battery life of up to 8 hours. Netbook prices have recently dropped to the \$300 range. AT&T Mobility has gone one step further by promoting \$100 netbooks from RadioShack (Acer AspireOne) and Dell (Inspiron Mini 9), in association with a 2-year Laptop Connect mobile service contract (and a \$60 per month service fee).

Digital picture frames, most using a 7" screen, retail for approximately \$100. These devices can display images, operate slide shows, and offer functions such as a calendar, alarm clock, and home messaging center. In November 2008, T-Mobile announced the introduction of the T-Mobile Cameo, a picture frame with its own cellular modem, which can receive photos directly from mobile phones. There are even electronic cookbook devices (also using a 7" touchscreen frame) that retail for around \$130.

In December 2008, the *USA Today* newspaper announced a new Apple iPhone application. The free iPhone application emulates the look and feel of the newspaper's print edition, offering mobile access to news headlines, interactive polls, GPS-enabled weather updates, and photos. The *USA Today* application will support enhanced mobile advertising formats that include click-to-call and click-to-maps using the user's GPS location and video.

The wide variety of alternative products means that broadband applications, alone, cannot be a media phone differentiator. Media phone retail prices need to be in the \$150 range (or less if linked to network service subscriptions) to compete with these product alternatives. Until media phones are manufactured in volume, this dictates that service providers will need to subsidize retail prices.

Device Location Dictates Applications

The location of the media phone in the home will also define the applications that consumers value. For instance, consumers that install a media phone in the kitchen may want access to online recipes, whereas media phones located in the bedroom may make greater use of an alarm clock, MP3 player, or a TV electronic program guide (EPG). Media phones operating in the family room may be used primarily for communication purposes, as well as news updates.

Table 4 presents the location preferences for using media phones among US consumer broadband households, segmented by age group. The living room and home office are clearly the preferred locations, followed by the bedroom. This data once again suggests that consumer views of the media phone are consistent with traditional uses of the home telephone.

Table 4. Home Location Preferences for Using Media Phones, by Age

If you were to have such a device in your home, which room in the house would you use it most?	18–24 n=156	25–29 n=151	30–34 n=154	35–39 n=140	40–44 n=121	45–49 n=102	50–54 n=71	55–64 n=60	65+ n=50
Living room/TV room	41.4%	48.1%	43.9%	38.8%	34.5%	44.2%	27.0%	50.0%	23.8%
Study/home office	19.5%	25.9%	25.2%	31.8%	28.6%	23.1%	37.8%	45.5%	61.9%
Bedroom	28.9%	16.7%	17.8%	14.1%	14.3%	19.2%	5.4%	4.5%	0.0%
Kitchen	7.8%	6.5%	8.4%	9.4%	16.7%	7.7%	18.9%	0.0%	14.3%
Other	0.8%	0.0%	2.8%	2.4%	2.4%	1.9%	0.0%	0.0%	1.0%
Not sure	1.6%	2.8%	1.9%	3.5%	3.6%	3.8%	10.8%	0.0%	0.0%

Source: In-Stat, 12/08

n=1,005

Device location in the home may also determine the preferred media phone design. Table 5 identifies consumer preferences for varied media phone device types. One might predict that wired devices would be preferred for the bedroom, whereas portable units may be favored in the family room. However, the consumer survey data confirms a very strong preference toward wireless media phones designed much the same as mobile handsets. Younger adults favor devices that use external chargers. This suggests that the media phone will be used in multiple rooms of the house. Older adults favor devices with a cradle for automatic recharging (like a cordless phone), suggesting that media phones will be used within a single room. The term corded device in Table 5 references a typical wired telephone connection, with or without a cordless handset.

Table 5. Media Phone Device Preferences

If you were to have such a device in your home, which of the following types of devices would you prefer?	18–24 n=156	25–29 n=151	30–34 n=154	35–39 n=140	40–44 n=121	45–49 n=102	50–54 n=71	55–64 n=60	65+ n=50
Wireless device requiring charging	67.2%	66.7%	53.3%	55.3%	57.1%	55.8%	56.8%	36.4%	33.3%
Wireless device w/ charging cradle	31.3%	30.6%	42.1%	43.5%	39.3%	42.3%	40.5%	50.0%	61.9%
Corded device	1.6%	2.8%	4.7%	1.2%	3.6%	1.9%	2.7%	13.6%	4.8%

Source: In-Stat, 12/08

n=1,005

Content Is King

Service providers must also remember that the value that always-on access to the Internet offers can vanish if the information content being delivered is too limited or found lacking. The AT&T HomeManager offers always-on access to proprietary AT&T information services (news, weather, and recipes), rather than popular Internet information portals, such as MSNBC, or the NYTimes online. News articles are collected from the Associated Press and updated throughout the day. However, local news and editorials are not available. The AT&T service also includes access to a proprietary set of online recipes. Recipes have the potential to be an extremely popular application, but only if recipes of interest can be easily located. A week after celebrating the Thanksgiving Day holiday, AT&T was still offering turkey and stuffing recipes. Failure to update recipe information frequently will detrimentally affect user satisfaction.

The bottom line is that if service providers decide to offer their own information services, then these services must be best of breed. A better alternative may be to permit the user to access their preferred sources of online news, weather, and recipes. Why reinvent the wheel if you don't have to?

Target the Mass Market

Most of the new products and technologies being introduced today are geared towards young adults; the so-called the millennial generation. What is unique about the media phone is that its value centers on applications with broad appeal. Figure 17 confirms that viewing online news, downloading MP3 music, instant messaging, and sharing digital pictures are activities performed daily by US broadband households of all ages. By targeting applications such as these, media phones, and their associated broadband services, can achieve mass market adoption.

