
White Paper

July 1997

CHOICES in Electronic Messaging

No matter what your future
electronic messaging strategy,
there is a Hewlett-Packard
solution available to your
company

Options and recommendations available to organizations currently using HP Open DeskManager

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Introduction

The rate of innovation in the electronic messaging marketplace continues to accelerate, with new products constantly appearing. The benefits that organizations can derive from electronic messaging are now indisputable; however, the choice and rate of innovation is making it increasingly difficult for organizations to define the optimal electronic messaging environment to meet their business needs.

HP Open DeskManager provides today a highly competitive electronic messaging solution, and can readily take advantage of many of the new messaging technologies which are emerging. However, it needs to be recognized that the rate of innovation in HP Open DeskManager is now slowing, and over time the product will become less competitive. For many organizations, the capabilities in HP Open DeskManager are underutilized today, and the product will continue to meet (and in many cases exceed) their needs in the foreseeable future. However, in other cases, organizations are re-evaluating their electronic messaging strategy; in these cases the current environment may need to be complemented or supplemented in some areas, or the entire electronic messaging environment may need to be reevaluated.

Through extensive market research, and close collaboration with key industry watchers and consultants, Hewlett-Packard has developed a framework to assist customers in evaluating their options, and defining the most appropriate strategy for evolving their IT infrastructure. We call this conceptual framework "Choices". This White Paper describes the choices facing organizations by examining the three primary strategies frequently adopted by HP 3000 customers. It also suggests paths a company may take to address their specific needs and strategies.

Key Strategies

Information Technology (IT) continues to change and evolve at a staggering speed. The challenge before senior management in virtually all functional areas is how best to take advantage of these innovations to best meet organizational objectives.

The Commercial Systems Division (CSY) of Hewlett-Packard Company is chartered to address HP 3000 customers' strategies and directions. It recently took a close look at the plans of representative customers to understand how their business needs were evolving, and how Hewlett-Packard could best provide products and services to meet these evolving needs.

In late 1994, the first round of extensive research for electronic messaging customers was completed. Through this initial research and subsequent studies, key trends began to emerge, and it became clear that organizations were typically approaching their future IT challenges by adopting one of three strategies. The following provides a look at these key strategic directions.

How strategies are chosen

This paper assumes that a choice of strategy has been made. However, it may be helpful to understand why a particular choice was made. It not only sets the context of choice, it also helps others with the process of choosing what is best for their situation.

The following is a brief overview of the thought processes in choosing which electronic messaging strategy best meets the needs of a particular organization. A list of people, organizations or tools that can help in your choice is included at the end of this document.

According to CEOs and CIOs from a variety of industries, the selection of a strategy is determined by examining both the perceived value, as well as the potential value, offered by electronic messaging in meeting organizations' business needs. Before selecting a new electronic messaging infrastructure (or continuing with an existing one), it is necessary to review these needs and expectations.

The following are common questions HP customers have asked to determine their businesses' specific needs in the course of their search for an IT strategy. Each question is followed with a brief description of where the answer may be found.

Where do my end-users perceive electronic messaging adds value to them?

Value-chain positioning

How can my electronic messaging infrastructure best meet those needs?

Look within the business plan: specifically at business strategies, ROI and goods and services

How long will it take to make all this happen?

Review the plan for specific implementation timelines

Does my current application environment support these actions?

Review IT strategies, including applications, staffing and technology.

Three Key Strategies

These five questions can be answered with one of three summary responses, each generating an IT strategy. Each of these answers, along with its corresponding strategy, is briefly described immediately below and in greater detail throughout this paper.

Grow existing environment

Answer: "My existing electronic messaging infrastructure best meets my company's business strategies."

Strategy: The company continues to use HP Open DeskManager as their electronic messaging backbone, but may upgrade hardware and supporting technology as the need arises. The company may also implement additional modules of HP Open DeskManager (such as those available in HP Open DeskManagerPLUS) as required.

Add-on applications/functionality

Answer: "My existing messaging infrastructure best meets my needs but the overall solution needs additional functionality."

Strategy: The company keeps HP Open DeskManager, but substitutes components from other vendors to complement or supplement the core messaging backbone. Additional hardware may also be required.

Deploy New Applications

Answer: "HP Open DeskManager no longer meets my company's needs."

Strategy: The company must move from HP Open DeskManager to a replacement application which better meets the needs of the company. This could entail hardware acquisition as well as software.

Overview of Electronic Messaging Usage within HP 3000 Customers

In virtually every situation, no single strategy is correct; there are many choices. The strategy chosen depends on how the questions are answered. In any event, answers should always be the perspective of the electronic messaging customer, not the provider of applications or hardware.

As part of its research, HP polled all types of organizations with a variety of needs. The results indicated that there are a surprising number of common responses.

Demographics

Here is a quick look at the demographics of electronic messaging using HP 3000 based electronic messaging solutions:

Size and Scale:

The majority of HP 3000 electronic messaging customers have two or more sites and are companies with gross revenues between \$50 million and \$750 million.

