COMMUNICATING WITH SAM

Messaging Platform Selection: Reaching the Fork in the Road

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Question:

Our company has recently merged with another company and a key task is to merge IT infrastructure. The first challenge I have been saddled with is the task of merging our messaging systems. We are currently an AS/400 shop running POP03 Mail on our AS/400, using OfficeVision for calendaring. The company we are merging with is an NT shop running Lotus Domino for email. They also extensively leverage calendaring, desktop faxing and e-mail receipt processing. In addition to this project, we have also been investigating how we can make our remote users and road warriors more productive.

We are evaluating unified messaging to permit these users to universally access e-mail, voicemail and fax messages through either their voice or e-mail interface. As a consequence, prior to the merger we had put a project plan together to convert to Microsoft Exchange from the current AS/400 platform. It is clear that Exchange, the system we had intended to migrate to, and Lotus Domino, the platform the other company has, are the main messaging platforms in the market place, and for e-mail only either would meet our needs. However, given some of our business needs, what are the key considerations that I must weigh in making my decision between Exchange and Domino and what should I look for in a unified messaging solution?

Answer:

Mergers always present some of the greatest IT challenges. Generally with acquisitions, it is clear who has conquered whom, and when there is no clear winner from a technology perspective on the system side of things, the political dynamic is quite simple – to the victor goes the spoils of war. When mergers occur, there is generally a sense of equality and political correctness, which should lead to the best technical decision as being the ultimate outcome. However, as we all know, in technology, seldom is it a clear answer as to what the best solution is, as all solutions usually have their shortcomings and strengths. Sometimes the shotgun approach of forcing the acquired organization to adopt your standards can be more efficient as it eliminates needless debate.

Clearly messaging, and business communication in general, is a mission critical application, and given that the businesses are merging as opposed to staying autonomous under common ownership, maintaining disparate systems is not feasible, nor practical. The bad news is that at least one set of users must go through a transition process and migrate to a new platform. The natural human tendency in these situations is to minimize the impact to end users, which would naturally lead you to the conclusion that adopting Notes as a standard will cause your organization less grief and money. However, regardless of the decision, your IT staff will be faced with a migration project, so it is critical that you step back and perform an objective assessment of which system will best meet your long-term needs.

In your case, the decision has the potential to be extremely complicated and far reaching. It is not simply about how people read their e-mail, as in the case of Notes they are also using the application as a total business productivity tool. Add unified messaging into the mix, which essentially means that your current voice mail system is eliminated and your voice messaging becomes reliant on your e-mail messaging platform, and the ramifications become extensive.

Prior to assessing the technical aspects of each solution, it is critical that you understand all aspects of what the messaging application is doing and will do. The focus of your question was primarily communication and resource co-ordination. However, many Notes shops that we encounter also have workflow applications, or even their Web

presence, integrated into the Domino server. Should you wish to migrate to Exchange for messaging, you need to consider the impact on such applications if they exist. What appears to be a simple messaging decision could result in significant integration work if there is no plan, as an example, to migrate workflow applications developed in Notes to a Web-based Intranet format in Java. On the other hand, it could also be the prod needed to accelerate change.

The key is to be aware that applications such as Notes may have penetrated many aspects of the business, and the change could be far reaching. Likewise, on a go forward basis, unified messaging will also have far reaching organizational impact, so the decision to adopt this application, and the deployment standards, must be considered carefully.

