With 12 doctors, eight technicians, five receptionists, and three managers (not to mention a poodle in a pet cage), the animal care hospital where my husband works is a comparatively large veterinary hospital but a relatively small business. Like other small businesses, this hospital could use an in-house e-mail system. Communications with clients aside, internal communications would be easier and more efficient if every staff member had an e-mail address and shared an e-mail address book.

Unfortunately, while the hospital offers its clients and patients cutting-edge veterinary medical technology, it offers its employees decade-old IS technology. Hospital communications are made possible through the archaic method of typing and then printing letters, memorandums, and notices. Doctors, technicians, receptionists, and managers alike dutifully place the messages they need to broadcast in wooden mailboxes that are nailed to a wall in the central hallway.

Why doesn’t this animal care hospital reward its employees the way it rewards its clients’ pets—with the latest technology? More to the point, why doesn’t this small business, like all large businesses, embrace the communications medium of this millennium?

I’ve never asked, but I can guess: Managers may have investigated popular in-house e-mail systems and concluded that these systems are too costly and too complex for their small business.

Depending on the applications they looked into, they may be right. In fact, if the applications they considered were traditional collaboration applications (such as Microsoft Exchange and Novell GroupWise), their conclusion is practically foregone. A better all, this particular small business, like many if not most small businesses, needs only e-mail. Buying a collaboration application when you need only e-mail is like buying a dining room suite when you need only a chair: It’s just too much—too much money and too much stuff for what you really need. (For more information on why collaboration applications might not be a good fit for small businesses, see “Do You Really Need the Whole Suite?” on p. 20.)

Small businesses interested in deploying relatively simple and inexpensive messaging systems should start by investigating Internet e-mail systems. Several players compete in the messaging market space for Internet e-mail systems. Several players compete in the messaging market space for Internet e-mail systems. Several players compete in the messaging market space for Internet e-mail systems.

NetMail 3.1 XE

Big Potential for Small Businesses

by Linda Kennard

Released in June, both NetMail 3.1 and NetMail XE offer the following features:

- Calendaring and scheduling through support of iCal
- Support for all major messaging standards, including Post Office Protocol 3 (POP3), Internet Message Access Protocol 4 (IMAP4), HTTP, Simple Mail Transfer Protocol (SMTP), and Lightweight Directory Access Protocol (LDAP)
- A web-based client as well as support for all of the popular e-mail clients, including Microsoft Outlook, Microsoft Outlook Express, Eudora, Entourage, and Netscape Messenger
- Synchronization of e-mail, calendar, and address book data on Palm OS and Pocket PC devices from any network workstation

What’s the difference between the two products? For one thing, NetMail 3.1 runs on multiple platforms. (For a list of the platforms on which NetMail 3.1 runs, see “Parent Product Platforms” on p. 22.) More important, NetMail 3.1 is built from the ground up on Novell eDirectory, which means, among other things, that it is highly scalable. In fact, NetMail 3.1 supports hundreds of thousands of users on a single server.

NetMail 3.1 XE
Please visit our advertiser NOVELL INC. at www.novell.com.
This console is a snap-in administrative tool for Microsoft Management Console (MMC).

Because it integrates with Novell eDirectory, NetMail 3.1 is well-suited for businesses of any size that need (or anticipate a need for) a messaging system that can scale to support millions of users in their distributed environment. With a cost of only U.S. $15 per user license, NetMail 3.1 is also very affordable.

In contrast, NetMail 3.1 XE runs on only one platform: Windows NT/2000/XP. Furthermore, NetMail 3.1 requires no directory and is a single-server application (as opposed to a distributed application). Rather than relying on eDirectory (or any other directory), NetMail 3.1 XE integrates with the Windows registry for configuration data, with the Windows user database for user information, and with Microsoft Management Console (MMC) for administration. (NetMail 3.1 XE also offers a web-based administrative console.) In other words, says Novell product manager Lynn Madsen, NetMail 3.1 XE "looks, smells, and tastes just like any other Windows application."