User Environment:

Although PC usage is increasing, terminals still dominate: 50% user terminals, 40% PCs, and 10% use either UNIX workstations or Apple® Macintosh. (Percentages approximate.)

Location:

Geographically, 45% of the companies are in the US and Canada, 38% in Europe, 15% in Asia Pacific and 2% in both Latin and South America.

Choices by Customers

According to HP's research, more than three-quarters (75%) of the electronic messaging customers currently using the HP 3000 will continue using the HP 3000 as the platform choice for their electronic messaging into the next century, in total or in substantial part.

Most respondents also indicated that UNIX systems would find increasing use along with their HP 3000s, and that PC networks would grow in importance. Many customers commented that the HP 3000 offers unique advantages for

mission critical business computing and is particularly suited for electronic messaging. This was especially true for total integration in a "mixed" technology environment.

Responses to specific strategies were as follows:

Grow Existing Environment:

Approximately 75% of all customers plan to *Grow Existing Environment* (HP Open DeskManager) they currently have. It meets the current and projected needs for the next three to five years. The spread is dependent on HP Open DeskManager package currently used.

Supplement:

Approximately 20% of the customers want to supplement their HP Open DeskManager electronic messaging backbone with complementary software. Groupware, EDI, and other mail-enabled applications are among the most common applications customers want to add.

Deploy New Applications:

A portion of the customers surveyed are looking for a "next generation" electronic messaging package to replace their current application.

The majority of HP 3000 electronic messaging customers want to move at their own pace, evolving their HP Open DeskManager environment, rather than take radical action.

Help in Selecting a Strategy

Virtually all customers interviewed said they periodically review their IT strategies, in varying degrees of formality. Almost all use some form of external assistance, either external to a department or external to the company.

Customers indicated that the highest level of satisfaction occurs when strategy reviews are assisted by external parties well-matched to their department, division, or company. The following are criteria to consider when selecting appropriate consultants:

Scale:

A consultant must understand the scope or size of the company as well as the implications of the various strategies on that company. The consultant can help an organization avoid an inadequate strategy as well as one that is excessive.

Business Affinity:

A consultant or external party must understand the nature of the company's business. This also includes matching the appropriate evaluation process with the way the company does business.

Technical Expertise:

An external consultant not only must understand the client's business and the technology, but also the potential impact of the technology on that company and its objectives.

Trust:

A consultant must keep the client company's interests a priority. He or she should assist the client in making a decision, but not try to impose a decision on the organization. The external party should work as a trusted advisor.

Constraints:

Select a consultant who understands any organizational constraints and pressures, and is capable of successfully working within these constraints.

Grow Existing Environment

The *Grow Existing Environment* Strategy is appropriate in situations where a company has determined that its current solution meets its electronic messaging requirements. HP Open DeskManager environment provides the functionality required for today's needs as well as for a minimum of the next 18 months. The current solution meets or exceeds the expectations of the user community, and contributes to the business objectives of the organization.

Example of *Grow Existing Environment* Strategy

The following hypothetical example is drawn from the actual experiences of several customers or customer sites ranging in size from \$100 million (US) to \$500 million.

All-Chem, a highly profitable machine chemicals manufacturer who works with a select group of distributors, chose to *Grow Existing Environment* with HP Open DeskManager. HP Open DeskManager provides the functionality required and has the necessary infrastructure components to meet *All-Chem's* needs for an estimated five years. This manufacturer's electronic messaging needs are clearly met by HP Open DeskManager.

Although *All-Chem* has not yet implemented all the functionality or components of HP Open DeskManagerPLUS, it plans to do so over the next 12 months. In particular, it expects that the remote administration capabilities of the product will result in significant cost savings and a fast payback, and it expects to use the HP Open DeskManager Intrinsic for application integration.

All-Chem is using the HP 3000 technology enhancements to continue to provide the infrastructure to meet its needs. The PC users will all be moving to HP DeskNote, the new text editor, which responds to a number of user requests.

All-Chem already has an application which lets month-end reports be automatically distributed through the organization. *All-Chem* is now investigating extending this capability, using HP Open DeskManager Intrinsic to develop a more advanced application to allow critical applications to use email to provide alerts and notifications.

All-Chem is working with regional HP 3000 Client/Server Integrators for assistance with client/server implementations. In particular, *All-Chem* is moving towards a client/server messaging solution, implementing PC clients to the

HP Open DeskManager server to improve ease of use and integration with the PC-based packages which are becoming increasingly common on the employees' desktops.

The net result is: *All-Chem* continues to achieve its electronic messaging IT objectives with a relatively low-cost approach. *All-Chem* believes that for its needs, type of business, position in the value chain and direction, there is excellent payback using the *Grow Existing Environment* strategy and keeping its HP 3000-based HP Open DeskManager solution.

Although alternative electronic messaging solutions are available which would also meet *All-Chem's* needs, there would be little or no incremental value to be achieved by moving to these solutions. Moving to an alternative product would be excessively expensive and disruptive for the amount of return. HP's long term commitments to both the software and hardware provide a solid foundation to *All-Chem*.

