

# Voice Messaging In Transition

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## How unified messaging, VOIP, unified communications, and even Microsoft are changing customer choices—and what to do about it.

Once upon a time, voice mail was “the preferred messaging solution” for large enterprises. In the 1990s, voice mail networks connected systems throughout almost all large enterprises, using both proprietary and standards-based networking. Since everyone had access to a telephone, everyone had access to voice mail, even when out of the office. Managers and teams relied on group distribution lists and broadcast messages. Remote computer access to send and retrieve email was still restricted and often at dial-up speeds, so voice mail was then the most widespread, and therefore most effective, solution. A quick telephone call was the most convenient way to check in with others in the department or team, even if the call “went to voice mail.”

Also, the business customers, partners and suppliers of most enterprises would think of a phone call as the first contact option, following up with an email message or fax if the matter was urgent. Of course, many of these phone calls “went to voice mail” and resulted in a voice message, followed by a return phone call (and perhaps another voice message, etc.).

How times have changed! By the beginning of this decade, most sources agree that email had eclipsed both phone calls and voice mail as the most common form of internal business communication. The RIM BlackBerry and similar products made that email accessible from anywhere. And instant messaging (IM) is emerging as the preferred mode of “checking in” with others on the team.

Even the business customers, partners and suppliers have shifted to email as the communication vehicle of choice, since email is less disruptive

than a phone call, can be sent at any hour of the day, and provides a written record of the event. Increasingly, when calls are routed to voice mail, the callers will drop the line rather than leaving a message and then will seek access through other means (a cell phone call or an email message), or will seek help from other available staff resources. And when a live conversation is needed, email and calendar invitations are used to schedule the call.

And meanwhile, most of the voice mail producers were being subsumed by the PBX producers (Octel by Lucent/Avaya, Active Voice by Cisco and NEC, Centigram by Mitel, etc.), which stalled the pace of innovation. While voice mail systems might have evolved to become the core of mobility and unified communications platforms, this potential has generally not been fulfilled.

### What Are Your Choices?

So what does this mean for your enterprise’s voice messaging systems? Most of the voice mail systems sold in the 1990s are now in the later stages of the product life cycle, usually no longer for sale and with end of support on the horizon. Voice mail replacement or upgrade is imperative.

On top of all this, Microsoft released its Unified Messaging in Exchange 2007 in December 2006, radically changing the voice mail price, solution and delivery model (see [www.voiploop.com](http://www.voiploop.com), Dec. 19, 2006).

Most enterprises see three main options for voice mail replacement:

**Option 1**—Upgrade voice mail now, to unified messaging or unified communications. This option usually focuses on new business benefits—how can you help your organization get the jobs done better. Companies that make these changes report better customer service and accelerated business processes.

**Option 2**—Include voice mail replacement when upgrading to IP-telephony. This option is usually focused on cost management—lowering total cost of ownership (TCO) through server consolidation and IP-telephony. While the emphasis is usually

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on functional replacement, it can include some elements of Option 1.

**Option 3**—Wait as long as possible, then choose the best available solution. Consider installing adjunct servers to enhance the existing voice mail system with speech services and/or email notification, if appropriate. This is the default option, if options 1 or 2 are not compelling.

Option 1 has the greatest potential for return on investment (ROI), because it leverages business results, not just TCO. Since Option 1 also requires investment and change management, it is more difficult to get started, but the results are almost always worth the effort.

### First Things First

However, before you even start to pick an Option for your enterprise, get some information.

First, run your voice mail usage reports for the past month (or more). These reports can usually be exported for easy analysis, e.g., as comma separated value (CSV) files that can be imported to Excel or similar tools. Look for these reports:

■ The report that shows usage by mailbox. Analyze this data to display the average usage per day per mailbox for both internal messaging (i.e., voice messages that a user sends after logging in or by replying or forwarding a message) as well as the number of “call answering” messages per day. This will show who is using voice mail and how they are using it.

■ The report(s) that shows voice mail traffic by hour for each day of the week. This will show you how much traffic capacity is needed in the replacement voice mail systems.

■ The reports that show the auto-attendant usage in numbers of calls, total connect time for those calls, and, if possible, the actions taken by the callers.

When I analyze these reports with my consulting clients, we consistently find the number of voice messages being sent by users every day, excluding the “call answering” messages, has dropped significantly from the levels when the voice mail system was first installed; often it is only one message per day, on average, down from 10 or more per day in the past. We also find that the peak load traffic is using less than half of their current capacity, which is a very important cost saving fact when configuring the new voice mail and IP-telephony systems.

Second, talk to your primary groups of users. Using your data analysis, find the types of users (e.g., sales, order desk, shipping, management, etc.) who get the most “call answering” messages every day. Interview representatives of those groups to ask what they would most like to see improved. Would they like to have a “find-me” service, so the callers can ring their cell phones or remote offices to improve customer care? Would the callers like to have a menu of other options when the users are not available to answer the

calls? Would they like to have new message alerts sent to their pager, cell phone or BlackBerry for faster response to customers?

