



*Unified Messaging and
Communications:
Staying Ahead of the Curve*



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Executive Summary

To provide its customers with the best and most cost-effective messaging solutions possible, Active Voice uses modular components from Intel in its infrastructure to lay a solid foundation for its unified messaging and unified communications applications. Intel not only supplies flexible, scalable, and efficient open standards-based building blocks for Active Voice and its customers today, but also provides clear migration paths to the advanced technologies of tomorrow.

Lost Messages Mean Lost Business

Messaging has long been a critical component in the business infrastructure, and when not handled flawlessly can have serious consequences to an organization. Today, more than ever before, lost messages can mean lost sales, or even lost customers. And if messages are missed on a regular basis, a company can easily be seen as unresponsive or even incompetent, which can prove fatal in today's extremely competitive marketplace.

As messaging technologies have proliferated, staying ahead of the curve has become increasingly difficult. Adding the options of fax and email to voice messaging has made communication easier – and ironically much more difficult – since an increasing number of messages are being left in so many different places.

Active Voice Provides a Solution

Smart developers such as Active Voice quickly realized how inconvenient and time-consuming it is to check the telephone for voice messages, inboxes for email messages, and the fax machine for faxes. Why not handle all types of messages through a single interface, either on a computer, over the telephone, or via the Web? Active Voice has successfully met and continues to meet the need for unified access with its Kinesis and Repartee* solutions.

Unified Communications: The Next Step

As business people become more mobile and new technologies emerge, Active Voice continues to enhance its Kinesis and Repartee products with the latest unified communications technology. This evolution delivers real-time access to voice, fax, and email messages along with the ability to use personal calendars, contact lists, and databases from a single interface. Speech technologies and mobility features also allow quick and efficient message management. By incorporating these types of technologies into unified communications solutions, more information is available faster, with greater user control, and message management is increasingly easy.

Active Voice's Kinesis product lets users efficiently access and manage their daily communications from the PC, telephone, or Internet in a variety of ways. Kinesis offers a call control module that allows live telephone traffic to be administered from the desktop. Kinesis users can also access online calendars and listen and reply to email using the latest text-to-speech (TTS) technology. With increased message access and real-time call control, business professionals are able to quickly share information with co-workers and promptly respond to customer needs.

With the advent of its Repartee UC (Unified Communications) solution, Active Voice continues to provide its customers with solutions that use the latest technology. With Repartee UC, users can access their communications through either the telephone or computer. Repartee UC also provides powerful real-time call control functionality and desktop fax messaging capabilities. Mobile workers can access their messages through Repartee UC's TTS and speech recognition technologies, allowing for complete message management from the road.

Similarly, Active Voice's Repartee LX solution lets users access and deal with important communications from a wired or wireless telephone, and from a networked PC. For example, users can manage real-time telephone calls, as well as their voice, fax, and email messages visually from their desktop. Mobile workers can access their messages conveniently from remote locations by using enhanced TTS capabilities.

By incorporating the latest unified communications technologies into its Kinesis and Repartee products, Active Voice is well positioned to stay ahead of the curve.

Intel Helps Active Voice Provide the Latest Technology

Today Active Voice is a global provider of unified messaging, unified communications, and voice messaging solutions with over 150,000 systems in use in more than 60 countries. How has Active Voice grown so successful? Certainly a major reason is that Active Voice puts its customers first. The company's highly sophisticated applications are easy to use because they strictly adhere to the design philosophy that "you shouldn't have to adjust your style to suit a machine."

A second reason is that Active Voice builds on a solid infrastructure of telecom components from Intel, the world's largest chipmaker and a leading manufacturer of computer, networking, and communications products. By providing open, standards-based hardware components and complementary software, Intel allows Active Voice the freedom to do what it does best – aggressively create the most innovative, effective, and easy-to-use messaging solutions for its customers around the world.

Why Use Unified Messaging?

