

White Paper

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Best Practices for Delivering Email to the Extended Enterprise



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Executive Summary

Knowledge workers ranging from executives, managers, and professionals to administrative support staff have near universal access to email and collaboration tools that enhance their productivity, speed and communication, and facilitate informed decision-making. Indeed, email is the preferred mode of communication for most people, according to research by the META Group.

However, knowledge workers comprise only about 50 percent of the total enterprise workforce. One third to one half of employees are “deskless or non-traditional workers” without an office, cubicle, desk, or Personal Computer (PC). Among them are retail store clerks, factory floor workers, service technicians, nurses, delivery personnel, bank tellers and even traveling executives and sales representatives—every industry sector from manufacturing and healthcare to government and retail is faced with the challenge of providing effective communication to large groups of workers.

Enterprises can increase productivity and reduce costs by providing deskless and non-traditional workers with access to a subset of the email and collaboration tools that most knowledge workers have come to rely on. The high costs and additional management requirements of traditional solutions, however, have prevented most enterprises from implementing such solutions

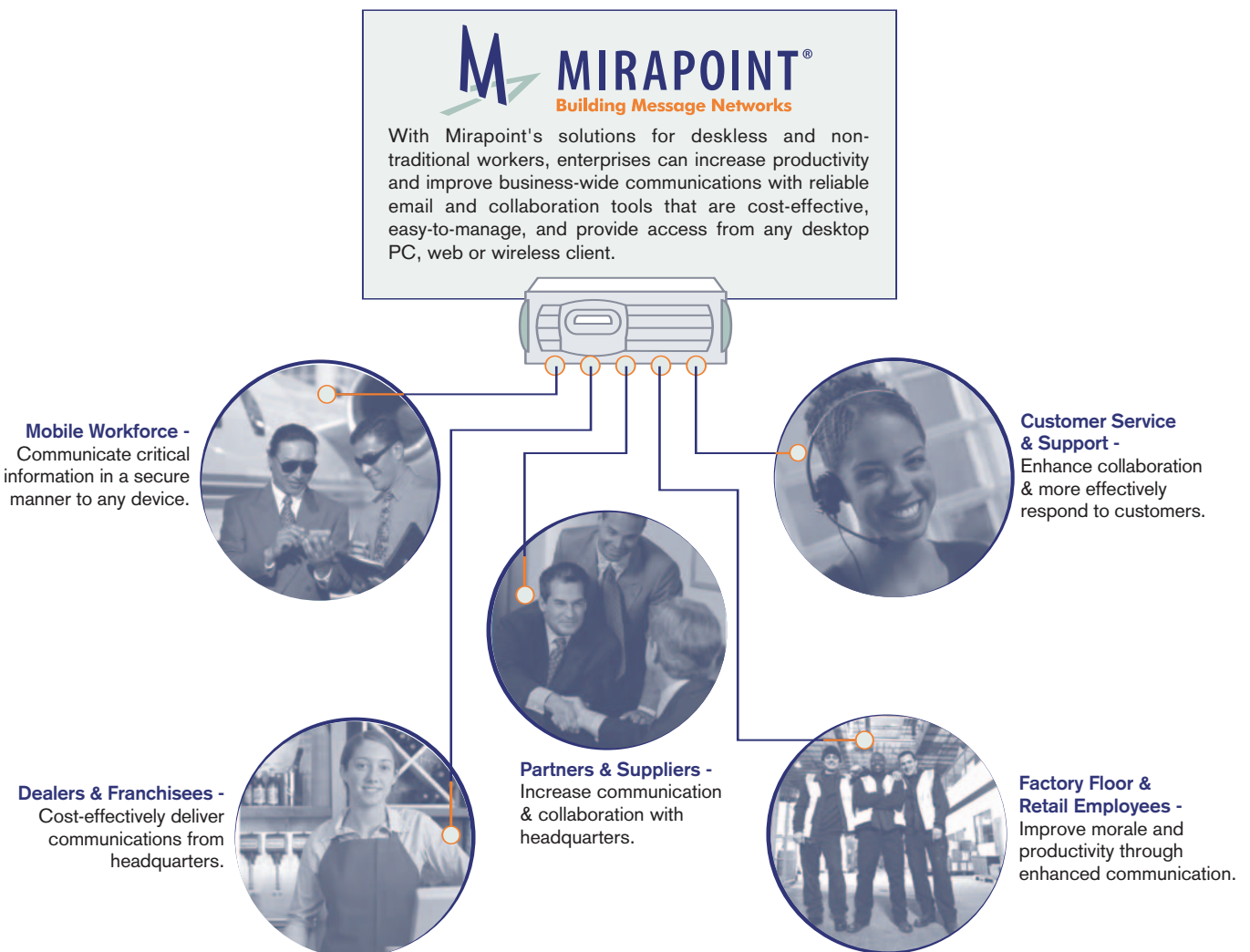
Mirapoint offers a solution that is cost-effective, secure, and easy to deploy, manage, and use. It is designed to work with and leverage existing tools and systems, minimizing the impact on users and system administrators. In addition, administrators using Mirapoint’s class-of-service controls have the ability to deploy just a basic set of services to their deskless and non-traditional workforce versus the full “knowledge-worker” set.