Also, talk to those types of users who “send” the most voice messages. When and why do they use voice messages instead of email or IM? How could this be made easier and more effective? Would it help if they could use a PC-based Web interface or their email client to create, send and file the voice messages? Do they use group lists or require broadcast capabilities, especially across multiple locations?

Armed with this information, you’re prepared to make some choices.

### Considering the Primary Choices


If you’re considering either Option 1 or Option 2, the four primary choices you’ll need to make are:

■ Do you want to provide a speech interface and “find-me” service for your callers? This is becoming more and more common and is very effective. Many companies are now installing a “speech attendant” so that callers who don’t know the direct inward dial (DID) number can just say the name of the person they are trying to reach. In fact, some companies use a speech attendant and have eliminated their DID services, at least in some locations, saving money on both tariffs and admin expense.

In addition, many companies are installing “find-me” services with their new voice messaging system, so that the caller has the option of attempting to find their party rather than leaving a voice message. There is usually very positive feedback from both the callers and users when “find-me” is installed.

■ How do you plan to support your mobile users and remote workers? Cellular phones, BlackBerry-type devices and broadband networks have changed the world for mobile and remote employees. They can and do expect to have the same services when mobile as when they are at their desk. If you need to provide this in your enterprise, you’ll want to consider storing voice mail messages in the email servers (e.g., Microsoft Exchange, Lotus Domino, *et al.*) since that will automatically deliver voice mail headers and, usually, messages to the mobile devices and remote PCs. In addition, your operation will only have to support a single set of desktop clients (e.g. Outlook and Outlook Web Access), though sometimes with a plug-in for voice message playback.

■ Do you *want* to store voice mail in your email servers, or not? Some companies have specific reasons not to allow voice mail to be stored in the email system, including corporate policies regarding message retention, regulatory compliance or privacy and email security (i.e., not allowing the voice mail application servers to access the email servers). Also, keeping voice mail separate provides an added level of business continuity and disaster recovery, because the voice mail system



**The number of voice messages sent has dropped significantly**



**Be prepared for the disruption that voice mail changes will produce**

and telephone network remain operational when email is down or if users are blocked from reaching their PCs (such as in a snowstorm or hurricane). But if these are not barriers in your company, then storing your voice messages directly in the users' email boxes has lower TCO and some great user benefits.

■ Do you use voice mail networking? If so, do you need to keep it? If you're not using voice mail networking now, then you probably don't need to start using it for the future, unless there is user demand (often the CEO) for company-wide broadcast messages (and even then there are workarounds other than installing and maintaining a full voice mail network). But if you do have voice mail networking, then be sure to include that in your transition and upgrade planning. Most new voice mail systems can use Internet protocols (such as SMTP/MIME) for networking, but during the transition period you will need to connect the new systems to the existing systems, which will require some form of standards-based voice mail networking, either Audio Message Interchange Specification (AMIS) or Voice Protocol for Internet Messaging (VPIM).

Now that you have sorted out those main choices, your voice mail upgrade options will come into focus. You'll know what new services you need for callers and users; you'll know whether to store voice messages in the email system or not; you'll know whether you need voice mail networking or not; you'll know how much voice mail capacity you'll need; and you'll know if you need voice mail networking either during transition or continuing after the upgrade.

### **Let's Go Shopping**

The easiest way to do this is just to divide the world into two groups: Is voice mail stored in the email system, or not? Here are the players in those two categories.

#### *Voice mail stored in the email system*

If this is your choice, for mobility support, ease of desktop access and lower TCO, you have some fine choices and a new choice as of last December. Many companies offer a "voice server" to provide call answering services as well as user access by phone when needed (remember, the users will have BlackBerry-like devices, laptops and desktop PCs for messaging). These servers connect to the voice network through one or more PBX systems and connect to the email server (Exchange, Domino, *et al.*) for message storage and retrieval. These systems all rely on the email system for directory and user profile services and usually require very high-level access privileges (see the point on security above). A list of major providers of this type of service is shown in Table 1.

You can see that Microsoft has taken an aggressive position in this category. The \$25 per user list price is the incremental "Enterprise" CAL for Exchange 2007 and that price includes some

significant email features, such as "advanced compliance, as well as Forefront Security...and antivirus and antispam protection." Since most large enterprises will likely purchase the Enterprise CAL for these operational features, the voice messaging offer by Unified Messaging in Exchange 2007 is essentially a no-charge option.

#### *Voice Mail not stored in the e-mail system*

If this is your choice, for caller services, mobility support, business continuity, security concerns or operational reasons, you also have some excellent choices. Every major VOIP PBX provider offers one or two products for upgrade of your current voice mail systems. Most have effective unified messaging solutions (displaying the voice messages through the email client software and sending notifications to the user's email address). Many have speech attendant and speech user interfaces built-in or available on an optional server. Some of these new options are packaged conveniently as software or an add-on card in the IP-PBX, to further reduce total cost of ownership (TCO).