Much has been written about unified messaging and communications, but usually in studies funded by specific vendors to support their marketing efforts. Although these studies often contain solid research and pinpoint many important benefits, they carry the stigma of bias even when they are not.

Aware that unified messaging was an important new technology and eager to judge the technology as objectively as possible, Intel undertook a private 18-month study during which an internal team did all of the following:

- Researched unified messaging options
- Studied the industry
- Implemented a usage trial to establish viability and assess user reaction

After the seven-month usage trial, the unified messaging team surveyed the trial participants to help identify problems and verify the productivity gains that could be achieved through company-wide unified messaging. Details about the study and its results are available in *Unified Messaging: A case study on implementing a unified messaging solution at Intel* at http://www.intel.com/eBusiness/it/research/pp023102_sum.htm. Some important findings are summarized below.

Even though Intel did not seek to identify or recommend any specific unified messaging product during the usage trial, the results of the user survey revealed many of the same benefits uncovered in vendor-funded studies. When companies adopt unified messaging, the study concluded, costs decline and productivity grows.

User Satisfaction

Eighty-six percent of the trial participants at Intel responded to the post-trial survey, praising the saved time, increased message responsiveness, enhanced mobility, and improved communication that unified messaging provided.

Although the authors of Intel’s study felt that assigning absolute dollar values to subjective benefits is difficult, they agreed that the users’ response clearly showed an overall satisfaction with unified messaging: 92% of respondents felt that unified messaging met or exceeded their expectations.

Ease of Use

The authors of the Intel study felt that ease of use is a key factor in the success of unified messaging because of the important role it plays in the acceptance of new technology.

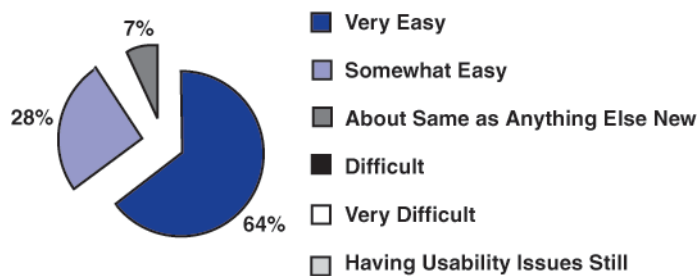


Figure 1. Ease of use results

As shown in Figure 1, 92% of respondents found unified messaging easy to use once it was in place. These numbers were based largely on the users’ ability to handle voice and email messages on their PC by using the same “email” interface with which they were already familiar.

Interface Preference

Intel's study revealed that the ability to use an email client with the graphical interface of the PC-based, email office application already in place provided an appealing alternative to phone-based messaging.

Of the users surveyed, 98% overwhelmingly preferred their PC email application as their messaging interface (rather than a telephone or PDA). These users estimated that once unified messaging was in place, they accessed voice messages using a desk or cell phone only 1% of the time. Had the users been on the road more often, however, results might have been different, pointing up the benefits of providing both a telephone and PC interface for unified messaging.

Productivity

Survey respondents cited mobility, responsiveness, and saved time as significant unified messaging benefits.

While only 6% cited improved communication, the authors of the study felt that the number was likely to increase as users became more proficient with unified messaging, taking advantage of new capabilities such as the ability to combine voice and text in the same message.

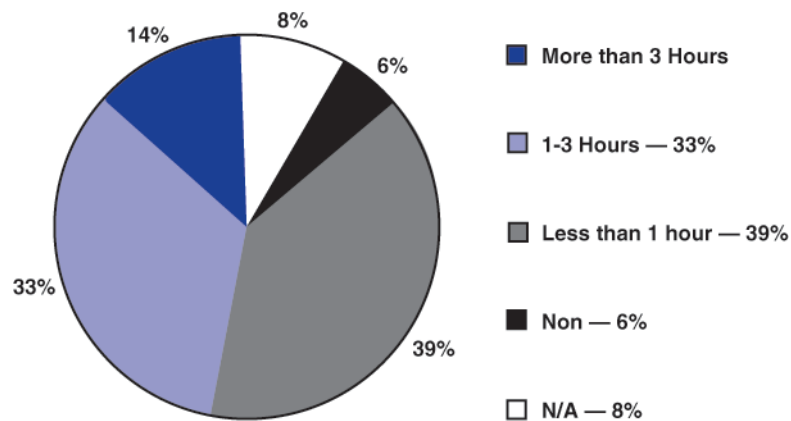


Figure 2. Productivity gains

Figure 2 depicts the productivity benefits reported by usage trial participants.