Figure 17. US Broadband Consumer Household Activities, by Age

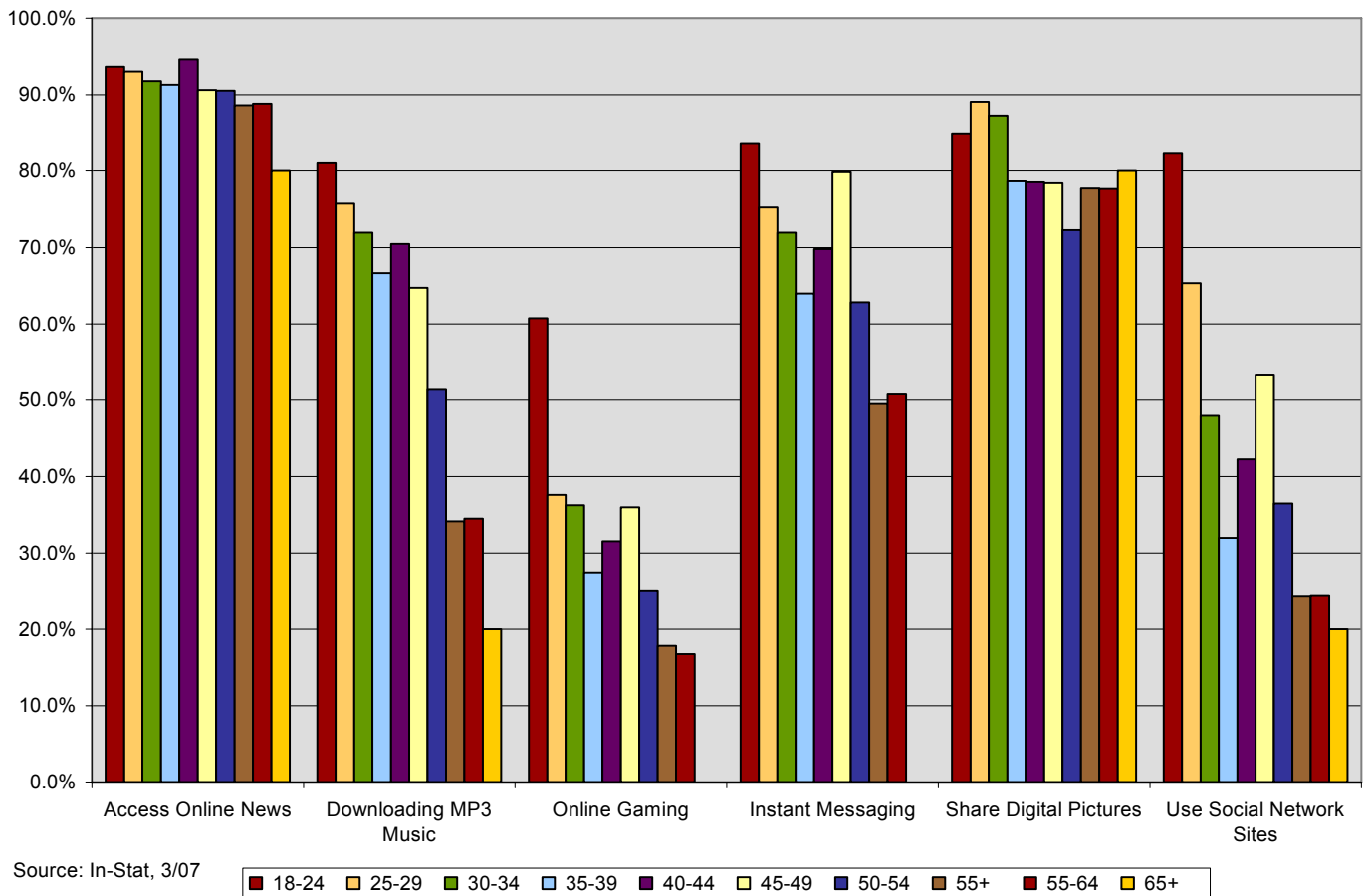


Table 6 presents the perceived value of various media phone functions and applications. The data confirms that US broadband households consider media phones to be first and foremost—a phone. Even younger adults, many of which live on their laptop computers and netbooks, view communications as the main reason for operating a media phone. Interestingly, despite nearly 90% of broadband homes regularly accessing online news and information, relatively few households indicated they would prefer to use the media phone to access customized information pages. Furthermore, US consumers of all ages showed very little interest in using the media phone for social networking or online purchases. These survey results should not be viewed as a lack of consumer demand for media phone

applications, but rather the lack of pent-up consumer demand. Once consumer awareness increases, demand will most likely follow.

Table 6. Perceived Value of Media Phone Functions, by Age

Which of the following functions would be most useful?	18–24 n=156	25–29 n=151	30–34 n=154	35–39 n=140	40–44 n=121	45–49 n=102	50–54 n=71	55–64 n=60	65+ n=50
Communications	59.4%	58.3%	60.7%	64.7%	46.4%	61.5%	67.6%	31.8%	33.3%
Viewing video content	14.1%	16.7%	13.1%	12.9%	20.2%	13.5%	21.6%	18.2%	33.3%
Customized info pages	10.2%	10.2%	9.3%	8.2%	9.5%	3.8%	0.0%	9.1%	0.0%
File storage	3.9%	5.6%	5.6%	7.1%	8.3%	7.7%	5.4%	22.7%	19.0%
Accessing social networking sites	9.4%	5.6%	7.5%	2.4%	6.0%	11.5%	2.7%	4.5%	0.0%
Local purchases	3.1%	3.7%	3.7%	4.7%	9.5%	1.9%	2.7%	13.6%	14.3%

Source: In-Stat, 12/08

n=1,005

Broadband for Non-Computer Users

Another potential benefit that media phones may provide is its ability to bring the online world to non-computer users. The problem for service providers is that the number of new households that value broadband highly is dwindling. Consumers that do not own a computer, or do not surf the web, regularly tend to place a low value on broadband access. Service providers have introduced tiered broadband pricing to attract infrequent, dial-up users, but, to date, there has been little to attract non-computer users.

Media phones may be a vehicle to sell broadband services to households without a PC. The combination of phone-like dedicated network access, as well as touch-screen access to news, weather and other Internet-based information, may be the perfect solution for households with minimal, or no PC usage. As more and more newspapers and magazines go out of business, older adult households may be willing to adopt the media phone as an alternative source of news and information.

Market Forecast

Forecasting the emerging media phone market is extremely difficult because of all the variables impacting demand. It makes common sense that fully subsidized media phones will be much more in demand than those selling at high prices. Broadband bundle rates, contract terms, customer service, and the quality of the broadband content itself can all have a hugely positive- or negative-impact on market success. Nevertheless, the following represents In-Stat’s view of the media phone market prior to wide-scale product rollout.