As a Windows application, NetMail 3.1 XE does not scale to the hundreds of thousands of users that NetMail 3.1 can support on a single server. In fact, Novell recommends no more than 250 users per server. (Of course, if this small business later grows, it can migrate to NetMail 3.1 without disrupting its messaging services.)

Head count aside, what makes NetMail 3.1 XE well-suited for small businesses? For one thing, its cost: NetMail 3.1 XE is available for U.S. $295 for 10 user licenses; U.S. $495 for 50 user licenses; and U.S. $995 for up to 250 user licenses— that's as little as U.S. $3.98 per user. In addition, NetMail 3.1 XE appeals to small businesses because it's easy to install, easy to maintain, and easy to use.

GOT A MINUTE?

You don't have to be a network administrator to install NetMail 3.1 XE. In fact, NetMail 3.1 XE was designed to be simple enough for just about anyone to install—even someone with a limited attention span. NetMail 3.1 XE installs within minutes. “If it takes you five minutes,” Madsen jokes, “you’ve done something wrong, or you took a coffee break.”

You can install NetMail 3.1 XE on any server that meets the following, minimum requirements:

• Runs one of the following Windows OSs:
  • Windows NT 4 with Support Pack 6 and the latest security fixes
  • Windows 2000 with Support Pack 2 and the latest security fixes
  • Windows XP with the latest security fixes
• Has 20 MB disk space installation
• Has 128 MB of available memory beyond the normal Windows OS requirements

To determine how much space you will need beyond the 20 MB for your messaging store, you may have to do some “guesstimating.” The total amount of disk space you need depends on the number of NetMail all users and on the size of their mailboxes. This size will vary from user to user (hence the need for guesstimation) unless you set a quota. (By default, no quota is set.)

If you set a quota, determining the disk space you will need for your message store requires only basic math. For example, if you have 20 users and set the quota on their mailboxes to 1 MB, then you will need 20 MB additional disk space for your message store.

The steps for installing NetMail 3.1 XE involve the usual actions for installing
Please visit our advertiser DSI CONSULTING at www.dsi-consulting.com.
Typical installation entails an installation. You can guess what the installation. You can use the default Windows Administrator's account, or you can create a new account. If you create a new account, you will just need to ensure that the new user account belongs to the Administrator's group so that NetMail has the rights it needs on the Windows system.

NetMail 3.1 XE automatically creates a user account. When you add a new user to this database, NetMail 3.1 XE automatically creates an e-mail account for this user. (Incidentally, Windows takes approximately one hour to recognize a new user in the Windows user database. Consequently, new users may need to wait as long as an hour before using their NetMail account.)

Next, you're prompted to select either a Typical, Compact, or Custom installation. You can guess what the Typical installation entails and probably also can guess that the Compact option installs fewer components. Specifically, the Compact option installs only one of two web client templates: It installs only WebMail, which provides a simple interface without the calendar feature. (For more information about WebMail, see the “Web Surfing to Messages” section on p. 24.)

Finally, the Custom installation, again as you can guess, enables you to choose the components you want to install. Only network administrators (or people who are similarly advanced in their understanding of messaging) should select a Custom installation.

After selecting the installation type, you are prompted to review the installation options and then to enter the sort of information you always enter when you are setting up e-mail. For example, you will need to enter your organization's Internet domain name and the IP address for the DNS server your NetMail 3.1 XE server will use.

And that's it. You're done. You don't need to create user accounts. In fact, you never need to create user accounts. NetMail 3.1 XE automatically creates user accounts for all users in the Windows user database on the NetMail 3.1 XE server. When you add a new user to this database, NetMail 3.1 XE automatically creates a new e-mail account for this user. (Incidentally, Windows takes approximately one hour to recognize a new user in the Windows user database. Consequently, new users may need to wait as long as an hour before using their NetMail account.)