Grow Existing Environment Choices

Various options are available to electronic messaging customers who choose to *Grow* their *Existing Environment*, some of which were illustrated in the *All-Chem* example. Depending upon resources, a company may elect to exercise these options on their own or use external parties; the example used both internal and external expertise to achieve the end result.

HP Open DeskManager

Enhance functionality:

Implement PC clients to the HP Open DeskManager backbone. This allows a simple and effective evolution to a client/server environment at minimal cost, while fully leveraging the existing HP Open DeskManager environment and product functionality.

Enhance utilization and effectiveness:

Customize or modify HP Open DeskManagerPLUS using the existing customization capabilities built into the product; or use HP Open DeskManager Intrinsic to more closely tie your electronic messaging environment into your overall applications environment.

Enhance the operating environment

Consolidation:

Many organizations are finding that consolidating the electronic messaging services in an organization to servers optimized for electronic messaging can bring significant performance improvements coupled with cost reductions. HP PSO or third-party can assist in this effort.

Network Optimization

Recent releases of HP Open DeskManager have increased the product's effectiveness in a distributed environment. This includes improved centralized system management capabilities, as well as tools to maximize network effectiveness, such as data compression utilities (available in HP Open DeskmanagerPLUS).

Operations efficiency: Improve the methodologies used to "run" HP Open DeskManager and systems by working with HP PSO or third-party consultants to provide a smooth operation, cover contingencies (maximize availability) and reduce costs. A typical example is improved procedures for directory synchronization.

Technology

IT strategic planning: Develop and implement strategies to map IT to business needs, working with HP or third-party consultants to develop a three-year plan.

Cost reduction: Explore means of keeping the environment current while reducing cost. This includes potential utilization of out-sourcing as well as consolidation.

Grow Existing Environment: Recommended Actions

HP offers several specific recommendations based on results customers have achieved. Prior to implementation, however, these recommendations must be assessed in terms of each company's specific needs. HP is available to assist in the evaluation.

Upgrade hardware: For companies with a non-PA-RISC system or an older PA-RISC system, dramatic increases in performance and throughput can be achieved by upgrading hardware. Approximately 30% of all electronic customers use HP 3000 classic systems. Over half of all customers expressing concern with today's applications, indicated that discontent with HP Open DeskManager may be a result of performance and capacity issues. Upgrades also give you time to re-assess the situation and usually are a relatively inexpensive way to buy that time.

Implement the latest version of operating system software and DBMS: Many performance and system improvements as well as new functionality have been incorporated in MPE/iX or IMAGE. These especially include improvements in screen handling which will dramatically improve the performance of the new text editor (HP DeskNote). These capabilities can extend the life and usefulness of HP Open DeskManager. In addition, much new functionality in existing applications are dependent on these features.

Implement the latest version of HP Open DeskManager: Many new features have been implemented in the last few releases of HP Open DeskManager, notably in the area of PC integration, performance, and system management in larger or more distributed environments. Make sure that you are familiar with the new functionality, and that the latest version of the product is installed on your system.

Support Services: HP's goal is to help its customers make the right choice and, if required, enable customers to evolve their electronic messaging systems over time to meet their ongoing requirements. For those HP customers who wish to continue to use HP Open DeskManager, they can do so with the confidence that HP will continue to support and maintain HP Open DeskManager. Customers purchasing support will also benefit from MPE/iX update releases, expert center services and extended "classic" HP 3000 hardware support life periods. Critical patches, as necessary, will continue to be provided. Customers are not required to update to new releases of HP OpenDesk to be supported, they can continue with their current configuration until they eventually move on to a new solution. However, if a critical defect has been resolved in a later release then customers may be required to upgrade.

Get help: Work with an HP Open DeskManager provider or a consultant (please see the *Grow Existing Environment* Resource List). Most customers tend to prefer regional or local consulting services.

Grow Existing Environment Resources

The names of resources for products and services, as well as specific products are detailed in Appendix B.

Supplement Strategy

When a customer adopts the *Supplement Strategy*, it is an acknowledgment that the current core application meets a significant portion of the organization's electronic messaging needs. The needs in other areas can be met by adding or supplementing functionality to the HP Open DeskManager electronic messaging backbone.

Demographics

A small percentage of the customers running electronic messaging on the HP 3000 are looking for supplementary packages, depending on which solution is being used. The most highly sought packages are:

Internet Access:

Internet is the most rapidly growing area of electronic communications, and it is becoming as common as the telephone or fax for many organizations.

X.400 Access:

Although X.400 does not enjoy the popularity or success of the Internet, it provides a much more powerful and robust solution for the serious business-to-business user. In many market segments it is mandatory (e.g. many Government applications mandate X.400 use).

Other Gateways:

Many larger organizations have a heterogeneous electronic messaging environment. Tying these differing solutions together can be achieved through industry-standard connections such as the Internet or X.400, or alternatively through proprietary gateways.