Two unit shipment forecasts have been developed for each geographic region, based on full subsidization and partial subsidization of media phone device costs to the end user in exchange for a multi-year service contract. The fully subsidized forecast model assumes a retail price from US\$0–\$100 dependent on network service subscriptions and contractual commitment. The partially subsidized forecast model assumes a retail price of US\$200 per unit over the five-year forecast period and reflects a global recession for 2009 and 2010.

Both forecasts are based on service providers successfully differentiating media phones from alternative products. Network operators must offer media phone applications targeted at older adult

age groups, such as information services, digital photo storage and sharing, and recipe/file storage applications. All applications must be high-quality and competitive with web-based alternatives. Most importantly, consumers consider the media phone to be a phone. Integration with wireline and mobile network services is mandatory.

The living room and home office will be the primary locations for media phones within the home. Highly portable wireless media phones will be preferred by young adults, whereas cradle-based designs will be favored by older adults.

All forecasted unit shipments represent consumer media phone systems. DECT handsets included in the system are not factored into the forecast shipments.

North America

The US media phone forecast is based on the following market assumptions:

- US and Canadian tier 1 mobile operators will market media phones nationally, in conjunction with virtual home VoIP services.
- Media phone distribution will be primarily through online transactions and mobile retail outlets.
- Tier 1 mobile operators will offer subsidized media phones in association with a multi-year mobile and home VoIP calling plan contract, or higher-speed broadband service.
- Virtual home VoIP services will be priced equivalent to current residential PSTN tariff rates; \$10–\$20 per month. A set of popular calling features will be included in the base rate. Total monthly ARPU can be increased by providing unlimited LD calling, and supplemental calling features.
- AT&T will adjust its media phone strategy to be mobile-centric, and will introduce an updated version of the AT&T HomeManager that supports only VoIP by 2010.
- Mobile and virtual VoIP services will become integrated, using a common feature set, messaging platform, calling plans, and network-based address books.
- Nationwide marketing of media phones will force cable operators and virtual operators into the market in possibly late 2009 and 2010 with similar subsidized device promotions.
- Media phones will have a four-year replacement cycle. Service providers will provide periodic software updates and enhancements.
- Unit forecasts were calculated based on mobile subscriber subscribers and company market shares.

Table 7 presents the 2008–2013 fully subsidized media phone unit shipment forecast for North America, segmented by service provider category. By 2013, In-Stat is predicting that over 14 million media phones will be shipped annually in North America.

Table 7. 2008–2013 North America Fully Subsidized Media Phone Unit Shipment Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	1.30	2.60	4.66	6.84	9.20
Cable	0.00	0.09	0.71	1.48	2.58	3.78
Virtual service providers	0.00	0.00	0.26	0.56	0.91	1.29
Total	0.00	1.40	3.57	6.71	10.33	14.27

Source: In-Stat, 12/08

In 2007, AT&T and Verizon added approximately 1.1 million new FTTx households. Another 2.1 million FTTx connections were added in the US by other service providers. In-Stat expects these in-region households to be purchasers of broadband service bundles that include VoIP and media phones. However, Verizon and AT&T will gain significant increases in monthly average revenue per user (ARPU) by marketing media phones in conjunction with virtual VoIP services to existing mobile subscribers, nationally.

The forecast model assumes that by 2013 there will be approximately 25% penetration rate of media phones among US consumer broadband households within the mobile subscriber base. The 25% household penetration correlates to historical penetration rates for the most popular voice telephony calling features.

Table 8 presents the partially subsidized media phone unit shipment forecast for North America. High retail prices and an extended economic recession will depress unit sales in the 2009 and 2010 timeframe. To date, North American service providers, namely AT&T and Verizon, appear to be pursuing a partial subsidization strategy. In-Stat expects that all market participants will respond quickly to market events, such as new entrants, as well as competitive pricing initiatives.

Table 8. 2008–2103 North America Partially Subsidized Media Phone Unit Shipment Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	0.65	0.87	1.86	3.13	4.60
Cable	0.00	0.05	0.14	0.32	1.03	2.32
Virtual service providers	0.00	0.00	0.10	0.25	0.41	0.58
Total	0.00	0.70	1.11	2.43	4.57	7.50

Source: In-Stat, 12/08

Europe

The European media phone market will develop in a much different manner than in North America. Rather than being predominantly mobile-centric, European operators will leverage their strength in both the domestic wireline and wireless markets. Operators are expected to promote the media phone as the primary device for accessing next-generation network services. The market assumptions are as follows:

- Two tier 1 wireline operators will introduce media phones in 2009, followed by eight other tier1 wireline operators in 2010.
- Tier 1 service providers will initially subsidize all, or a major portion, of media phone costs, in conjunction with a multi-year triple or quadruple play service bundle contract.

- All-IP fixed and mobile next-generation network services, accessible using the media phone, will be aggressively promoted within domestic markets through operator retail outlets.
- Tier 1 operator introduction of media phones and next-generation network services will force tier 2 competitive local exchange carriers, cable operators, and ISPs to offer similar product offerings in subsequent years.
- Eastern European operators will not introduce media phones until 2011, at the earliest.
- A four-year media phone replacement cycle was assumed, with periodic software updates and enhancements.
- The European media phone forecast was calculated based on a 25% penetration of domestic broadband connections by 2013.

The 2008–2013 media phone unit shipment forecast for Europe is presented in Table 9. By 2013, In-Stat is predicting that over 14 million media phones will be shipped annually in Europe.

Table 9. 2008–2013 Europe Fully Subsidized Media Phone Unit Shipment Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	0.62	2.78	6.26	8.54	11.21
Cable	0.00	0.00	0.28	0.63	0.98	1.40
Virtual service providers	0.00	0.00	0.42	0.84	1.22	1.68
Total	0.00	0.62	3.47	7.73	10.74	14.29

Source: In-Stat, 12/08

Table 10 presents the 2008–2013 partially subsidized media phone unit shipment forecast for Europe. Due to the timing of their product introductions, European operators will not be as impacted by the global economic recession as their North American counterparts. In-Stat believes the decision to fully or partially subsidize media phone costs will be driven by the status of NGN migration. For example, if Swisscom or British Telecom is on track to migrate subscribers over to their all-IP networks in 2010/2011, then promoting rapid media phone adoption will be imperative. However, if NGN migration is delayed, and competitive pressures abate, then a partial subsidization strategy will probably be favored.