Time Savings

The survey results revealed significant time savings. Nearly half (47%) estimated saving at least one hour per week. 14% estimated that they saved over three hours per week.

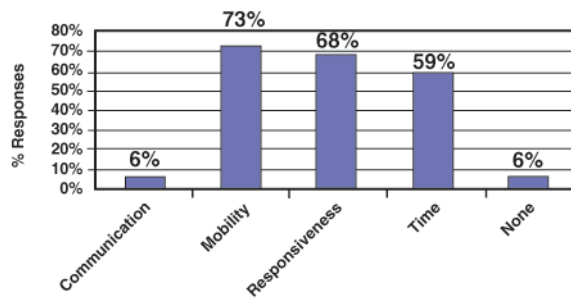


Figure 3. Time savings

Figure 3 further breaks down the amount of time saved.

Mobility

According to the study, unified messaging, especially when combined with a wireless local area network (LAN), greatly enhanced user mobility for nearly three-quarters (73%) of participants.

Many users lauded the ability to receive, listen to (or ignore), and reply to incoming voice messages during office downtime, such as while waiting for meetings to begin or while sitting in the cafeteria. Telecommuters with a single phone line appreciated a single message interface that let them avoid disconnecting every time they needed to check voice mail.

Responsiveness and Organization

As shown in Figure 3, more than two thirds of respondents (68%) noted improved responsiveness. These users were almost continually running their email client, so they were notified instantly of incoming messages. (Intel employees communicate using email far more frequently than with a phone.)

Unified messaging enhanced responsiveness further through its added message organization capabilities: voice messages can be flagged for follow-up, moved to a folder containing related messages, or referred to later if a question arises.

Help Desk Benefit

Help desk personnel included in the study valued unified messaging for the single, non-telephone interface that enhanced multitasking. Not surprisingly in view of their jobs, they also appreciated the ability of unified messaging to forward voice messages with their precise meaning intact instead of first translating them into text email.

Return on Investment

Upon completion of the Intel study, its authors felt that it was not difficult to identify the type of information necessary to gauge the return on investment (ROI) in unified messaging, but actually getting the information was a challenge. The authors suggested that businesses look for the following types of improvements from an organization-wide unified messaging solution:

- Eliminate redundant messaging overhead
- Consolidate message administration and support
- Reduce long distance message access costs (voice messages received via email)
- Reduce long distance message delivery costs (voice messages sent via email)
- Increase employee mobility and location independence
- Speed up message response
- Simplify message retrieval with a single mailbox that does not require a telephone
- Enhance message organization and manageability
- Enhance communication
- Decrease reliance on proprietary voice messaging components

The authors felt that even by conservative estimates, the time savings of unified messaging would quickly show a positive ROI. Industry studies reveal unified messaging time savings of at least one and half hours a week per employee; the Intel study showed employee time savings ranging from 30 minutes to over two hours per week.

The authors also felt that unified messaging productivity benefits grow as the solution is fully deployed throughout the enterprise: the more complete the unified messaging deployment, the greater the benefit.

Why Intel® Components Are Valued in Communications Solutions

Intel provides modular, standards-based components for a wide range of communications solutions, including messaging, contact centers, speech-enablement, and much more. Two aspects of Intel's design philosophy provide special advantages for a developer such as Active Voice. These two design principles, to which Intel rigorously adheres, are modularity and compliance with industry standards.