You can choose to disable specific user accounts by using one of the NetMail 3.1 XE administrative tools. You can use one of the following tools to configure and administer NetMail 3.1 XE:

- NetMail XE Management Console
- WebADM

NetMail XE Management Console is a snap-in administrative tool for MMC. (MMC is a management console built into the Windows 2000 and Windows XP operating systems, but you can also run it on Windows NT.) MMC hosts administrative tools that you either create yourself or that you open and save to manage the hardware, software, and network components of your Windows system.

Launching NetMail XE Management Console is like launching any Windows program. You select Programs from the Start Menu, and then click NetMail XE. From the menu that appears, you click Manage NetMail, and the console opens. (See Figure 1 on p. 20.)

Alternatively, you can manage NetMail 3.1 XE either from the server or from an intranet or Internet computer using WebADM. WebADM is a browser-based application that enables you to access your NetMail 3.1 XE server using any browser that supports HTTPS connections. For example, enter http://127.5.4.1:81 or http://www.xyzinc.com:444. At the prompt, enter your username and password to bring up the WebADM console. (See Figure 2.)

You can use the default Windows Administrator's account to log in to Windows.

Windows' applications. You run SETUP.EXE from the installation CD, click Next to move beyond the initial screen, and then read and click Yes to accept the license agreement.

Next to move beyond the initial screen, you see the “Web Surfing to Messages” section on p. 24.

Figure 2. You can manage NetMail 3.1 XE from the server or from any intranet or Internet workstation with a standard browser using the WebADM console.
• Change the messaging system’s primary or secondary domain name, DNS server address, or the location where NetMail 3.1 XE stores users’ mailboxes and calendars.
• Specify a maximum message size users can send.
• Specify the maximum total size for users’ mailboxes.
• Prevent SPAM.
• Enable the system address book. (For more information, see “The System Address Book” on p. 25.)
• Enable virus scanning. (For more information, see “Virus Protection” on p. 26.)

DEALING WITH INSECURITIES
You can also use either NetMail XE Management Console or WebADM to secure your messaging system. Messaging protocols—namely POP3, IMAP4, and HTTP—are not secure. However, NetMail 3.1 XE supports the transmission of messages using Secure Sockets Layer (SSL) or Transport Layer Security (TLS) over POP3, IMAP4, and HTTP. (SSL and TLS, the successor to SSL, are protocols for securing messages transmitted over the Internet. For more information, visit www.whatis.com, and type either SSL or TLS in the Search field.)

If you want to make sure that no one eavesdrops or tampers with the messages your users send, you must enable SSL on the NetMail 3.1 XE server. You don’t need to enable TLS. If the server with which the NetMail 3.1 XE server is communicating supports TLS, NetMail shifts into TLS mode automatically, assuming you have enabled SSL.

To enable SSL or TLS on your NetMail 3.1 XE server, you will need to install a digital certificate on your server. Digital certificates establish your credentials and include information such as the following:

• Your company’s name
• The certificate’s serial number
• The certificate’s expiration date
• A copy of the public key that your server will use to encrypt messages and digital signatures

Digital certificates also include the digital signature for the Certificate Authority (CA) that issued this certificate. A CA is an authority (which might be an organization or a single server) that issues and manages security credentials and public keys.

Ideally, you should get the digital certificate from a CA that your network messaging clients already support. By selecting a CA that your messaging clients support, you spare yourself the hassle of having to install a root certificate on all of your network clients. (A root certificate establishes a CA’s credentials.)

As long as your messaging clients support the CA from which you get your server certificate, you’ll need to install the CA’s root certificate only on your NetMail 3.1 XE server. If your messaging clients don’t support the CA from which you get your certificate, then you will also need to install the CA’s root certificate on these clients.

Like Outlook and Outlook Express, the NetMail 3.1 XE web client supports most major CAs and therefore recognizes certificates issued by Thawte, Certisign, Entrust, Equifax, and GTE Cyber Trust, to name only a few popular CAs. (To view a complete list of the CAs that Outlook Express 2000 supports, select Options from the Tools pull-down menu. From the Options page, click on the Security tab. Next, click the Digital IDs button, and then click Intermediate Certification Authorities.)

Afer you have selected a CA, you’ll need to obtain a certificate and install it on your messaging server. (For more information, see “Steps to Security” on p. 25.)