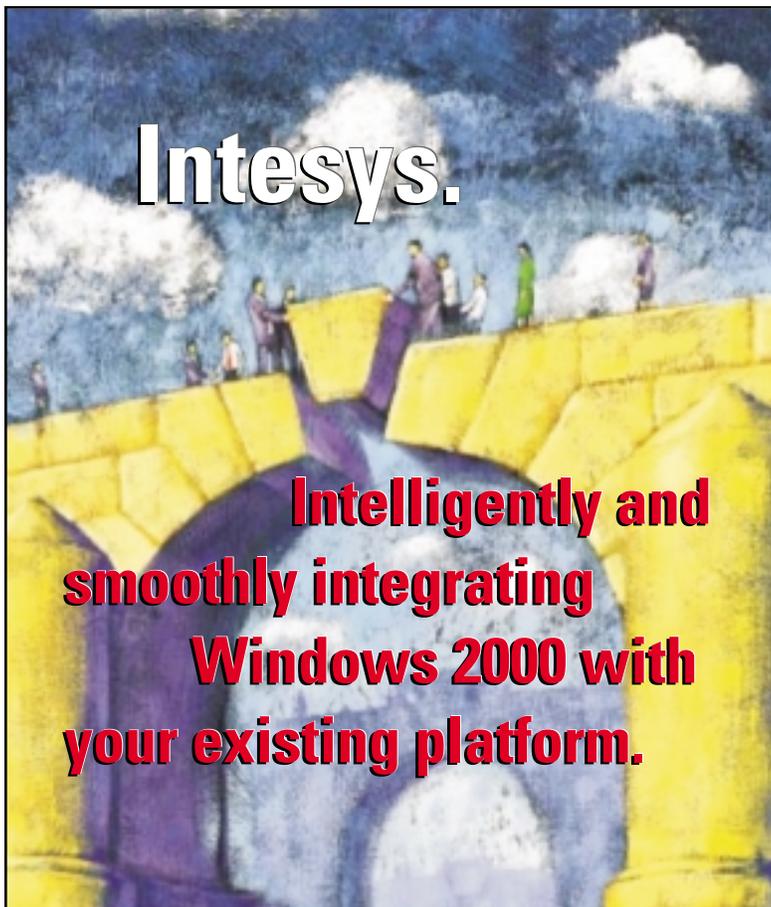The assessment you need to go through has two components. First, what system will you adopt as your messaging platform, and secondly, what unified messaging system will you adopt to add multi-media components to the messaging platform. Although they are separate decisions, they are also inter-related. For example, you may want to standardize on Notes for messaging, but the PBX platform that you currently have may only integrate to a unified messaging product that is only supported on Exchange. Are you prepared to ask the CFO for funds to scrap all the PBXs? Stressed yet? We haven't even talked about whether the unified messaging product you select has voice mail prompts that are similar to what your users are currently used to, which is likely a far greater concern relative to getting them to use a new e-mail client!

As you have pointed out in your questions, Lotus Notes and Microsoft Exchange are the only two viable enterprise options for messaging. Regardless of which system you select, there are some pros and cons, even if we assume that workflow applications are not a prohibitive factor in the selection process.

With Lotus Notes, you should consider a few key items when making your decision.

As a fat client, the Lotus Notes client PC needs more CPU and memory to handle the e-mail client software. The users on the AS/400 POP3 Mail, if they are typical "green screen" users, may not have robust PCs, and you may have to upgrade all your existing PCs if they were equipped more as terminals than as a typical PC client.

You have indicated that remote users and road warriors are a key component to the existing AS/400 side of the merger. This is where you need to be cautious if you select Notes. If you have remote Lotus Notes clients retrieving e-mail, our experience is that performance will be an issue, in particular if the access is via a low speed dial-up. To alleviate the issue, and end user complaints, you may need third party terminal software installed on the PC client and server to improve the performance adequately. This may solve

the issue technically, but it will add complexity and cost to supporting your messaging environment.

If you are serious about unified messaging, be aware that many of the leading products in the industry do not support Lotus Notes as the messaging platform. Microsoft has done an excellent job in taking a leadership position in integrating communication tools, such as NetMeeting, into their desk top image, which has in turn convinced both traditional and IP-based telephony companies, that MS Exchange should be the de-facto standard for unified messaging. While most enterprise-class unified messaging (UM) products do eventually release a Lotus Notes version, it is often well after their Exchange product is entrenched in the market. The Notes version will likely always take low priority from a development perspective, meaning that as new releases evolve, Notes shops may lag in delivering end user functionality. Your voice communications will become reliant on the unified messaging platform for mission critical services provided traditionally by the PBX and v-mail server. Beyond voice mail, this may include auto attendants and other navigational tools that are critical to business operations. You need to be sure that the UM manufacturer is committed to promptly addressing bugs for the Notes version of the software.

The upside to selecting Lotus Notes is that you have an existing server platform within one of the two merged companies, which I would assume also means a level of expertise in addition to the infrastructure. This will simplify the process by reducing the scale of the project, which should also significantly reduce migration costs. If your goal is just consolidation of e-mail platforms, then this would close the deal for me.