Adoption Drivers

Lacking a dedicated PC, few deskless or non-traditional workers have access to email or other collaborative applications today. Yet they are active contributors who play an important role in the life and success of the business. Their participation in day-to-day operations is important. Businesses that draw on the knowledge and experiences of their deskless workforce stand to benefit. By extending email access to these employees, businesses can facilitate communications, increase productivity, improve loyalty and reduce costs.

According to Mark Levitt, vice president of Collaborative Computing at IDC, "Providing email to deskless workers enables the organization to speak to all employees at the same time with a consistent voice. Deskless workers feel more connected to the organization because they know what's happening, which tends to improve morale and employee satisfaction."

Figure 1: Servicing the Deskless Workforce



Deskless workers not only feel more connected—they are more connected. Providing them with email and collaboration tools opens up two-way communication within and between workgroups. Peer-to-peer and subordinate-to-supervisor information exchange encourages knowledge transfer, enables more frequent status updates, stimulates quality improvement programs, reduces risk of errors, and streamlines the decision-making process.

Deployment Taboos

While the benefits of extending email and collaboration tools to deskless workers may appeal to large enterprises, the costs of deployment, management, and added infrastructure complexity have made them prohibitive.

Enterprises who have attempted to offer email with their current solution, such as Lotus Notes or Microsoft Exchange, are faced with high license fees for these products and advanced collaboration features that their deskless and non-traditional users won't even use. In addition, the server load for these types of solutions is significant, creating a management nightmare with the added servers needed to offer email to the thousands—or tens of thousands—of deskless or non-traditional workers within the enterprise. Enterprises simply don't have the budget or resources to extend email throughout their enterprise with these traditional products.

Enterprises need a cost-effective, economical way to deliver email to the deskless workforce.

A low-cost alternative adopted by some organizations is free messaging services such as Yahoo! Mail and Microsoft's Hotmail® or consumer ISP services. These externally hosted solutions dramatically reduce costs, but expose companies to potential vulnerabilities. Enterprises have no control over security or use. Sensitive or confidential emails are not controlled. Employees can use, or misuse, the service with no oversight by their employer, which could raise liability issues. And the enterprise must rely on the service provider to control viruses and spam, as well as maintaining proper backups of critical email data in case of server failure. Finally, the look and feel reflects the service provider, not the look and feel or corporate branding of the enterprise.

Email for Deskless and Non-Traditional Workers

Solution Requirements

Deskless and non-traditional workers, and the companies they work for, would clearly benefit from access to email and at least some subset of the collaboration tools currently employed by their knowledge-worker counterparts. Current email systems don't offer a practical solution.

Needed is a cost-effective, easy-to-use solution that enables deskless and non-traditional workers to conveniently access email and collaboration tools from wherever their job takes them at anytime. To realize the power of company-wide communication and collaboration, this solution must also fully integrate with current email and collaboration tools used by the knowledge workforce—and the existing infrastructure.

Additionally, the ideal solution must be scalable, highly available, affordable, manageable, and employ some of the critical advanced email services like webmail, group calendaring, and to-do lists.

Scalability

A large enterprise with 20,000 knowledge workers may have another 15,000 to 20,000 deskless or non-traditional workers, in addition to suppliers, customers, and business partners who might benefit from better communication and collaboration. Solutions that can only support a few hundred users on a server create a management nightmare by more than doubling the number of message servers required. Scalability is key.

Enterprises must look for a solution that is highly scalable to handle increased message volume without

impacting performance or breaking budgets. The system should also enable easy expansion and upgrades. And individual servers should support large numbers of users to reduce the number of servers required to minimize cost and space requirements.