Mail-Enabled Applications

With the proliferation of workstations on the desktop, there is an increasing need to tie these workstations (typically PC, UNIX workstations or Apple Macintosh) into the corporate messaging infrastructure. The implementation of this client/server architecture then "opens the door" for a wide range of mail-enabled applications such as decision support, workflow, or calendar/scheduling.

Decision Support: Software tools that facilitate the decision making processes in an organization are highly sought-after packages. Over 20% of the HP 3000 electronic messaging customers will need this type of software in the next two to five years.

Electronic Data Interchange (EDI) or Electronic Commerce: This is software and hardware that allows electronic exchange of transactions between trading partners.

This may be integrated into the overall electronic messaging environment, or may be a stand-alone module. Over 30% of the HP 3000 customers have expressed a desire to implement EDI working with their existing electronic messaging packages.

Example of Supplement Strategy

A viable option is to supplement HP 3000 core applications with either HP 3000 applications or with UNIX applications running on an HP 9000. In the following example, it is assumed that MPE/iX-based complementary/supplementary applications will be used.

The following hypothetical example is drawn from the actual experiences of several customers or customer sites ranging in size from \$100 million (US) to \$500 million.

Silicon Computer Systems (SCS) manufactures PCs. It uses HP Open DeskManagerPLUS as its core application. Although HP Open DeskManagerPLUS will meet *SCS*'s electronic messaging requirements for some time, the company has identified a need to improve some of its internal processes, and to better communicate to its business partners through X.400 messaging.

SCS elected to use a three-level IT strategy that extends the capabilities of its existing HP Open DeskManager electronic messaging infrastructure.

1. The company plans to implement access to both X.400 and Internet services through the use of an OpenMail gateway;
2. It will automate its sales force by adding mobile user access;
3. *SCS* will "mail-enable" their internally-developed PC applications.

By more fully utilizing the capabilities of HP Open DeskManager, and by adding supplementary capabilities through additional software, *SCS* will evolve its existing environment into a more flexible environment better matched to the customers' evolving needs. Let us look at this example in more detail:

The addition of an HP-UX server, with OpenMail and X.400 capabilities, enables the organization to readily connect to X.400 and the Internet. Putting this functionality on a separate box has the added advantage that this gateway can be isolated from the remainder of the HP 3000 environment, providing greater control and resiliency against unplanned downtime (a "firewall").

HP Open DeskManager Release C.03 provides support for remote users. This will enable users of laptop or palmtop PCs to access their messages over a telephone/modem link, using either the cc:Mail Mobile client, or a mobile version of HP's Mobile Client for Windows. Typically used where there is a remote, mobile salesforce, this capability is often further improved by providing integration (through email) to other applications. HP DeskManager Intrinsic makes this application integration straightforward.

Finally, SCS will utilize the advanced PC Integration capabilities of HP Open DeskManager. Through MAPI (in this example) to provide a closer degree of integration and task automation with PC-based applications such as Microsoft® Excel, or Microsoft Word. Macros developed for the PC environment can now call email as part of their functionality, enabling significant improvements in individual productivity.

Supplement Choices

The *Supplement* strategy is often able to meet needs without replacing the existing electronic messaging backbone. However, there may be concern about how to integrate supplementary applications with HP Open DeskManager.

Many HP 3000 customers are surprised at the availability of supplementary applications and the relative ease in using them as well as available help in implementing such a strategy. As the HP 3000 continues to provide advanced interoperability and selected partners port to the platform, this ease continues to grow.

Companies using the *Supplement* strategy see it as a superset of the *Grow Existing Environment* strategy and as such use the *Grow Existing Environment* strategy choices. So, in addition to the *Grow Existing Environment* strategy choices, the supplement choices are:

Complementary Enhancement: Implement enabling software and/or hardware which will add capability to HP Open DeskManager with complementary applications such as EDI, Imaging and decision support.

Supplementary Core Application Enhancement

Implement supplementary modules:

Acquire, integrate and implement non-core applications that are compatible with and extend HP Open DeskManager capabilities. For example, gateways to other electronic messaging solutions, or browsers that automatically provide file conversion.

In-house creation of supplementary modules:

HP Open DeskManager Intrinsic allows organizations to readily create applications that use the capabilities of HP Open DeskManager. Typical examples of this include workflow/forms routing applications, or decision support applications.

In addition, HP Open DeskManager supports industry-standard PC protocols such as VIM and MAPI. This enables organizations to develop a PC-based application which relies on the services of the HP Open DeskManager electronic messaging backbone for the reliable transmission and delivery of messages.

Supplement Recommended Actions

HP offers several specific recommendations based on results customers have achieved. Prior to implementation, however, these recommendations must be assessed in terms of each company's specific needs. HP is available to assist in the evaluation. (See contact information at the end of this document.)

Begin with the recommended actions described in the *Grow Existing Environment* strategy. These actions will establish the infrastructure for many of the following recommendations.

Supplement/Complement: If an organization's needs include gateways, EDI, imaging or decision support, then HP recommends the following products and/or services.