Importance of a Modular Building Block Approach

Intel's first design principle is to supply generic building blocks that make Active Voice's development easier and allow its solutions to be upgraded more quickly. Here are some of the specific advantages that a modular building block approach provides for Active Voice:

- Active Voice's application developers can work at a high level of abstraction instead of wasting their precious time and skills on less important job functions.
- Active Voice's products can be tailored to specific customer environments, and yet are portable at the same time.

- Intel takes care of developing routine functions and writing interfaces, so Active Voice’s developers can do what they do best – design and implement innovative messaging solutions.
- As a building block provider, Intel uses its resources to develop new hardware and support new technologies in the industry. Active Voice can concentrate on creating unique features that take advantage of these new technologies to meet the special needs of its customers.
- Maintenance costs are lower for Active Voice. Resources are not spent rewriting low-level protocols. Intel engineers take care of this time-consuming chore.

Using modular building blocks from Intel allows Active Voice to add components as its customers need them, but at a lower cost than if they developed the components themselves. Also, building block components protect Active Voice’s investment by allowing applications to stay in the market longer because modular components are designed to be both flexible and scalable. All of these advantages translate to superior applications for Active Voice’s customers – at a lower cost and with a solid return on their investment in an Active Voice solution.

Standards Are Critical

In order to ensure that modular components work together seamlessly, many organizations in the industry are working on standards, specifications, recommendations, and protocols. Because of the enormous success of standards in the recent past, most notably in the emergence of the personal computer and the Internet, standards in telecommunications are seen as critical to future growth and progress.

Numerous associations, forums, consortiums, and working groups help to shape standards for the telecommunications industry, and Intel is a strong supporter of this important work. Here are some of the active standards groups today.

- **ITU** – The pre-eminent telecommunications standards body is the International Telecommunication Union (ITU), formed in 1865. The ITU’s role has evolved over the years, but its primary goal of standardizing emerging telecommunications systems and driving common global policies has remained constant.
- **SCSA** – Computer telephony (CT) standards bodies began to organize in the early 1990s, and one of the first standards was the Signal Computing System Architecture (SCSA), which defined a standard way for communications building blocks to transmit voice media streams.
- **ECTF** – The goal of the Enterprise Computer Telephony Forum (ECTF) is to ensure the interoperability of CT systems. The ECTF is an “umbrella” group, which fosters and unites smaller, more focused standards groups. In 1996, the Intelligent Network Forum joined with the ECTF to facilitate modular application interoperability in the public network.
- **IMTC, IETF, and WC3** – As IP technologies have proliferated, several organizations worked to develop a common interface. The Voice over IP (VoIP) Protocol Forum, now part of the International Multimedia Teleconferencing Consortium (IMTC), and the Internet Engineering Task Force (IETF) were among the early IP-related standards bodies. The

World Wide Web Consortium (WC3) was chartered in 1994 to enhance the potential of the World Wide Web by ensuring interoperability.

- **VoiceXML Forum and SALT Forum** – These recently formed organizations are defining standards for speech-enabled technologies. They are working to accelerate the use of speech technologies for the converging voice and data marketplace.

All of the standards produced by the organizations mentioned here are helping to create both the modular network and an enhanced environment for advanced messaging solutions. They also allow Active Voice and its customers a wider array of choices when implementing messaging systems.

Standards-Based Components Lower Costs

Standards-based components have the ability to drive total system costs down due to economies of scale and increased interoperability.

For example, a standard data server running unified messaging applications with a standard operating system requires no specialized telecom personnel to support it. IT personnel can manage, maintain, and upgrade the unified messaging system as easily as they administer their organization's information system. And in a distributed environment, hardware and software can be managed remotely.

The use of standard server components also reduces risk as applications are built on currently available, broadly used, mature components.

Modular Components Provide Access to New Technologies

Since messaging technologies are changing so quickly, how can developers and service providers build and deploy systems that can incorporate new technologies? And how can an enterprise ensure that it adopts the best technology available while paying as little as possible for that new technology?