Table 10. 2008–2013 Europe Partially Subsidized Media Phone Unit Shipment Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	0.06	0.56	1.88	3.91	6.73
Cable	0.00	0.00	0.08	0.29	0.39	0.67
Virtual service providers	0.00	0.00	0.03	0.13	0.49	1.12
Total	0.00	0.06	0.67	2.30	4.79	8.52

Source: In-Stat, 12/08

Asia/Pacific

The media phone market in the Asia/Pacific region will be initially dominated by a few countries, including South Korea, Japan, and Singapore. Developing countries will be slow to enter the market. Media phones will be marketed in association with next-generation network services. The market forecast assumptions for the Asia/Pacific region are as follows:

- Three tier 1 wireline operators will introduce media phones in 2009, followed by three additional tier 1 wireline operators in 2010.
- Tier 1 service providers will market media phones as broadband-only devices, as well as in conjunction with multi-year triple, or quadruple play service bundle contracts.
- All-IP fixed and mobile next-generation network services, accessible using the media phone, will be aggressively promoted within domestic markets through operator retail outlets.
- Tier 1 operator introduction of media phones and next-generation network services will force tier 2 competitive local exchange carriers, cable operators, and ISPs to offer similar product offerings in subsequent years.
- China, representing 40% of the total APAC broadband market, will not introduce media phones until 2011, at the earliest.
- A four-year media phone replacement cycle was assumed, with periodic software updates and enhancements.
- The Asia/Pacific media phone forecast was calculated based on a 25% penetration of domestic broadband connections by 2013.

Table 11 depicts the 2008–2013 Asia/Pacific fully subsidized media phone unit shipment forecast. The media phone will be introduced initially in select markets, including Japan, Singapore, and South Korea. Korea Telecom has already announced the planned introduction of an IMS-based media phone, and other competitors, including SK Telecom, are expected to follow suit in 2009.

With the exception of Hong Kong, the media phone will be used to promote next-generation, all-IP network services. In Hong Kong, PCCW has successfully stemmed the decline in PSTN lines by marketing value-added information services, many of which parallel what is available via the media phone. In-Stat predicts that following a slow initial uptake in 2009, media phone annual shipments will exceed 19 million units by 2013.

Table 11. 2008–2013 Asia/Pacific Fully Subsidized Media Phone Unit Shipment Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	1.10	2.66	5.05	9.06	14.47
Cable	0.00	0.00	0.18	0.38	1.81	3.62
Virtual service providers	0.00	0.00	0.09	0.25	0.76	1.09
Total	0.00	1.10	2.92	5.68	11.63	19.17

Source: In-Stat, 12/08

The restructuring of the telecom industry in China may create an environment where fixed and mobile communications can merge. However, it is still too early to tell whether the restructuring will create competition, or simply stabilize the previously vulnerable wireline operators. Both China Telecom and China Netcom currently view the media phone market in China to be quite small.

Cable operators are present in a limited number of Asia/Pacific countries and are often prohibited from offering VoIP services. Licensing restrictions are also a major limitation to the growth of virtual service providers.

Table 12 presents the 2008–2013 partially subsidized media phone unit shipment forecast for the Asia/Pacific region. In-Stat expects the domestic economies of Japan and Korea to rebound from the global recession by 2010. Due to regulatory policies, service providers will promote media phone broadband applications over voice services. In-Stat expects that third-party applications will drive media phone adoption, much as in the mobile device market.

Table 12. 2008–2013 Asia/Pacific Partially Subsidized Media Phone Unit Shipment Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	0.03	0.53	1.89	4.53	7.23
Cable	0.00	0.00	0.04	0.17	0.91	1.52
Virtual service providers	0.00	0.00	0.02	0.10	0.24	0.58
Total	0.00	0.03	0.58	2.16	5.68	9.33

Source: In-Stat, 12/08

Rest of World

Africa, the Middle East, and Latin America are expected to have pockets of demand for media phones, but overall adoption will be limited. The market assumptions for these regions are as follows:

- Only one tier 1 wireline operator is expected to introduce media phones in 2009, followed by three additional tier1 wireline operators in 2010.
- Tier 1 service providers will market media phones only in conjunction with multi-year triple, or quadruple play service bundle contracts.
- Media phones will be marketed in association with broadband triple play service bundles (primarily broadband Internet access, fixed-line VoIP and mobile services). Service bundles including payTV will be in the minority.
- Tier 1 operator introduction of media phones and next-generation network services will force tier 2 competitive local exchange carriers, cable operators, and ISPs to offer similar product offerings in subsequent years. However, low penetration rates will not have a dramatic impact on competition.
- A four-year media phone replacement cycle was assumed, with periodic software updates and enhancements.
- The ROW media phone forecast was calculated based on a 10% penetration of domestic broadband connections by 2013.

As Table 13 shows, In-Stat believes the interest in media phone across Latin America, the Middle East, and Africa will be low. This is largely due to the low penetration of broadband and VoIP services. Media phone deployments will be concentrated in large metropolitan areas in Latin America, as well as select Middle East countries (such as UAE and Jordan). Similar to TV services, media phones will be a premium product/service in these regions.

There are few cable operators in these geographic regions, and licensing restrictions will inhibit virtual service providers. By 2013, In-Stat predicts that nearly 900,000 media phones will ship annually in Latin America, the Middle East, and Africa.

Table 13. 2008–2013 Rest of World Fully Subsidized Media Phone Unit Shipment Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	0.00	0.05	0.09	0.37	0.58
Cable	0.00	0.00	0.02	0.03	0.08	0.15
Virtual service providers	0.00	0.00	0.04	0.04	0.10	0.15
Total	0.00	0.00	0.11	0.16	0.55	0.88

Source: In-Stat, 12/08

Table 14 presents the 2008–2013 partially subsidized media phone unit shipment forecast covering Latin America, the Middle East, and Africa. Considering the lack of broadband deployment in these regions, In-Stat believes that partial subsidization of media phones will be the favored operator strategy. In selected Latin American markets, competition may force operators to more aggressively promote (and subsidize) the deployment of media phones.

Table 14. 2008–2013 Partially Subsidized Media Phone Unit Shipment Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	0.00	0.01	0.07	0.16	0.24
Cable	0.00	0.00	0.01	0.02	0.04	0.05
Virtual service providers	0.00	0.00	0.01	0.02	0.04	0.07
Total	0.00	0.00	0.04	0.11	0.24	0.37

Source: In-Stat, 12/08

Worldwide Totals

Table 15 presents the 2008–2013 fully subsidized worldwide media phone unit and revenue forecast. In-Stat predicts that worldwide annual shipments of fully subsidized media phones will grow from approximately 3 million in 2009 to over 48 million by 2013. Over the same time period, unit costs will decline by 20% per year. Annual revenue is expected to grow from US\$1.2 billion to nearly US\$8 billion. The forecast reflects manufacturer’s revenue, rather than service provider revenue.