The alternative scenario is to adopt Exchange 2000 as your messaging platform, and migrate all users from their existing mail platform. For simplicity, I will assume that there are now workflow applications that will be adversely impacted by this decision.

Like the Lotus Notes decision, the adoption of Exchange is not without it's challenges, especially given that you are currently an NT shop and have not migrated to Windows 2000 – yet that is! Should you select Exchange 2000 for messaging, you will have no choice but to migrate to Windows 2000, which means that not only will you be migrating your mail users, but you will also be making fundamental changes to your network operating system. Exchange 2000 is tightly combined with Windows 2000, and is fully integrated with Active Directory. You will need to either merge or fully migrate NT domains into MS2000. While you will be impressed by the technical advantages of Active Directory, do not under estimate the effort to migrate. The architecture is drastically different to NT, so you will need to consider your IT staff's MS2000 knowledge and ability.

It will not be a simple rip and replace of the Notes server with an Exchange 2000 server. The adoption of Active Directory means that your entire network will need to change, and this can be significant if you have a large NT server farm and many clients. Other architectural changes specific to mail support may also need to take place. You will need to set-up a Mail Forwarding Server (SMTP gateway) to fully leverage Exchange 2000. As well, we would highly recommend that you deploy Virus protection software on the Mail Forwarding Server to prevent viruses from penetrating the corporate Intranet. This is a significant hidden cost of adopting Exchange 2000 over Notes. The preponderance of viruses that target MS Exchange relative to Notes means that your security strategy needs to be reviewed, and the likelihood is additional cost.

While the cost of migrating to Exchange may be painful in the short-term, you need to look at the long-term. If you want to take advantage of other MS applications such as OWA (Outlook Web

Access), you may find that the integration benefits justify the initial cost. Of course, if you are serious about unified messaging, then Exchange will warrant serious considerations.

Beyond the key considerations we have noted already, it is important to establish your evaluation criteria and rate each of the options. Given that both Notes and Exchange are excellent messaging products in terms of end user e-mail functionality, I would suggest you might want to consider the following as criteria for assessing messaging platforms:

Scalability - Does the platform offer the flexibility to deploy single databases per mailbox, eliminating file contention and single points of failure? Can its databases scale to unlimited size, and is there no limit on the number of mailboxes or applications per server?

Reliability - Does the platform supports clustering? Will it support single mailbox backup and recovery, regardless of messaging architecture, to simplify administration when users corrupt their mailbox? Can it perform automatic routing between servers on the same

network, and highly efficient routing between networks? Will it run on operating platforms that you have confidence in?

Manageability - How easy is it for me to administer? Is there a unified administration tool?

Collaborative Applications - How easy can I use the platform for collaborative applications? Some e-mail systems offer limited collaborative capabilities when installed. Public folders are available for storing shared information, but they contain no application logic. To use public folders for anything beyond basic storage of documents, applications must be developed.

Assuming you have been able to navigate your way through selection of your e-mail messaging system, you now need to complete the second part of the task. Just as a refresher, a unified messaging platform combines e-mail, voice mail, and even fax messaging into a single platform. Generally working in conjunction with the SMTP mail server, a unified messenger provides both a GUI (Graphical User Interface), or the data component, and a TUI (Telephone User Interface) for sending, receiving and managing e-mail, voice mail and fax messages. The SMTP mail server is utilized for users of all message types, and the mail message store stores all the messages, including voice mail. In essence, unified messaging eliminates the need for your legacy voice mail system, and instead leverages your e-mail server to deliver all message types, converging voice and data.

What unified messaging platform will work best with your environment? The evaluation criteria will be critical, especially since you are now encroaching on how people communicate verbally, which is a much more sensitive arena, in our experience, relative to e-mail. Some of the criteria that we would recommend you use are as follows:

Multiple message types -The foundation is having multiple message types-voice, fax, and e-mail-arrive at a desktop user

interface such as Microsoft Outlook/ Exchange or Lotus Notes. From either, the user must be able to see all three messages waiting in their inbox-each message distinguishable by an easy to read graphical icon or it is not unified messaging.