The answer is simple. Enterprises that choose modular, standards-based systems such as Active Voice's Kinesis or Repartee products ensure scalability, flexibility, and access to applications with rich feature sets and must-have technology. Such systems also bring the best return on investment because modularity helps insure that systems have long, useful lives because new technologies such as VoIP and speech can be added easily.

IP-Based Technology

Internet protocol (IP) is a technology used to “packetize” voice communications and transmit them over a data network, which is known as IP telephony. This technology, also called Voice over IP (VoIP), is becoming more prevalent and provides substantial benefits. By comparing IP telephony with traditional circuit-switched telephony, Intel’s investment in IP telephony is easy to understand:

- **Dramatically reduced bandwidth usage.** IP telephony can use far less bandwidth than circuit-switched telephony, generally by a factor of eight or more. A standard voice circuit uses 64 kilobits per second (Kbps), but IP telephony can be configured to use 6 to 8 Kbps, and sometimes as little as 2.4 Kbps.
- **Valuable control information transmitted simultaneously.** Many traditional voice circuits allow for no additional data other than the voice transmission. Packet-switched networks send voice communications in packets whose headers can contain additional information about the transmission.
- **Many new services possible.** Because IP telephony technology treats voice and data uniformly and Custom Local Area Signaling Services (CLASS) are easy to implement, many new services are possible, such as Web-enabled contact centers and unified messaging.
- **Reliable, scalable, easy-to-use.** Deployment is easy, because IP telephony does not use a new infrastructure, but rather the data communications network that is already in place. Implementation is achieved through dedicated gateways that can be based on open standards platforms for reliability and scalability.

IP-based communications solutions promise voice and data connectivity that is low cost, flexible, and scalable. For example, IP is used to integrate packet-based voice mail systems with traditional circuit-based voice mail systems in unified messaging solutions, allowing recipients to check all voice mail messages by phone, regardless of their type or origin. A caller can dictate a voice message offline, save it in WAV file or another supported PC audio file format, and then transmit it as email before trying to reach one or more recipients by phone. The recipients can listen to the voice mail message by double-clicking on it in their email inboxes. In this way, all voice mail messages can be accessed through a single interface. In addition, people receiving email on cell phones and other small handheld devices without keyboards can reply to messages by sending voice mail messages as email.

In a similar way, IP-based fax solutions that use Fax over IP (FoIP) technology allow users to send faxes over the Internet, saving on toll charges and stand-alone hardware costs.

Speech-Based Technologies

Speech-based technologies offer the most natural user interface for messaging — the human voice. Dramatic advances in Automatic Speech Recognition (ASR) and Text-to-Speech (TTS) enable capabilities such as voice-activated dialing and barge-in (using the voice to navigate during a call), which deliver a more natural user experience while driving the adoption of voice-enabled messaging solutions.

Voice-enabled messaging lets users sort through multiple media messages quickly and easily. Such a system frees users from entering touchtone commands to access their messages and helps them comply with the laws of a growing number of states that mandate hands-free cell phone operation while driving.

Active Voice's Seven, a speech-enabled directory dialer application, acts as a virtual telephone operator, providing callers with immediate access to company directory information. By using advanced ASR and TTS technologies, Seven does the following:

- Asks the caller to say the name of the person to whom they wish to speak
- Retrieves the appropriate information from a database
- Connects the caller to the correct extension

Seven provides workers with a convenient and efficient way to reach their colleagues whether they are working from the office or a remote location.

Automatic Speech Recognition (ASR)

Automatic speech recognition is rapidly entering the mainstream. Its algorithms provide a speech-enabled messaging system to hear and understand human speech.

While early speech applications recognized only a small vocabulary of 20 to 30 words, the accuracy and vocabulary size of new ASR engines has dramatically improved, fueled by refined algorithms, dramatic increases in processing power, and lower costs. Today's speech systems support naturally spoken phrases and do not require prior training. Support for multiple languages is also becoming a standard feature of many systems.