Table 15. 2008–2013 Worldwide Fully Subsidized Media Phone Unit Shipment and Revenue Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	3.02	8.09	16.07	24.82	35.47
Cable	0.00	0.09	1.19	2.51	5.45	8.94
Virtual service providers	0.00	0.00	0.80	1.69	2.98	4.20
Total media phones shipped	0.00	3.12	10.07	20.27	33.25	48.61
Manufacturer's per unit revenue		\$400	\$320	\$256	\$205	\$164
Total media phone annual revenue		\$1,247	\$3,223	\$5,190	\$6,810	\$7,964

Source: In-Stat, 12/08

Table 16 presents the 2008–2013 worldwide partially subsidized media phone unit and revenue forecast. Partial subsidization of device costs is expected to reduce annual unit shipments by more than 50% over the five-year forecast period. The global economic recession will essentially shift media phone adoption out in time, with high growth beginning in 2011. As a result, revenue from media phone sales will be substantially lower than under the fully subsidized market view.

Table 16. 2008–2013 Worldwide Partially Subsidized Media Phone Unit Shipment and Revenue Forecast, by Operator Type (in Millions)

Annual Shipments (in Millions)	2008	2009	2010	2011	2012	2013
Wireline	0.00	0.75	1.97	5.70	11.73	18.81
Cable	0.00	0.05	0.13	0.48	1.33	2.25
Virtual service providers	0.00	0.00	0.06	0.24	0.77	1.77
Total media phones shipped	0.00	0.79	2.15	6.43	13.84	22.82
Manufacturer's per unit revenue		\$400	\$320	\$256	\$205	\$164
Total media phone annual revenue		\$317	\$690	\$1,647	\$2,834	\$3,739

Source: In-Stat, 12/08

The full subsidization of media phone deployments, worldwide, will require an investment by service providers of more than US\$24 billion over the five-year forecast period. Assuming each unit generates a US\$35 monthly ARPU over this timeframe, media phones will generate US\$50B in positive revenue contribution (deducting subsidization costs) over five years.

The partial subsidization of media phones will require an investment of only US\$825 million over the forecast period, and will generate nearly US\$25 billion in positive revenue contribution. Based on these calculations, In-Stat believes that service providers will favor strategies that include the partial subsidization of media phones. European and Asia/Pacific operators serving relatively small domestic markets, may opt for full subsidization, especially where competition is high.

Across all geographic markets, In-Stat expects the media phone market to be very dynamic. Operators will come to recognize that the embedded base of media phone households directly correlates to their future revenue potential. Operators that build a strong base of media phone households will be able to leverage it across all their future communications, information, and entertainment services. Without a base of media phone households, operators will find it hard to attract and retain multi-service subscribers. Therefore, In-Stat anticipates that service providers will respond rapidly to media phone events, such as new market entrants, and promotional pricing initiatives. Operators will seek to

minimize their upfront investment in constructing a base of media phone households, while keeping a watchful eye on competitor's actions and market successes.

Business Media Phone Market

The business media phone market may prove to be more of an evolution than a revolution. IP phones have been deployed in association with IP-PBX systems for nearly a decade. Despite predictions of its ultimate demise, the corded desk phone continues to dominate the North American and portions of the Asia/Pacific business markets. In Europe, mobile handsets and cordless DECT phones are most common.

To assess the potential market for business media phones, In-Stat queried numerous IP PBX and IP telephone equipment vendors. While this was not a scientific survey with quantifiable results, the data offers valuable insight into how the media phone will impact future business markets.

Enterprise equipment vendors are generally positive regarding the market potential for IP end points designed with greater processing power for accessing web-based content, as well as full integration with emerging business communications applications, such as unified communications (UC). Rather than being a distinct product, with a unique set of features and functions, business media phones will represent a next-generation IP phone platform, encompassing a full range of high-end, as well as possibly low-end devices. The business media phone product segment will be driven by advancements in technology, cost reductions and most importantly, compelling benefits to both end-users and equipment suppliers.

End-User Applications

Different Form Factor

Over the years, dedicated PBX telephones (those that speak the proprietary language of a specific PBX system) have enabled hundreds of communications system features. Yet, most of these features go unused largely due to the convoluted series of access codes and special function buttons needed for their enactment. To alleviate this problem, vendors have designed phones with programmable buttons, cellphone-like menu and navigation keys, and larger display screens. There is also a trend toward displaying prompts on the PC screen (and to a lesser extent on IP phones) that guide the user through feature activation.

For example, the snom 820 model IP phone, introduced in November 2008, has been designed with a high-resolution color display, featuring an XML-driven mini-browser. The Avaya 4630SW IP phone features a 320x240 pixel, color touchscreen display with web access. Avaya acknowledges that touchscreen displays will ultimately replace current menus and navigation buttons across their entire IP phone platform. Grandstream is already marketing an IP phone designed with a 7" screen for video conferencing applications.

The business media phone will need to combine the best design characteristics of existing IP business devices, with one-touch access to communications features, as well as web-based applications and content. Table 17 presents a sampling of business media phone product requirements.

Table 17. Business Media Phone Product Requirements

Business Media Phone Product Requirements
Corded and cordless handsets models
7" color, touchscreen display, pedestal mounted
Low-power processor
High-quality speakerphone and headset connection
Up to 4 SIP-based "line" registrations
Power over Ethernet
Down-loadable client software
Remote monitoring/updating
Security
Wideband audio
Access to system/network messaging center
Programmable icons for access to communications features
Personalized RSS feeds and web applications
Message waiting indicator
Web browser

Source: In-Stat, 12/08

While the PC is Booting

One of the major attributes of the business media phone will be dedicated access to system/network features and functions. The time needed to boot the PC and log-on to the enterprise network can take 5 minutes or longer. During this period of time, workers could be receiving news updates and stock quotations from their personal web page, reviewing the day’s calendar of appointments, or responding to voice and email messages.