Easy to check - The second basic feature is users should be able to manage all three message types from the telephone, allowing individuals to receive messages when they are out of the office and don't have access to their PC. In particular, make sure that for voice mail the system is as easy to use as the existing voice mail platform to avoid end user frustration.

Easy Administration to Reduce Costs - A benefit of unification is the single administration point for voice mail and e-mail. The unified messaging system you select should share the same directory as the Exchange network or Lotus Notes so that you can make subscriber moves, adds, and changes from one place, eliminating redundant tasks. Typically moves, adds, or changes to a user account costs between $75 and $100, thus eliminating duplicate administration for separate voice and e-mail systems has great ROI.

In addition, because all messages are housed in the same message store, you can also back-up voice messages via your well defined IT back-up procedures. Remember, voice mails can be mission critical files as well!

Flexible Integration - Unified messaging has its roots in convergence, and most are friendly to IP-based voice solutions, such as the IP PBX and IP Contact Centres. However, make sure the platform you select will also easily integrate to legacy PBX technology, including knowing how the two will connect to ensure that there is a realistic connectivity solution.

Text-to-Speech, Speech-to-Text, Multilingual Capability - Text-to-speech (TTS) is a core functionality of any unified messaging product, but to be truly user friendly the platform long-term will

need to support Speech-to-Text. Either way, as there is a "translation" factor, it is critical that the platform you select will support, in addition to English, languages such as Dutch, French, German, Spanish, Japanese and Chinese. Within languages such as English, it needs to support the various dialects (for example, Australian, New Zealand, U.K., and U.S.) that could lead to confusing translations due to vocabulary or accent!
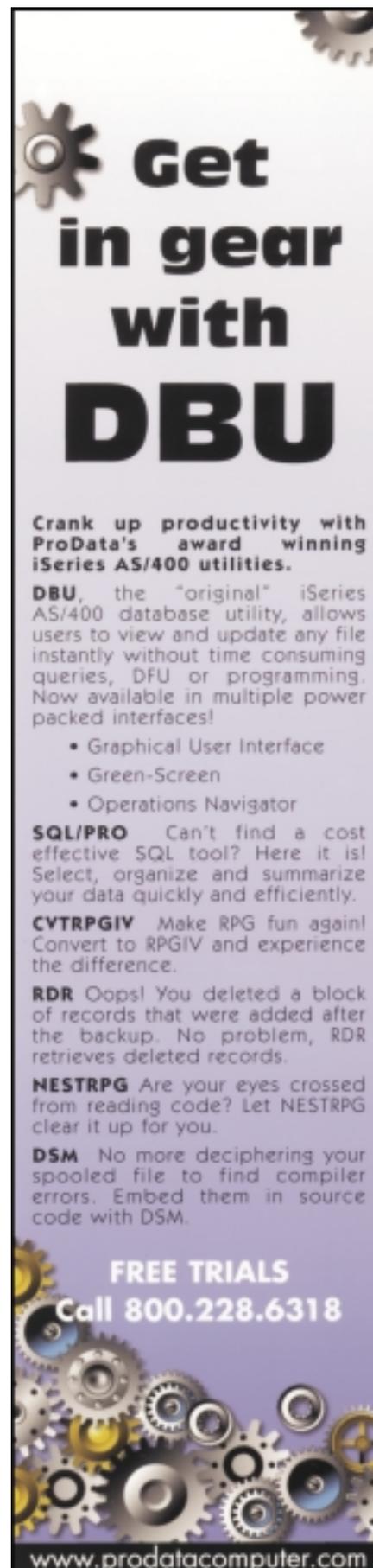
In the end, long-term strategy, not technical wizardry, will be the most important influence on your decision as to the right platform. Both Exchange and Domino can deliver the goods in terms of enterprise class e-mail messaging. The key is to understand where your organization will evolve to in terms of business communication. If workflow applications are important to your business and are already integrated to Domino, then this builds a strong case to adopting Lotus Notes as the standard. If your business is highly interactive and relies on voice transactions, then you may find that Exchange will provide a more robust and flexible platform.

As always, there is not a right or wrong answer, just simply a decision that is best for your organization. However, just remember, that when you don't know where you are going, while there is no wrong path, there is clearly no right path either. In the end, involving the business managers to craft a long-term business communication strategy will be more crucial to your selection strategy than any technical guidance I can provide. T G

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