The Mirapoint Message Server delivers unequalled scalability to handle potentially millions of emails per day with a solution that is purpose-built to provide optimum performance, reliability, and high availability. Each Message Server can support hundreds of thousands of users, reducing the number of servers required, as well as the complexity and resources needed to manage the system. Mirapoint also delivers proven, industry-leading performance based on the SPECmail benchmark. It additionally provides storage options for Mirapoint Redundant Array of Inexpensive Disks (RAID), as well as networked storage such as Storage Area Networks (SAN) and Network Attached Storage (NAS). And scalability can be achieved by adding Mirapoint systems as needed, either to handle increasing user and message volumes or for adding new messaging-related services.

High Availability

Many enterprises consider email and collaboration tools mission-critical applications. It is essential that these systems maintain high availability with built-in redundancies and failover protection to minimize downtime. They must also be easy to manage with utility-like reliability.

The Mirapoint platform delivers proven, industry-leading 99.999% uptime, based on the actual monitoring of hundreds of deployed Mirapoint systems. Multiple levels of redundancies, such as power supplies, cooling fans and battery backed-up RAID controllers help ensure continuous operation.

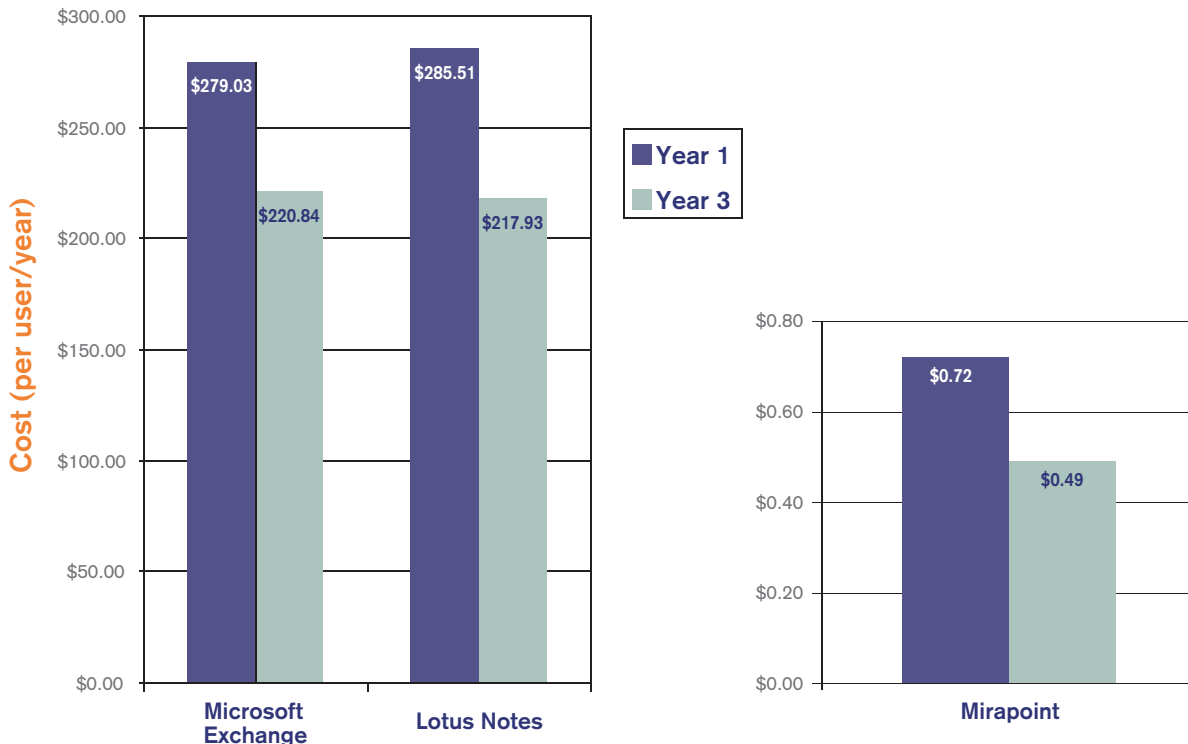
While traditional solutions attempt to bring together hardware and software components from different vendors, Mirapoint systems have been designed from the ground up as a single, integrated, and optimized solution. The entire system is purpose-built to deliver optimized performance between the software, operating system (OS), and hardware, as well as storage layers for the highest levels of reliability. Every aspect of the solution has been pre-tested to ensure compatibility and ongoing reliable operation, while providing simple, unified management

Affordability and Manageability

Enterprise resources are not boundless. Messaging solutions must be both affordable and manageable. This includes capital costs to deploy, as well as ongoing costs to operate and maintain the system. Administrators should additionally seek out a solution that offers an easy way to apply upgrades, manage the entire message network, and effortlessly add new features and functionality.