Among the equipment vendors surveyed, there was considerable debate as to whether this is a valid benefit. Nearly all indicated that customized dashboards and always-on access to web data is of value. However, some suppliers pointed out that workers use this time to drink coffee, or socialize before starting the daily grind. There is consensus that business media phones will not replace the desktop PC. Media phones will also need to provide more value than RSS feeds in order to win enterprise IT department approval.

Wireless IP Devices

To date, the adoption of wireless IP phones for business use has been disappointing. Wireless local area networking (WLAN) has achieved wide-scale adoption for broadband data connectivity, but businesses have been slow to use it for voice applications. As a result, the deployment of Wi-Fi-enabled phones remains miniscule.

The use of wireless handsets in specific vertical industries, such as manufacturing, healthcare, and education is nothing new. These are all environments where worker mobility dictates wireless communication requirements. In corporate environments, the use of mobile phones for daily work activities (even for office-to-office calls) is effective, but can drive up IT expenses.

The surveyed equipment suppliers all agreed that media phones need not be wireless devices. Many IP PBX systems currently support fixed-mobile convergence (FMC) devices. These are Wi-Fi-enabled mobile (dual-mode) handsets that can automatically route calls over the enterprise IP network when in

the office, and can otherwise function as a standard mobile handset. In-Stat research has concluded that the low-end SMB and SOHO markets offer more potential for business FMC services, than higher-end enterprises. Despite having proven technology, the business FMC market segment remains essentially, on hold.

Wideband VoIP

Wideband or high-definition (HD) VoIP is one of the latest innovations to hit the IP-PBX industry. The G.722 codec shrinks the voice channel bit rate to 12.65Kbps. With standard narrowband VoIP, the voice signal is sampled at 8,000 times per second, resulting in an effective voice pass-band ratio of about 200:3300Hz. The G.722 wideband codec doubles the sample rate, delivering an effective pass-band ratio of 50:7,000Hz.

High-end IP phones from nearly all equipment vendors now feature wideband VoIP. Wideband VoIP is also supported by UC systems, including Microsoft OCS, as well as IP gateway devices. As long as the communication is within the enterprise, wideband VoIP delivers noticeably superior audio quality. Unfortunately, public IP networks do not support wideband VoIP. This deficiency will not negate the requirement for business media phones to operate using the G.722 wideband VoIP standard.

Video and Telepresence

By some reports, video represents 90% of current Internet traffic. It is hard to find industry experts who do not believe that video will play a tremendous part in future business communications. Yet, ever since the 1980s, equipment suppliers have expected the video conferencing market to explode. Initially, the market failure was blamed on overly expensive equipment and the need for dedicated video conferencing rooms. IP technology has drastically reduced costs, making desktop video conferencing a reality. Technology advancements have also enhanced the quality of the user experience and with it, a new term, telepresence was born. Despite all of these developments, the telepresence market remains in its infancy. Enterprises still have road-warrior salesmen traveling the country, and frequent-flier miles remain the top perk for most workers. Where telepresence applications have taken hold is with large enterprises and government agencies requiring secure, internal communications.

Equipment vendors are marketing a wide range of telepresence systems. Most are wide-screen, conference room systems, but many also market desktop telepresence systems. To deliver high-quality video, telepresence systems typically must have integrated camera and security functions. The added functionality, and associated cost, dictates that only high-end business media phone models will support telepresence applications.

Media phones that deliver a more generic video experience will have a much broader appeal. For example, corporations could use streaming or interactive video sessions for internal communications, such as department meetings, and corporate announcements. Some collaborative applications may also require the higher performance audio and video associated with an IP PBX system, rather than best-effort Internet data connections. What is clear is that if, in the future, video is to play a significant part in business communication, integrated, desktop audio/video devices, such as the media phone, will be an absolute requirement.

Hospitality Market Segment

Another potential business application for media phones is in the hospitality market segment. Elite hotels, such as the Wynn Resorts in Las Vegas, are installing high-end IP phones in all guest rooms to match the facility's upscale decor. However, most hotels prefer to operate lower-end devices to minimize investment and reduce the risk of theft and damage. The majority of hotels currently offer guest information services via the in-room television.

A good case can be made for the need to offer improved guest services, potentially using media phones. Concierge services, such as identifying and mapping directions to nearby restaurants, making dinner reservations, or purchasing theatre/sports tickets are all activities that many guests would prefer to do themselves, if given the ability. Media phones could be deployed in public areas to offer these self-service concierge functions.

Language barriers are also a significant impediment for many hotel guests throughout the world. More and more common communication features, such as programming a wake-up call, are conducted using voice prompts. Unfortunately for most foreigners, when in Germany for example, these voice prompts are in German. If the guest does not speak the language of the voice prompt, then the communication feature is of no value. When a guest registers at a hotel, a primary language could be assigned to in-room media phones. Step-by-step instructions, in the guest's primary language, could be displayed on the screen display (rather than using voice announcements) to ensure that all hotel communications features and information services are guest-enabled.

Finally, as consumers and business travelers, alike, adopt next-generation wireless devices, such as the iPhone, guests will value, and even expect, hotel devices to operate in a similar fashion. Touchscreen, icon-driven IP devices in the home and workplace will become commonplace. Failure to keep up with the times will ultimately detract from the hotel's brand image.

Among equipment vendors, there is almost universal agreement that the hospitality industry represents a large potential market for business media phones. High-end hotels, where money is no object, will most certainly deploy media phones. Installing a few media phones in the hotel lobby to support concierge services is also a small investment. Lowering media phone unit costs will be the key to gaining in-room deployment at mainstream hotel chains.

Supplier Push

In 2007, nearly 31 million IP PBX extensions were shipped worldwide, compared to 5 million TDM PBX lines/extensions. Businesses, of all sizes, are embracing the cost reduction benefits that IP technology offers. These benefits stem largely from lower equipment costs (commercial off-the-shelf servers), the integration of IP voice and data over common network facilities (eliminating high priced PBX trunks) and reduced costs associated with adds, moves, and changes.

Businesses have chosen to deploy either an all-IP solution (such as the Cisco CallManager), where all legacy telephones are replaced by IP end points, or a hybrid solution that allows the continued use of existing TDM telephones. Naturally, the legacy PBX vendors, including Avaya, NEC, and Nortel, have leveraged their embedded base of customers by promoting hybrid IP PBX solutions. As a result, the

deployment of IP end-points lags the installation of IP-PBX extensions. In fact, during 2007, only about 40% of IP-PBX extensions were configured with an IP end point. What was initially a boon to the legacy PBX vendors is now becoming a major problem.