Standards Support for Client Independence

Of course, being secure, easy to manage, and easy to install makes NetMail 3.1 XE an attractive option for small business administrators, managers, and owners. However, these benefits do not necessarily make NetMail 3.1 XE attractive to small business users. Generally speaking, users care about only one thing: how easy the system is to use.

NetMail 3.1 XE is as easy as users want it to be. NetMail 3.1 XE supports messaging standards that enable users to access...
A recent test conducted by the Standard Performance Evaluation Corp. (SPEC) demonstrated the scalability of NetMail 3.1. (Careful: Don’t confuse the multiplatform, eDirectory-integrated NetMail 3.1 with the Windows-only, eDirectory-free NetMail 3.1 XE, which is the subject of the main text of this article. As a Windows application, NetMail 3.1 XE doesn’t scale on a single server to anywhere near the extent that NetMail 3.1 scales.)

Using the SPECmail2001 benchmark, Novell tested NetMail 3.1 running on a single IBM X Series 342 hardware with only one processor. The results showed that NetMail 3.1 supported 1,050 SPECmail2001 messages per minute, which is equivalent to 210,000 SPECmail2001 users. (For test results, see www.spec.org/osg/mail2001/results/res2002q1/mail2001-20020312-00014.html.)

According to a press release Novell issued on May 13, “other companies have approached similar numbers only by using multiple processors on proprietary hardware and software rather than standard systems owned by most customers” (www.novell.com/news/press/archive/2002/05/pr02038.html).

Figure 4. The WebA ccess interface shown here is one of two templates available for the NetMail 3.1 XE web client. The WebA ccess interface is more sophisticated in appearance than the WebM all interface and also includes more features, such as the calendar feature.
chronization programs, the NetMail 3.1 XE synchronization programs do not store users' synchronization information on the workstation. Instead, the synchronization programs store this information on the users' Palm or Pocket PC devices.

What this means is that users are not bound to a particular workstation for synchronization purposes. Users can synchronize their Palm or Pocket PC device with their NetMail 3.1 XE account using any workstation on which the appropriate NetMail synchronization program has been installed.

Sync'ing a Palm

To synchronize Palm NetMail applications, users need Palm Desktop Application 3.5 or above running on their Windows workstation and a device running Palm OS 3.0 or above. Users then need only install the NetMail Palm Conduit. The setup files for the NetMail Palm Conduit are located in the PALM directory on the NetMail 3.1 XE product CD. You can copy these files from the CD to a network folder to which users have rights. Users can then click Run from the Start menu at their local workstation and run the SETUP .EXE file for the NetMail Palm Conduit from the network directory.

Input beyond this point is minimal: Essentially, users click Next after which the installation program copies the conduit's plug-in file, ICALSYNC.DLL, to the local PALM directory. Then users click Finish.

The first time users place their Palm devices in their synchronization cradles and launch the HotSync Manager, they will be prompted to configure a few things, namely the following:

- The name they want to appear in their calendar and address book
- The IP address or host name of the NetMail 3.1 XE server
- The username and password required to log in to their NetMail 3.1 XE account

Ever after, HotSync uses the default or user-specified synchronization options to synchronize the NetMail and Palm calendar and address books each time users synchronize their device and workstation. For example, by default, the NetMail Palm Conduit synchronizes users' address books, assigning precedence to the most recent entries. In cases where there are no date priorities, the NetMail Palm Conduit, by default, assigns precedence to information on the Palm, followed by the desktop, followed by the NetMail 3.1 XE server. Optionally, users can specify that they want the address book on their desktop, or Palm, or the NetMail 3.1 XE server to take precedence.

Sync'ing a Pocket PC

To synchronize the NetMail 3.1 XE calendar and address book with com-
parable applications running on a Pocket PC, users need ActiveSync 3.5 or above running on their Windows workstation and a Pocket PC 2000 or above. Users then need to install the NetMail ActiveSync Provider.