Mirapoint offers the lowest total cost of ownership (TCO) in the industry. With hundreds of thousands of users supported on a single server, fewer servers are required, leading to lower capital investment. And ongoing management is easy with Mirapoint’s unified administration tools that give complete control of all software and hardware components via web-based management or command line tools. Plus, a Mirapoint system can be deployed and operational in minutes.

Figure 2: Enterprise Messaging Cost Comparison Chart



Source: Radicati Research January, 2003

Adding new features is as easy as purchasing a license key or downloading a network-based software upgrade from Mirapoint. The process can be completed in minutes. Mirapoint systems are based on the purpose-built Messaging Operating System (MOS), designed for simple, turnkey deployment of messaging-based services. The system can be customized to meet the unique needs of deskless and non-traditional workers through class-of-service capabilities. For example, one set of users may require IMAP, Webmail and group calendaring, while another set of users may just require Webmail.

Based on Internet standards such as Internet Message Access Protocol (IMAP), Lightweight Directory Access Protocol (LDAP), and Extensible Markup Language (XML), the Mirapoint solution makes it easy for enterprises to add or integrate functionality. Rather than discreet software or hardware upgrades with uncertain consequences, Mirapoint provides updates delivered as a single system image that are quick and easy to install with guaranteed outcomes. There is no need to purchase additional hardware, install gateways, or individually upgrade the OS and different software components. Upgrading to new release versions is just as fast and painless.

Mirapoint's solutions also integrate with existing reporting systems, enabling administrators to access message traffic logs and reports through the system they already use. This further enables centralized management and eases ongoing administration.

Basic Email Functionality

Unlike knowledge workers that thrive on a full suite of collaboration tools, many deskless and non-traditional workers require just basic email functionality including calendaring, address book, and to-do lists, while other users may require more advanced features such as web or wireless access.

Mirapoint provides the complete email feature set including both personal and group calendaring capabilities, address books, to-do lists, shared folders, and advanced features including web and wireless access, spam and virus protection, and Outlook SynQ for users who require more native desktop client integration. Through class-of-service capabilities, administrators can individually meet the needs of the different groups within their enterprise.

Web and Wireless Access

By definition, deskless or non-traditional workers tend to be mobile. Their "desk" may be a delivery truck, a car, a forklift, or an assembly line. Access to corporate email and collaboration tools for deskless and non-traditional workers requires web and wireless access capabilities. Gartner states that, "The number of mobile and handheld devices in use continues to grow as they become fundamental to business success, particularly for organizations with large numbers of deskless employees."

Mirapoint offers a secure and cost-effective way to deliver web and wireless access through its Direct Access™ technology, which presents web and wireless client interfaces without gateways or protocol translation, dramatically reducing response time, system overhead, and administrative resources. Mirapoint provides

web and wireless access through recognized standards such as Wireless Application Protocol (WAP) and i-mode. The solution also integrates with mobile messaging applications such as Short Messaging Service (SMS) notification and Multimedia Messaging Service (MMS). Deskless and non-traditional workers can easily set up notifications for calendar events or for certain messages to be forwarded to their cell phone or pager.

Outlook Synchronization

Traveling employees, business partners, and customers in the deskless or non-traditional workforce may require more advanced features when they are at their desk. Many enterprise email users currently use Microsoft Outlook® for their desktop email client. Any solution that offers email access to this subset of deskless or non-traditional workers should enable those users to continue using the client they are already using. This would allow them to use the tools they are already familiar with and avoid retraining.

Mirapoint's Outlook SynQ tool provides synchronization of email, calendar and address book between the Outlook client and the Mirapoint back-end servers. Users can continue to use the same Outlook client they are familiar with, while benefiting from improved reliability and performance of Mirapoint systems.

Integrated Security Protection

Any enterprise deploying email to its deskless workforce wants to maintain the same level of protection against viruses and spam provided to its other traditional users. In addition, enterprises are under increasing pressure to comply with new regulations that effect message traffic and online communications.

Mirapoint has taken an integrated appliance approach to securing email systems, providing customers with a single-source solution for all of their email security needs. Mirapoint messaging solutions integrate industry-leading Sophos virus scanning technology to provide protection over incoming and outgoing message traffic. Mirapoint anti-virus can be rapidly updated to protect against new virus threats—and be deployed and managed through standard Mirapoint administration interfaces.