Leading providers of enterprise-class stand-alone or embedded voice mail systems include 3Com, Alcatel, Aastra, Avaya, AVST, Cisco, Digium, Ericsson, Interactive Intelligence, Inter-Tel, Mitel, NEC, Nortel, ShoreTel, Siemens and Voice Mobility International. All but one of these companies are exhibiting at VoiceCon Spring, next month in Orlando, so consider doing much of your shopping there.

Both of these options—voice mail in the email server or not—are good and viable options for a messaging system investment that will last for 5 to 10 years into the future.

Once you have selected your preferred supplier(s) from one of the two categories above, focus in on the factors that matter most to your enterprise. These might include features, mobility support, desktop access options, telephone user interfaces, auto-attendant, speech attendant, speech access, administration, reporting, PBX integration support, VOIP/SIP integrations, voice mail networking options and migration options and services. And, of course, you'll want to look at prices, TCO and ROI.

### **Plan For Change**

You can't avoid it. The new voice mail, unified messaging or unified communications systems will introduce change! Since voice mail is an audible interface that users memorize, it can be very disruptive (read anger-inducing) to the users when it changes. You will want a thorough communication and training program before, during and after the change to the new system. Also, no company is offering a perfect like-for-like migration from their current system. In every case, the telephone user interface has different features and keystrokes.

This applies to migration day, as well. Few

**TABLE 1 Voice Mail Stored In Email System—Providers**

Company Product Name	Message Stores Supported	Client Type	Speech Interface	List Price User License (Only)
Adomo Voice Messaging	Exchange	Outlook Form	Yes	\$100
Avaya Modular Messaging	Exchange Domino	Outlook or Notes Plug-in	Optional via additional servers	\$110
AVST CallXpress	Exchange Domino	Outlook or Notes Plug-in	Yes	\$ 50
Cisco Unity	Exchange Domino	Outlook or Notes Plug-in	Future Release	\$135
Interactive Intelligence Communité	Exchange Domino Sun One	Outlook Form Notes Form Web Access	Yes	\$ 42
Microsoft UM in Exchange 2007	Exchange	Native Outlook; Outlook Web Access (OWA)	Yes	\$ 25
Siemens HiPath Xpressions	Exchange Domino	Outlook or Notes Plug-in	Yes	~\$ 75

**Few providers can migrate saved messages or legacy auto-attendant scripts**

providers offer a migration of the users' saved messages or recorded greetings. No providers offer automatic migration of the many auto-attendant scripts that are in use on the current voice mail systems. The new systems still have auto-attendants, often with easy-to-use graphic interfaces, but it will require planning and effort to migrate.

So plan for change, with an appropriate budget for help from the voice mail producer, their authorized partners and/or a consulting firm.

**A Tip For Centralizing Voice Mail Services**

If you're planning to centralize voice mail servers, especially if you're doing this as part of a IP-PBX upgrade, you can save a lot of voice bandwidth to the central site if you use the PBX auto-attendant (sometimes called prompting and routing) software for the local auto-attendant activities. By providing the "Press 1 for sales, Press 2 for service, ..." prompts in the local switch or gateway, calls will only be connected to the central voice mail server when a voice message needs to be recorded or retrieved, not for every auto-attendant call. This will reduce both the bandwidth to the central site as well as the number of ports needed on the voice mail or unified messaging system or voice server.

**Focus On The Benefits**

Whenever you choose to upgrade your voice mail systems, and whatever system you select, be sure to focus on the benefits for your enterprise, your customers and the users. You'll be investing significant time and money and will be creating a change-oriented project, so be sure to get the most out of the effort and expense. Use the knowledge you gained from studying your information and from interviewing your users to design new appli-

cations and to update your processes. Then, if at all possible, measure the results, so you can confirm the ROI.

This change is sure to happen in your enterprise, likely sooner rather than later, so make the best of it! □

**Companies Mentioned In This Article**

- 3Com ([www.3com.com](http://www.3com.com))
- Alcatel ([www.alcatel-lucent.com](http://www.alcatel-lucent.com))
- Aastra ([www.aastra.com](http://www.aastra.com))
- Avaya ([www.avaya.com](http://www.avaya.com))
- AVST ([www.avst.com](http://www.avst.com))
- Cisco ([www.cisco.com](http://www.cisco.com))
- Digium ([www.digium.com](http://www.digium.com))
- Ericsson ([www.ericsson.com](http://www.ericsson.com))
- IBM ([www.ibm.com](http://www.ibm.com))
- Interactive Intelligence ([www.inin.com](http://www.inin.com))
- Inter-Tel ([www.inter-tel.com](http://www.inter-tel.com))
- Microsoft ([www.microsoft.com](http://www.microsoft.com))
- Mitel ([www.mitel.com](http://www.mitel.com))
- NEC ([www.necunified.com](http://www.necunified.com))
- Nortel ([www.nortel.com](http://www.nortel.com))
- RIM ([www.rim.com](http://www.rim.com))
- Shoretel ([www.shoretel.com](http://www.shoretel.com))
- Siemens ([www.siemensenterprise.com](http://www.siemensenterprise.com))
- Voice Mobility International ([www.voicemobility.com](http://www.voicemobility.com))