Gateways: HP suggests the following gateway vendors:

- OpenMail for X.400 or Internet access
- 3K Associates for Internet access
- Linkage Software for gateways to other systems
- Control Data Systems for gateways to other systems
- Genesee Software Inc. for gateways to other systems

EDI: Suggested EDI solutions:

- Perwill EDI
- Sterling Software
- EDI Solutions
- Frontec AMT, Inc.
- maXware, Inc.

PC Integration: HP recommends that MAPI be generally used for integrating PC applications.

Supplement Resources

The names of resources for products and services, as well as specific products are detailed in Appendix B.

Deploy New Applications Strategy

In the evaluation of its IT needs, a company may determine that its current application is inadequate or will become so in the near future. In such instances, the company decides to replace its current electronic messaging. This strategy is called the *Deploy New Applications* strategy.

The object of the *Deploy New Applications* strategy is to replace the current application with one that best meets the current and future needs of the organization and matches the dynamics of the business environment in a timely manner. This is known as selecting a next generation electronic messaging solution. Since *Deploy New Applications* is a costly and potentially risky proposition, companies should try to select vendors based on that vendor's ability to meet critical success factors. Customers who are well into *the Deploy New Applications* process or have just completed it indicate that a critical factor to success is to make a distinction between the technology infrastructure and value chain positioning.

For example, many customers believe that some next generation solutions offer high benefits in technology infrastructure, such as client server capability, but less benefits in additional functionality. Depending on what needs are to be met and when, this may be desirable. However, if a much needed functionality is not yet available, this could cause problems.

It is important for a company to understand if *Deploy New Applications* is for purposes of setting the foundation for the future, meeting an immediate need or a combination of these. Securing assistance to address this issue also can be a success factor. Our research has indicated that this is particularly true for small to medium-large-sized organizations.

Selection Criteria and Corresponding Demographics

Once a suitable replacement electronic messaging is defined, selection begins. There are several factors or criteria that are frequently considered.

Functionality: The greatest concern expressed by virtually all companies selecting *Deploy New Applications* strategy is that the 'next generation' application has the functionality needed. Most believe that their existing applications serve a great many of the needs of the "re-engineered" organization. However, the "next generation" application is expected to do more. The "next generation" application must provide the same high level of existing functionality as well as additional functionality and infrastructure for the future.

As a result of these expectations, a small portion of companies with "current generation" application have expressed a willingness to entertain *Deploy New Applications* strategy. The variation depends on which "current generation" application is being used and secondary criteria associated with that application, such as confidence in the vendor.

Platform: The hardware and "middleware" environments that support the selected electronic messaging environment. Over half of the companies considering a *Deploy New Applications* strategy wanted to have an HP-UX based solution. The primary reasons given are stability, commercial capability, familiarity, degree of openness and the availability of applications.

Style or Method: The method or style of *Deploy New Applications* options include evolutionary replacement, pilot replacement and all-at-once replacements. Of the companies who chose a *Deploy New Applications* strategy, more than 80% preferred an evolutionary or pilot replacement methodology.

Investment Protection: A strategy which utilizes current investments (e.g. current systems, peripherals) is generally considered highly desirable.

Example of Deploy New Applications Strategy

The following hypothetical example is drawn from the actual experiences of several customers or customer sites ranging in size from \$50 million (US) to \$500 million.

Superior Ceramics, a supplier of household ceramics, has distributed facilities based in the United States, England, and China. The company currently uses HP Open DeskManager for their electronic messaging needs.

Recently, *Superior* aggressively moved from a terminal-host environment to a client/server environment, and the usage of PCs and PC applications has dramatically increased. The company has also decided to standardize upon X.400 for communications with its external trading partners, and is investigating EDI. Additionally, the organization has decided upon a corporate objective to consolidate its current heterogeneous environment onto a single platform—HP-UX—to reduce the complexity (and therefore cost) of their computing environment.

Although HP Open DeskManager continues to meet the current needs of *Superior*, as a messaging backbone it was no longer well aligned with these corporate objectives. *Superior* therefore elected not to grow usage of HP Open DeskManager, but rather to replace this with an OpenMail messaging backbone.

To minimize user disruption and to actively manage the risk involved in rolling out any new solution, *Superior* selected a strategy which combines pilot approach and evolution in several phases.

In Phase I, *Superior* will implement a client/server solution using the current HP Open DeskManager solution. PC users of HP Open DeskManager will be provided with a PC Client for accessing HP Open DeskManager, which integrates well with their existing PC applications and will meet their immediate needs for an easier to use, more effective user interface on the PC.

In parallel, the OpenMail pilot site will be implemented. The PC user interface is the same for OpenMail and HP Open DeskManager, which ensures that user training can be leveraged and that the HP Open DeskManager users will notice little difference when the server component is finally replaced. Communication between the two messaging systems will be transparent due to the OpenMail gateway software. The organization will build experience in the management and administration of the OpenMail system, which will be integrated into their current HP OpenView management domain.

In Phase II, in a controlled fashion the OpenMail servers will be rolled out to the remainder of the organization, replacing the HP Open DeskManager servers. The end-users will reconfigure their PC clients to use the new server; as the functionality of the PC client does not change, user inconvenience is minimized. The few remaining terminal users of HP Open DeskManager will be the last to move.