Table 18 presents IP phone deployments in the US by business size. Of those businesses that have deployed IP communications systems, only 50%–60% of businesses report that the majority of employees operate IP end points.

Table 18. IP Phone Deployments, by Business Size

Has your organization purchased IP phones for the majority of employees?	SMB	SME	Enterprise
Yes	65.2%	50.3%	52.3%
No	34.8%	41.7%	47.7%

Source: In-Stat, 1/08 n=372

Another slice of the same data, depicted in Table 19, shows that there has been no substantial shift towards purchasing IP end points over time. Nearly 50% of businesses that deploy an IP communications systems still opt for continued use of legacy TDM phones.

Table 19. IP Phone Deployments, by Year

Has your organization purchased IP phones for the majority of employees?	Prior to 2003	2003–2004	2005–2006	2007
Yes	51.9%	59.7%	55.1%	58.7%
No	48.1%	40.3%	44.9%	41.3%

Source: In-Stat, 1/08 n=372

Acknowledging that hardware profit margins are dwindling, PBX vendors are increasingly looking to software applications for revenue generation. Yet, selling next-generation IP-based software applications (e.g., unified communications) requires that business workers are equipped with IP end points. The problem is that standard IP telephones offer, essentially, the same functionality found on existing TDM telephones. To gain the mass adoption of IP end points that is vital to their future success, hybrid IP PBX equipment vendors need IP devices that deliver added value. Enter the business media phone.

Network service providers, marketing IP Centrex solutions, have a similar dilemma. How do they differentiate their IP communication services in a market full of competitive alternatives? Service providers are seeking to bundle CPE systems, such as multi-service business gateways (MSBGs), with next-generation business services, to provide truly unique product offerings. The business media phone once again may part of the solution.

Device Performance

When the telephone handset goes off hook, one expects to hear dial-tone; instantaneously. In fact, users expect the same performance from just about every action on the telephone. This is in stark contrast to the performance expectations of a personal computer, where a response time of multiple seconds is quite common. The high performance benchmarks of telephones, along with always-on access, will be the reason why business workers prefer to use the media phone over the PC for specific applications.

This may sound like a blessing, but in reality it is a benchmark that media phones will be hard pressed to attain. Matching, or beating the performance of the PSTN is certainly achievable. However, delivering the same voice performance on an Internet-based multimedia session will be more difficult. For this reason, business media phones performance benchmarks will need to be established in close cooperation with IP-PBX vendors, application developers, and carrier service level agreement (SLA) standards.

Branded Devices

PBX vendors have always marketed IP phones under their own private label, or brand. In recent years, exceptions to this policy have arisen. Polycom, for instance, is so dominant in voice conferencing equipment that nearly all PBX vendors proudly market the Polycom brand, in conjunction with their own. Similarly, dual-mode mobile handsets (marketed under the manufacturer brand) are being outsourced from vendors, such as Nokia, and Samsung. Even though PBX vendors are getting out of the telephone manufacturing business, third-party branded telephones will remain an exception to the rule.

All IP telephone vendors that In-Stat queried indicated that they expect business media phones to be marketed as branded products that are integrated with specific IP communications systems or network services. This response supports the conclusion that business media phones will be implemented on a platform basis, rather than as separate IP devices.

Target Markets

There is also general agreement among IP telephone vendors that media phones will have broad appeal across all sizes of business. The small to medium business (SMB) and the small office/home office (SOHO) market segments hold the highest growth potential. This may be positive thinking since the SMB and SOHO market segments have yet to embrace IP communications in a big way.

The SMB and SOHO sectors are characterized by primarily single-site businesses (1–100 employees) with a greatly varied knowledge and use of technology. The migration to IP technology has been slow, due to the lack of immediate cost savings. Operational benefits are also few and far between, with most small businesses using IP technology just as they used TDM technology.

In-Stat research has confirmed that the SMB and SOHO markets are slowly adopting IP technology, but the voice equipment replacement cycle is still between 7–8 years. As Table 20 shows, large enterprises make up 50%–60% of annual IP communication systems sales. It appears that small businesses are adopting IP technology only when they are forced to purchase new communications equipment. This might be the result of starting a new business, moving to a new location, or outgrowing the capacity of the existing system. Most small businesses are not adopting IP communications simply for technology reasons.

Table 20. The Rate of IP Communications Adoption, by Year and Business Size

	n=372	SMB	SME	Enterprise
2007	n=73	24.6%	30.1%	45.3%
2005–2006	n=175	17.8%	26.8%	55.4%
2003–2004	n=70	20.1%	32.8%	47.1%
Prior to 2003	n=53	11.2%	29.6%	59.2%

Source: In-Stat, 1/08

As the large enterprise sector becomes saturated, IP communications equipment suppliers are increasingly looking down market. To drive adoption, these suppliers must find ways of using IP technology to add value for small businesses. The media phone may be just the answer.

Leveraging Distribution Channels

Equipment suppliers know that the most valuable part of their business model is the distribution channels. Legacy PBX vendors have a large and very loyal base of value-added resellers, distributors, and system integrators. Cisco has equally strong distribution channels for enterprise data equipment. To achieve wide-scale adoption, it is imperative that media phones use these existing distribution channels. Third-party media phone developers will need to partner with IP communications suppliers to participate in the market.

Among US businesses with over 100 employees, 60% purchase IP communications equipment predominantly from VARs and system integrators. This is contrasted with SOHO businesses (fewer than 10 employees), which purchase from resellers, online, or retail outlets with equal regularity. This data confirms that multiple distribution channels will be needed to support the mass marketing of business media phones.

US network service providers will most likely leverage their mobile retail outlets to support business media phones. Outside the US, service providers typically have much closer business relationships with distributors and systems integrators.

The Purchasing Decision

When it comes to investing in communications equipment, businesses are typically perceived as being stingy; especially SMBs. Upon closer review, equipment buying decisions are based most often on operational necessity and justified on hard dollar benefits. If the need is present, businesses will buy. Unfortunately, as Table 21 indicates, convincing the vast majority of businesses to upgrade to IP technology can be a difficult task.