To conserve system and network resources, Mirapoint systems include comprehensive features for blocking spam. They include support for Real-time Blackhole Lists (RBLs), Simple Mail Transfer Protocol (SMTP)-based authentication, and system-level filters for blocking messages based on sender, originating domain, or IP address. Mirapoint also offers spam prevention through powerful heuristics-based spam recognition and tagging with automatic rule updates, as well as administrator-configurable white and black lists to define approved or blocked senders. Mirapoint is one of the only vendors to offer personalized features for spam management, including individual white and black lists and content filters, so that people can better manage their incoming email and define what is and is not spam.

Finally, Mirapoint systems give administrators the flexibility to define and enforce a broad range of corporate policies governing incoming and outgoing email traffic. These policy enforcement capabilities, implemented through Mirapoint filtering tools, help companies better manage employee email usage, prevent sensitive infor-

mation leaks, and meet regulatory compliance requirements, as well as protect against harassment and other types of email abuse.

Portal Integration

The most common way to provide access to email and other applications is through a portal. According to Ferris Research, “Deskless workers will go through portals, and e-mail will probably be an important part of services delivered to deskless workers through portals. Deskless workers would access mail at a company portal using a browser.”

To ensure ease of use for deskless workers, email access through these portals should be easily customized to match

Figure 3: Mirapoint Web Branding Examples



the corporate look and feel.

The Mirapoint solution is designed to be fully customizable and brandable to reflect the “look and feel” requirements of portals. Banners, background colors, fonts, graphics, logos, e-commerce links, and advertisements can be freely modified by the customer as needed. The solution can even integrate with the existing authentication model at the portal level to ensure security. For example, Mirapoint supports single sign-on for portal users, allowing them to login once to access all applications including email and calendar. The Mirapoint solution also simplifies localization and supports the transcoding of character sets, so multi-national enterprises can better meet the specific language needs of different regions.

Directory Services

Directory-based administration further simplifies management and drives down costs. For example, leveraging standards-based Lightweight Directory Access Protocol (LDAP) directories can be an essential tool for centralized system administration and management for both the knowledge and deskless workforce.

Mirapoint allows enterprises to either use the Mirapoint Directory Server or integrate with whatever solution they are currently using, such as Microsoft Active Directory, Novell eDirectory Services, or Sun’s iPlanet/SunOne Directory Server. Mirapoint Directory Server is a high-performance, LDAPv3 standards-based directory server that supports millions of entries. Easily integrated into any network, Mirapoint Directory Server is a robust platform for customers that need a common user and subscriber information database.

Mirapoint Solutions Overview

Message Server

Mirapoint’s dedicated email server brings together high-performance software, a secure hardened operating system, and redundant hardware components to deliver an optimized and complete email solution. The Message Server can be deployed within minutes to provide rapid email service-enablement for access from any client device, plus value-added applications such as group calendar, address book, and to-do lists. Security protection for virus, spam and hacker threats also available with the Message Server.

Message Director

Mirapoint’s Message Director secures message networks with powerful boundary control over incoming message traffic to defend against spam, virus, and hacker attacks. With world-class performance capable of processing millions of messages a day, the Message Director also provides protection over outgoing traffic for policy enforcement and message tracking. In addition, the standards-based Message Director works seamlessly to secure an existing email server such as Microsoft Exchange.

Directory Server

Mirapoint’s purpose-built LDAP-based directory appliance provides a single point for user and system management of message networks. Capable of supporting tens of millions of entries, the Directory Server simplifies management of large multi-tier or distributed messaging environments. The Directory Server also integrates with other applications to provide centralized management and a single point of authentication.

Conclusion

Mirapoint provides the complete email feature set including desktop email, personal and group calendaring capabilities, address book, to-do lists and shared folders, plus a cost-effective way to deliver web and wireless access.

Every aspect of the system is designed to work with and leverage existing IT investments. To enable users to continue using their same Outlook client, Mirapoint's Outlook SynQ provides synchronization of email, calendar, and address book capabilities between the Outlook client and the Mirapoint back-end servers. The Mirapoint solution is designed to be fully customizable and brandable to reflect the "look and feel" requirements of enterprise portals. Additionally, Mirapoint allows enterprises to either use the Mirapoint Directory Server, or integrate with whatever directory solution they are currently using.

Enterprises have much to gain from giving deskless and non-traditional workers access to email and collaboration tools. Mirapoint makes that easy and affordable. Mirapoint's system delivers unequaled scalability to handle potentially millions of emails per day with a solution that is purpose-built to provide optimum performance, reliability, and high availability, while delivering the lowest total cost of ownership for messaging services in the industry.



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