Deploy New Applications Choices

For the companies selecting the *Deploy New Applications* strategy, there are fundamentally three classes of messaging applications available to them: PC-LAN email systems, workgroup applications, and enterprise messaging servers. These are briefly described in more detail below.

PC-LAN Solutions

For smaller (typically 50 users or under), and for more centralized organizations, there are a broad range of solutions available. For simpler uses of electronic mail, products such as Microsoft Mail and Lotus® cc:Mail are the current market leaders, and provide an excellent choice. However, for more demanding users who require more powerful capabilities in their email solution, an enterprise messaging server may be a better choice.

Workgroup Solutions

For smaller, and more centralized organizations that have a strong need for collaboration (workgroup) as opposed to communication, Lotus Notes provides a strong solution. Although the electronic messaging capabilities are fairly rudimentary, this products provides an excellent workgroup environment. If Lotus Notes is being used in a larger or more distributed environment, it may be more effective if coupled with OpenMail, which would provide the messaging backbone.

Enterprise Messaging:

For larger or more distributed electronic messaging applications, OpenMail is the best choice. It is not only the market leader for this category of electronic messaging systems, but also is a tried and proven solution.

HP Open DeskManager and OpenMail are highly complementary solutions. Users can retain their choice of e-mail desktop clients since these integrate equally well with OpenMail as with HP Open DeskManager. Software tools exist to facilitate the moving of users from HP Open DeskManager to OpenMail. OpenMail operates on NT, Solaris, AIX, HP-UX, as well as many other UNIX platforms. OpenMail provides a broad range of leading-edge electronic messaging functionality including application integration, calendar/scheduling (OpenTime), collaboration databases, web navigator, process management and monitoring, and Internet access.

With OpenMail, Hewlett-Packard is committed to providing its customers the "best of class" enterprise client/server messaging solution that evolves with the customers' changing communications needs, protects customers' current investments, and provides them a continuous competitive advantage.

The basic criteria for a *Deploy New Applications* strategy considers how that strategy will fit the needs of an organization. Does it cover all functionality? Will it meet not only the current, but also the future needs? How scalable is it? How secure is it? And, most importantly, how reliable is it?

After determining the match of an application to these criteria, a company can select either a single solution or multiple solutions.

Single Solution:

This is a single type of solution that will meet the organization's entire spectrum of needs. It is typically from a single vendor, and would comprise of one of the classes of products previously described.

Multiple Solutions

With this approach, the organization selects an enterprise messaging backbone, which provides a consistent enterprise messaging infrastructure in which differing user environments may be implemented. This has the great advantage that electronic messaging can be managed and administered as a single corporate resource, while providing end-users with the flexibility to select the best application to meet their particular needs.

For example, one user group may use Microsoft Mail, another the HP GUI clients on Apple Macintosh, yet another Lotus Notes, in the confidence that it can readily be integrated into the enterprise messaging backbone.

Hewlett-Packard recommends OpenMail as the enterprise messaging backbone.

Deploy New Applications Recommendations

HP offers several specific recommendations based on results customers have achieved. Prior to implementation, however, these recommendations must be assessed in terms of each company's specific needs. HP is available to assist in the evaluation.

It should be noted that many of the customers who have selected this action also have decided to *Grow Existing Environment* with their HP 3000 serving other functions. This takes advantage of the HP 3000's unique business critical computing capabilities. These include database server for Oracle and/or ALLBASE, Novell server, decision support server, EDI server and router.

HP 3000 Investment Protection Program

Hewlett-Packard is committed to the continued success of its customers, regardless of the HP computing platform which the customer decides upon.

In 1995, HP announced a program called "Investment Protection". This is a program to ensure that customers' investments in HP 3000 hardware and software will be leverageable in the future. The program addresses a number of areas, but a key component is the ability to physically convert an HP 3000 server into the equivalent HP 9000 server. This ensures that an organization's investment in hardware and peripherals can be leveraged in the future.

OpenMail Migration Assistance

Hewlett-Packard also offers tools to help customers move their users from HP Open DeskManager to OpenMail. The tools are designed to be easy to use, and make the deployment of OpenMail as straightforward as possible. Please refer to the "HP Desk to OpenMail People Mover Tool" data sheet and user guide which can be found in the OpenMail Encyclopedia on the Internet. Please refer to the Appendix A: Suggested Reading section of this white paper for instructions on accessing the OpenMail Encyclopedia.

Appendix A:

Suggested Reading

The following publications from Hewlett-Packard provide more detail on HP Open DeskManager and OpenMail. Other manufacturers may have equivalent publications, and should be contacted directly. Contact information is provided in Appendix B.

HP Open DeskManager Release Notes for C.03.00

SIG Email is a Special Interest Group sponsored by the Association of Hewlett-Packard Professional Computer Users, INTEREX. The SIG, which meets annually at HP World, produces a regular SIG Email Newsletter. Contact Interex for further information at 1-800-INTEREX or 1-408-747-0227.