Table 21. 2009 IP Communication System Purchase Plans, by Size-of-Business

Does your organization plan on purchasing an IP communication system during the next 12 months?	SMB	SME	Enterprise
No	77.0%	56.9%	46.2%
Yes	11.5%	13.9%	7.5%
Don't know	11.5%	29.2%	46.3%

Source: In-Stat, 1/08

n=550

When the investment in new technology is justified, businesses typically buy mid-level to high-end devices. IP communications vendors acknowledge that the standard IP phone being sold in 2008 is priced in excess of US\$300. This suggests that by delivering a suite of value-added applications, business media phones can eventually be a very profitable product segment.

Business Media Phone Market Forecast

In-Stat has tracked the growth of the IP phone market for many years. Business media phones are expected to replace other proprietary IP end points, over time. Therefore, it is useful to forecast both the media phone and non-media phone shipments.

Table 22 presents the 2008–2013 business media phone unit forecast. In-Stat expects business media phones to capture only 2% of the business IP phone market in 2009. By 2010, most IP PBX and third-party device suppliers will be marketing multiple media phone models. By 2013, In-Stat expects that media phones will represent approximately 30% of the total IP phone market, worldwide.

Table 22. 2008–2013 Business Media Phone and Non-Media Phone Unit Shipment Forecast (in Thousands)

(in Thousands)	2008	2009	2010	2011	2012	2013
Non-media phones	13,841	15,001	16,349	19,362	23,766	29,155
Media phones	0	306	1,817	3,417	5,942	9,718
Total IP deskphones shipped	13,841	15,307	18,166	22,778	29,708	38,873

Source: In-Stat, 12/08

Table 23 presents the 2008–2013 media phone revenue forecast. Increased functionality and value will justify the investment in business media phones. In-Stat expects business media phone revenue to grow from \$153 million in 2009 to over \$3 billion by 2013.

Table 23. 2008–2013 IP Phone Revenue Forecast (US\$ in Thousands)

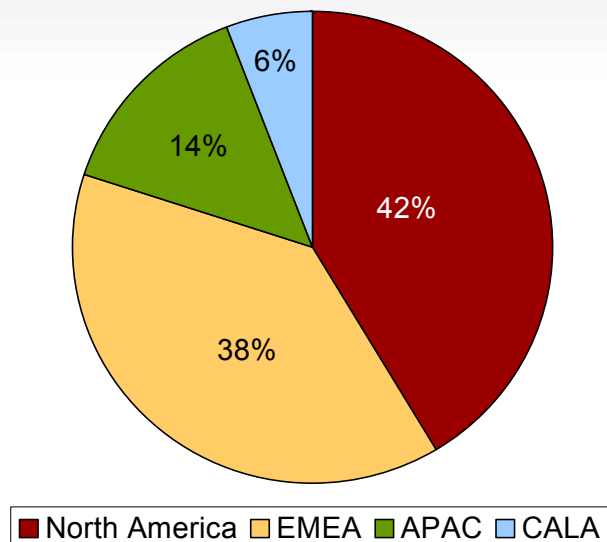
(US\$ in Thousands)	2008	2009	2010	2011	2012	2013
Non-media phone revenue	\$2,975,889	\$2,850,161	\$3,024,647	\$3,485,072	\$4,206,615	\$5,043,791
ASPs	\$215	\$190	\$185	\$180	\$177	\$173
Media phone revenue	\$0	\$153,070	\$799,306	\$1,353,028	\$2,164,624	\$3,328,132
ASPs		\$500	\$440	\$396	\$364	\$342
Total IP phone revenue	\$2,975,889	\$3,003,231	\$3,823,953	\$4,838,099	\$6,371,239	\$8,371,923

Source: In-Stat, 12/08

It is too early to accurately forecast the market potential for business media phones by geographical region. Clearly, there is strong interest in North America, Europe, and Asia/Pacific. If business media phones will be distributed through existing IP communications equipment channels, one could assume the geographic split will resemble that of IP PBX systems, depicted in Figure 18.

The economic downturn during the fourth quarter of 2008 will most likely depress the number of business start-ups and investment during 2009. In-Stat has not yet assessed the affects of this downturn on the global IP PBX market. Since the business media phone will be introduced as part of IP phone platforms (replacing existing IP phone models) and will accelerate the adoption of IP end points, In-Stat believes the overall adoption of business media phones will not be significantly impaired by lower IP PBX sales.

Figure 18. Potential Media Phone Geographic Split



Source: In-Stat, 12/07

Conclusions

After covering so many new products and technologies that fail to live up to their hype, it is refreshing to find a product that delivers value, yet has largely gone unnoticed. In-Stat research over the past two years has confirmed that consumers demand convenience and ease-of-use, most of all. Consumers love the idea of integrating fixed and mobile services, thereby eliminating multiple address books and voicemail boxes. They love it so much, that they will actually pay extra to get it! When asked if they prefer to use only mobile handsets, the answer is a resounding “No.” The missing link has been a device that can simplify access to daily broadband content, as well as enable innovative next-generation communication services. The media phone is such a device.

Businesses have also been limited by the desktop telephone. Technologies, such as unified communications, hold tremendous promise for enhancing productivity and efficiency. In-Stat research has found that the greatest barrier to achieving these benefits is that people must change the way they communicate. Convenience, simplicity, and ease-of-use are again what users demand. Business media phones will target multimedia applications that require telephone-like performance and always-on access. The future of the business media phone looks equally bright.

Methodology

This research report was developed using a wide range of primary and secondary information. Data from In-Stat primary research studies, conducted in 2007 and 2008, were used, along with information from a wide range of previously published In-Stat research reports. In addition, interviews were conducted with IP communications suppliers, network service providers, and media phone developers. Secondary data was collected from company web sites, product literature, trade journals, and other news articles.

Previously published forecasts for IP phones, IP PBX systems, broadband subscribers, consumer households, and PSTN telephones were used in the calculation of the consumer and business media phone unit and revenue forecasts.

The primary research studies included:

- Consumer Multimedia and Content, December 2008—survey of 998 US broadband consumer households
- Consumer Lifestyles, January 2007—survey of 1,240 US broadband consumer households
- Technology Adoption TAP Survey, December 2007—survey of 1,037 US business managers
- US Converged Services Survey, July 2007—survey of 1,039 US broadband consumer households
- European Converged Services Survey, June 2007—survey of 1,000 broadband households in France and the UK
- Business Gateway Survey, March 2008—survey of 237 US IT managers

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