Text-To-Speech (TTS)

Text-to-speech technology is a computer system's ability to translate text into synthesized speech, and allows email, fax messages, and Web-based text content to be "read" to human listeners, usually over the phone, in unified messaging and communications systems. Because it uses synthesized rather than digitized speech, TTS eliminates the need for scripting and the studio recording of human subjects, making it very inexpensive. It can also be updated quickly and sounds uniform.

Inside Messaging Solutions

Active Voice's unified messaging solutions are designed to allow its customers to install a system that is the right size and fit for them without worrying about the many pieces of hardware and thousands of lines of code that make up a system.

The major components of a unified messaging/unified communications system include the operating system, customized software applications, and high-performance hardware, along with

the “glue” that makes the pieces work together, which are known as application programming

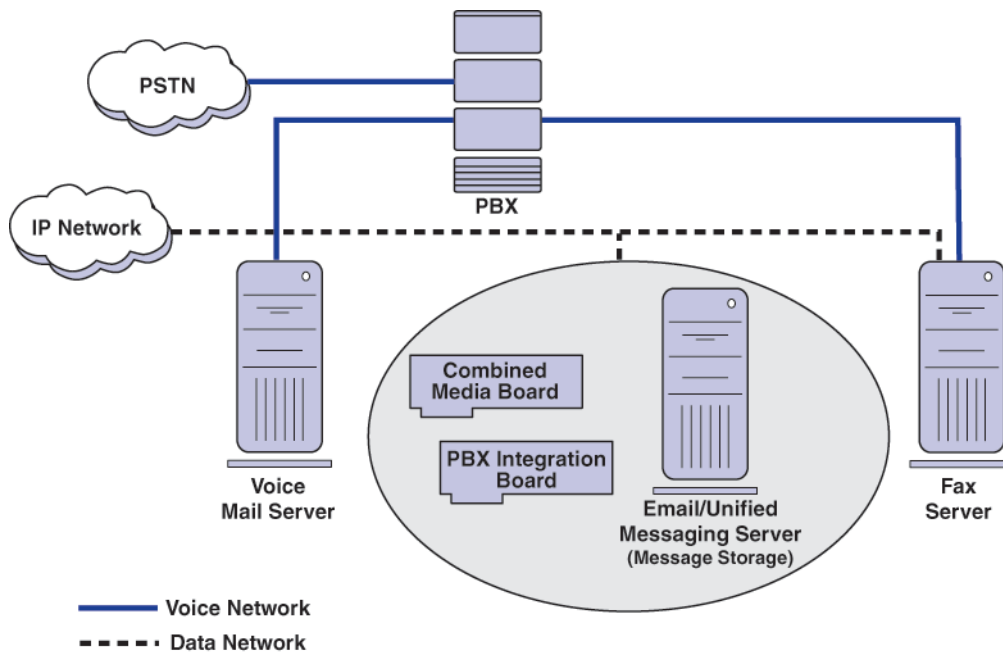


Figure 4. Unified Messaging Solution Components

interfaces (APIs). Although an Intel processor can power the main server in an Active Voice system, Intel is primarily responsible for the boards that supply various communications services, such as those described in this section.

A Sample Messaging Configuration

Figure 4 depicts some of the basic components of a unified messaging solution for illustration purposes only. Solutions from Active Voice can have a variety of different configurations, based on the type of product and feature set a customer chooses.

The unified messaging server in Figure 4 can connect to different digital and analog connections (PBX, T-1/E-1, ISDN) and receive, record, store, and play back messages when requested by the user. The PBX integration board allows easy communication with the PBX, letting the system receive voice calls from the public network (PSTN), facilitating the voice messaging requirements of call termination, tone detection, etc. A physical fax server may or may not be present, since combined media boards from Intel can provide fax resources.

Depending on the network interface and the architecture of the messaging network, all of the messages can be stored in a single location (as in Figure 4) or on specific voice, fax, and email application servers.

Boards for Unified Messaging/Unified Communications

Many telecom boards from Intel provide more than one type of media resource combined with additional functionality while others are more specialized. Mixing resources on a single board allows greater dependability and reduced costs for Active Voice and its customers. In this section, we describe the various board types.