OpenMail Encyclopedia (via the World Wide Web) OpenMail information can be obtained via the following URL: <http://www.openmail.external.hp.com>

HP web site can be contacted at the following URL: <http://www.hp.com>

Appendix B:

Providers List

The list of providers and other references to vendors and applications providers are offered for your evaluation. It is HP's intention to help customers by providing a starting place for their efforts. To select an appropriate provider, customers are advised to thoroughly review and evaluate each provider in terms of their organization's specific needs. HP's Professional Services Organization (PSO), and third parties, are available to help in this process.

The organizations that are listed below have regional and local focus. This list does not include the "Big Six" consulting firms or HP Professional Services Organization which are also available.

The providers mentioned in the "Recommended Actions" sections of this document have been carefully evaluated by HP's Commercial Systems Division. Although HP has made every effort to look at multiple factors, brevity and necessity limits the scope of this evaluation. We strongly suggest that you make an evaluation of the suggested providers based on your needs. *Hewlett-Packard is not liable for the products or services of third party vendors.*

If you can not locate a specific vendor or need other assistance please contact your local Hewlett-Packard sales office.

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PROVIDER and MAIN ADDRESS	PHONE	FAX	AREAS of COVERAGE	SPECIALTIES and/or PRODUCTS
3K Associates 6901 Old Keene Road Suite 205 Springfield, VA 22150	1-703-569 9189	1-703-451 3720	North America	Internet Gateways
AVM Informatique 52 Rue de Saint-Genis-Laval 96540 Irigny France	+33 01 78 56 59 13	+33 01 72 39 91 69	Europe	Fax Gateway
Boston Software Works 177 Milk Street Boston, MA 02109	1-617- 482-9898	1-617-542 7956	North America	Gateway Software
Carelcomp Oy Imatra, Havurinne 1 55800 Imatra Finland	+358 0954 2951	+358 0954 295432	Europe	IBM Memo Gateway
Control Data Systems 4201 Lexington Ave., North St. Paul, MN 55126-6198	1-612- 482-4207	1-612-482-2783	Worldwide	Mail Hub Gateway X.400/X.500
CrossWind Technologies, Inc. 1505 Ocean Street Ste. 1 Santa Cruz, CA 95060	1-408- 469-1780	1-408-469-1750	North America	Calendar/Schedulin g
Denkart NV Molenweg 107 B-2830 Willebroek Belguim	+32 3 866 00 22	+32 3 866 03 01	Worldwide	Telex/Fax Gateway
EDT SA 21 Chemin des Pres Zirst 4403 38944 Meylan Cedex France	+33 04 76 41 19 19	+33 04 76 41 24 19	Europe	Autodoc 400 Server Filing System
Email Inc. 2245 E Colorado Blvd., Ste 104 Pasadena, CA 91107	1-818-797-9152	1-818-797-9733	North America	Gateways
Frontec AMT, Inc. Four Landmark Square, Suite 301	1-800-386-2074 or 1-203-977-7100	1-203-977-7134	North America	EDI/ Electronic Commerce

PROVIDER and MAIN ADDRESS	PHONE	FAX	AREAS of COVERAGE	Specialties and/or Products
FTP Software Canada Inc. (FTP Keyword) 2816 Eleventh Street NE Calgary, Alberta T2E 7S7 Canada	1-403-250-1770	1-403-250-1964	North America	Document Conversion/ Interchange
Genesee Systems Inc. 7977 S. Wabash Court Eaglewood, CO 80112	1-800-728-9123	1-303-850-9128	North America	Gateways
Greyhouse Technologies Ltd. The Grey House Ashmead Green Cam, Glos, GL11 5EW United Kingdom	+44 1453 544770	+44 1453 544226	Europe	Consultant/ Integrator UAL Developer
GS Sistemas De Computacao Ltda. Av. Guilherme Dumont Villare 1230 Cj. 56 CEP 05640-002	+55 11 843 7585	+55 11 843 7337	South America	Document Conversion/ Interchange
Haltek PTY. LTD. ACN 006 823 627 Melbourne, Victoria Australia 3004	1-516-431-6011	1-516-431-3341	Worldwide	3270 Terminal Access to Openmail
Hewlett-Packard	Contact your local HP sales representative		Worldwide	Hardware, Software and Services
Hewlett-Packard	Contact your local HP sales representative		Worldwide	HP 3000 Hardware, Software and Services
Hewlett-Packard	Contact your local HP sales representative		Worldwide	Openmail
Inso Corporation 401 North Wabash Ave. Suite 600 Chicago, IL 60611	1-312-329-0700	1-312-670-0820	North America	E-Mail File Attachment Utility
Intellect Services Ltd. Bix Manor Broadplat Lane Henley-on-Thames Oxon RG9 4RS England	+44 1491 411698	+44 1491 411415	Europe	Virus Firewall Utility