The NetMail ActiveSync Provider setup files are located in the \POCKETPC directory on the NetMail 3.1 XE product CD. Again, you can copy these files to a network folder to which users have rights. Users can then run the setup files from the network folder on their workstation. Like the Palm Conduit installation, the ActiveSync Provider installation requires minimal input from users. Users click Next, and the installation program copies the NetMail ActiveSync Provider's plug-in file, NMSSP.DLL, to the local ActiveSync directory. Then users click Finish.

If users dock their Pocket PC in the synchronization cradle during this installation process, NetMail will automatically install the NMSSP.DLL file to the Pocket PC. If the Pocket PC is not in the synchronization cradle during this installation process, NetMail posts a note on the user’s screen indicating that the plug-in file will be downloaded to the Pocket PC during the next synchronization.

Once installed, the NetMail ActiveSync Provider prompts users to enter the username and password required to access their NetMail account. Ever after, NetMail uses these credentials to synchronize users’ NetMail 3.1 XE and Pocket PC calendar and address books.

If a ActiveSync encounters a conflict during synchronization, it prompts users to select a synchronization option that will resolve the conflict. Basically, the options are to duplicate conflicting information, replace information on the workstation with information on the Pocket PC, or not to synchronize the conflicting information.

Users can then run the setup files from the network folder on their workstation. Like the Palm Conduit installation, the ActiveSync Provider installation requires minimal input from users. Users click Next, and the installation program copies the NetMail ActiveSync Provider's plug-in file, NMSSP.DLL, to the local ActiveSync directory. Then users click Finish.

If users dock their Pocket PC in the synchronization cradle during this installation process, NetMail will automatically install the NMSSP.DLL file to the Pocket PC. If the Pocket PC is not in the synchronization cradle during this installation process, NetMail posts a note on the user’s screen indicating that the plug-in file will be downloaded to the Pocket PC during the next synchronization.

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EVEN SMALL BUSINESSES NEED BIG, EASY E-MAIL

After I’d written this article, I showed my husband the introduction. Turns out, I lied (albeit unintentionally): My husband and each of the other veterinarians and staff members have a corporate e-mail account. Why then do the employees at this hospital continue to communicate using sneaker mail? The answer, not surprisingly, is that no one knows how to use the e-mail system.

The success of an e-mail system is measured by the extent to which it is used. Hence, this hospital’s e-mail system, which sits unused while its non-users find alternate means to communicate, is a dismal failure.

Granted, this system might be “success” in terms of its reasonable cost and ease of administration. However, clearly, these perks have not sealed the success of the system. In fact, these perks won’t seal the success of any e-mail system, including NetMail 3.1 XE, because users don’t care how much a system costs or how easy it is to manage. The secret to an e-mail system’s success—the secret, in other words, to guaranteeing its use—is accessibility and ease of use.

NetMail 3.1 XE gives users the freedom to use the e-mail client to which they’ve already grown accustomed or the option to use one of its web clients. You can’t get any easier or more accessible than that.

**Virus Protection**

Through its Anti-Virus Agent, NetMail 3.1 XE integrates with several popular antivirus programs, namely the following:

- Computer Associates InoculateIT, now available as eTrust InoculateIT (www3.ca.com/Solutions/ProductFamily.asp?ID=128), or any engine that is compliant with InoculateIT
- McAfee NetShield (www.mcafee.com/products/file-server-protection.asp) or any engine that is compliant with NetShield
- Symantec AntiVirus Scan Engine 3.0 (http://service2.symantec.com/SUPPORT/ent-gate.nsf/95d12de1563d6fa588256bd8006802ab/a82c616bdff001e4688256b005b082170penDocument) or any engine that is compliant with the Symantec Carrier Server

If you would like NetMail 3.1 XE to scan your messages for viruses, you need to install one of these supported antivirus engines. Then, to enable this antivirus feature, take these four steps:

1. In the NetMail XE Management Console tree view, right-click Configuration and select Properties.
2. From the Properties menu, click the AntiVirus tab.
3. Choose your AntiVirus engine.
4. As prompted, enter the path to this engine, and click OK.