Combined Media

Combined media boards provide the computing resources to enable faxing, speech processing, and other functions. Active Voice uses combination boards to provide a network interface as well as media resources. If media resources are not included on a board that provides interface or integration capabilities or additional media resources are needed in a particular messaging system, boards that provide only media resources can be added.

The Intel® Dialogic® D/41JCT-LS is an excellent example of a combined media board that supports voice, fax, and software-based speech recognition processing in a single PCI slot. It is used by Active Voice in its messaging solutions. You can learn more about the D/41JCT-LS at <http://www.intel.com/network/csp/products/6925web.htm>.

Active Voice also uses higher density combined media boards that provide more resources on a single board. These include the Intel Dialogic D/120JCT-LS and the Intel Dialogic D/240JCT-LS.

IP

IP boards perform IP transcoding in addition to telephone interface functions, allowing developers to create systems that connect circuit-switched telephone and IP-based networks. Some IP boards also include an Ethernet 10/100 connection.

Media Resource

Media resource boards provide the resources for functions such as voice, fax, conferencing, and speech processing. They are used when only media resources, or when additional resources, are needed.

PBX Integration

PBX integration boards enable the connection and exchange of information between the PBX switch, unified messaging server, and managed packet networks such as LAN, WAN, and VPN.

The Intel Dialogic D/82JCT-U is a PBX integration board that offers advanced digital connectivity to many popular PBX and is used in Active Voice solutions. Featuring programmable soft-ports capable of supporting voice, fax, call handling, and host-based speech technologies, the D/82JCT-U board reduces the cost of ownership for systems requiring multimedia functionality. To read more about the D/82JCT-U, go to <http://www.intel.com/network/csp/pdf/6040.pdf>.

The Importance of Common APIs

Intel ensures that its boards work seamlessly together (and with the Kinesis and Repartee products) by consistently using common development software across boards and systems. This software is generally referred to as application programming interfaces (or APIs), and one of the best known of these is Global Call.

The Global Call API provides a common signaling interface for network-enabled applications, regardless of the signaling protocol needed to connect to the local telephone network. The signaling interface facilitates the exchange of call control messages between the telephone network and virtually any network-enabled application, providing great flexibility for Active Voice's development team.

The Global Call API also enables Active Voice to create applications that can work with signaling systems worldwide, regardless of the network to which the applications are connected. Global Call API software is ideal for high-density, network-enabled solutions, such as voice and data applications, where the supported hardware and signaling technology can vary widely from country to country.

How APIs Ensure Compatibility in the Future

In September 2002, Intel introduced a revolutionary new technology when it released Intel® NetStructure™ Host Media Processing (HMP) software, which performs media processing on the host processor. HMP software is typical of the kind of product that Intel invests in for developers such as Active Voice and ultimately for Active Voice's customers. Named a "Product of the Year" by Internet Telephony magazine in 2003, HMP software promises to reduce the need for telephony hardware and specialized computer chips (called digital signal processors or DSPs), which can dramatically reduce the total cost of ownership of communications systems.

Intel is in a unique position to develop this technology. Intel engineers have a long history of creating the algorithms that make communications systems reliable, flexible, and scalable. Other Intel engineers are at the forefront of processor technology. By performing the functions of purpose-built DSPs on the central processor in a server, HMP software can deliver telephony media processing in a new and more cost-effective way.

The development of new technologies such as HMP software is one of the most important benefits that an alliance with Intel brings to Active Voice and its customers. Intel invests in new technologies, and makes them available to Active Voice when they are completely developed and tested. This frees the engineers at Active Voice to concentrate on exciting innovations specifically for messaging applications, adding new technologies from Intel as appropriate.

As Intel engineers work on new technologies such as HMP software, they also incorporate clear migration paths to protect the investment of Active Voice and its customers. Here is where the importance of standardized APIs comes to the forefront. HMP software uses the same APIs as the current generation of board-based Intel communications products, allowing seamless compatibility and integration of the new technology.