PROVIDER and MAIN ADDRESS	PHONE	FAX	AREAS of COVERAGE	Specialties and/or Products
InteQ Corporation Corporate Place One 99 South Bedford Street Burlington, MA 01803	1-617-273-2330	1-617-273-2215	Worldwide	Consultant/ Integrator
Jetform Corporation Watermill Center 800 South Street Waltham, MA 02154	1-800-JETFORM	1-617-647-4121	North America	PC Forms Software
Lane Telecommunications Ltd. Lane House, Priors Way Maidenhead Berkshire, SL6 2XJ United Kindgom	+44 1 628 785351	+44 1 628 781611	Europe	Fax/Telex Gateway
LDS Datensysteme GmbH Schuberstr. 2 415647 Kaarst Germany	+49 0211 7976263	+49 2131 511156	Europe	Client Library for Developing Clients of Choice
LinkAge Software 11 Church Street, Suite 400 Toronto, M5E 1W1 Canada	1-613-594-9244	1-613-233-9625	North America	Automatic Directory Synchronization Consultant/Integrator
maXware Inc. 4 Mayfair Lane Westport, CT 06880	1-203-226-2866	1-203-221-9274	North America	EDI/Electronic Commerce P7 Client for Openmail
Minisoft Inc 13617 State Highway 9 Snohomish, WA 98290-8721	1-206-833-1353	1-800-682-0200	North America	Word Processor (Miniword), PC Application Integration (Perfectdesk)
Mitsubishi Electric Corp. 325, Jamimachiya, Kamakura Kanagawa 247, Japan	+81 467 43 8248	+81 467 41 1208	Japan	Consultant/Integrator
Multicom Software Hietakallionkratu 2 53850 Lappeenrata Finland	+358 53 6257400	+358 53 257500	Europe	Fax Gateway
Novatel Communications 58 Rue Roger Salengo Peripole 13 94126 Fontenay Sous Boix Cedex, France	+33 01 48 76 90 90	+33 01 48 76 10 30	Europe	Bureautel - Minitel Interface

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NSD Inc 1400 Fashion Island Blvd Fourth Floor San Mateo, CA 94404	1-415-573-5923	1-415-573-6691	North America	Report Management
OKI Electric Industry Co., Ltd. 10-3, Shibaura 4-chome Minato-ku Tokyo 108 Japan	+81 3 3454 2111	+81 3 3798 7129	Japan	Japanese OpenMail Client
OpenScope PO Box 3226 Redwood City, CA 94064	1-415-364-2517	1-415-364-2517	North America	Document Management
Proactive Systems Central Court Knoll Rise Orppington, Kent BR6 0JA, England	+44 689 877933	+44 689 891475	Europe	Laser Printer Manager
Protek 1, York Road Maidenhead Berks, SL6 1SQ United Kingdom	+44 1 628 75959	+44 1 628 73013	Europe	Consultant/ Integrator
RMS Business Systems	1-708-215-1661	1-708-215-1953	North America	Sales and Consultancy
Robelle Consulting Unit 201 15399-102A Avenue Surrey, BC Canada V3R 7K1	1-604-582-1700	1-604-582-1799	North America	Qedit - Online Screen Editor
Siren Software 505 Hamilton Avenue Palo Alto, CA 94301	1-415-462-5859	1-415-322-9999	North America	Fax Gateway
Symantec Corporation The Delrina Group 895 Don Mills Road 500-2 Park Centre M3C 1W3 Canada	1-800-228-1858	1-416-441-0333	North America	Forms Processing
Telindus Networks Ltd. Leat House, Overbridge Square, Hambridge Lane Newbury Berkshire RG14 5UX United Kindgom	+44 0 1635 30110	+44 0 1635 38600	Europe	Fax/Telex Gateway

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The Apex Group, Inc. 7151 Columbia Gateway Dr., Bldg F Columbia, MD 21046	1-410-312-2650	1-410-290-0219	North America	Consultant/ Integrator
The MESA Group 29 Crafts Street Newton, MA 02160	1-617-964-7400 x205	1-617-964-4240	North America	Conferencing
TOPCALL Corporation 940 West Valley Road, Suite 1204 Wayne, PA 19087	1-610-688-2600	1-610-995-4339	Worldwide	Fax/Telex Gateway
Tuebner & Associates, Inc. Seventh & Main Stillwater, OK 74076	1-405-624-2254	1-405-624-3010	Worldwide	Fax Gateway
Uniplex Software, Inc. 1333 Corporate Drive, #240 Irving, TX 75038	1-214-753-6544	1-214-756-8550	Worldwide	Calendar/Scheduling
Visioneer 2860 W. Bayshore Road Palo Alto, CA 94303	1-800-787-7007	1-415-855-9750	North America	Document Utility (PaperPort)
Walker, Richer & Quinn 2815 Eastlake Ave. E. Seattle, WA 98102	1-206-324-0407	1-206-322-8151	North America	Terminal Emulation, File Transfer (Desk Direct)
Wick Hill PLC River Court Aslbert Drive Wokingham GU21 5RP Surrey, England	+44 483 772280	+44 483 772090	Europe	Fax Gateway
Worldtalk Corp. 5155 Old Ironsides Drive Santa Clara, CA 95054	1-408-567-1500	1-408-567-1501	North America	Gateway Software

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