Continuous Speech Processing

Continuous speech processing is another innovation from Intel, which began as an exciting idea and has evolved into a tried-and-true standard.

Continuous speech processing helps bring speech to messaging applications. It is a set of software and firmware features available on communications boards from Intel that can enable high-performance speech applications on open computing platforms such as the Kinesis and Repartee solutions from Active Voice.

Continuous speech processing enhances existing speech technologies by processing real-time voice signals, which identify human speech input, and presenting that input to the host platform for speech recognition. The real-time functions include echo cancellation and voice activity detection (VAD). This approach frees host platform resources for more complex speech recognition tasks such as analyzing and recognizing the speech input for an application.

Continuous speech processing supports important application-friendly features such as barge-in, which is the ability to interrupt speech prompts by speaking over them. Barge-in lets callers control the pace of a conversation and complete the interaction more quickly, resulting in a more pleasant customer experience and a more efficient use of platform resources. Barge-in saves host-system resources, improves system utilization, and can reduce phone charges by shortening the duration of the call.

The VAD functionality in continuous speech processing provides a pre-speech buffer that produces better voice recognition using less host processing, and enhances the accuracy of speech detection. In addition, continuous speech processing was designed to be flexible and lets VAD be disabled or used in conjunction with the speech detection algorithms created by speech technology developers.

Why Did Active Voice Choose Intel?

Active Voice chose Intel components for its infrastructure because it is the ideal source for a broad range of high-performance, open communications products ideally suited for powerful messaging solutions. Using Intel's technically sophisticated products provides many benefits for Active Voice and its customers:

- A comprehensive set of high-quality, interoperable components with worldwide approvals that enable the quick and easy deployment of global applications and solutions for messaging
- The ability to build complete, open communications messaging systems to run high-performance, high-availability applications and solutions on a solid foundation
- An easy transition to cost-effective, flexible converged voice and data networks for messaging solutions
- Technology that allows an enterprise to follow a phased migration path from legacy/circuit-based networks to IP-based networks, which can provide significant cost savings and enhanced applications
- Accelerated development of a wide range of enhanced communications solutions built with off-the-shelf, standards-based components
- Professional technical support, consulting, and educational services that can significantly reduce costs and time-to-market, but increase time-in-market
- A strong ecosystem of companies offering a wide choice of modular network components, which work seamlessly with Intel products

Intel allows Active Voice to concentrate on what it does best – creating the most innovative and cost-efficient messaging solutions for its customers.

About Active Voice

Active Voice, LLC is a global provider of unified messaging, computer telephony, and voice messaging solutions, powering the communications infrastructure of businesses worldwide. The Seattle-based company has offices in the United States, Australia, and the Netherlands. Over 150,000 Active Voice systems have been installed in more than 60 countries. Active Voice's products are sold and supported through a global network of independent telecommunications manufacturers, dealers, computer resellers, and strategic partners. For more information, visit the Active Voice website at www.activevoice.com, or contact Active Voice's Sales Support at 1-877-864-8948 or by email at sales@activevoice.com.

About Intel

Intel, the world's largest chipmaker, is also a leading manufacturer of computer, networking, and communications products. These products offer communications systems owners the building blocks they need to succeed in the world of converged voice and data communications. For more information, call Intel at 1-800-755-4444 (from United States and Canada only) or 1-973-993-3030 (worldwide). For more details about the Intel telecom products, visit the Intel website at <http://www.intel.com/go/telecom>.

Intel Corporation

To learn more, visit our site on the World Wide Web at
<http://www.intel.com>.

1515 Route Ten
Parsippany, NJ 07054
Phone: 1-973-993-3000

Active Voice, LLC

To learn more about Active Voice, please visit
<http://www.activevoice.com>.

2033 Sixth Avenue, Suite 500
Seattle, Washington 98121 USA
Phone: (206) 441-4700

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