



Whitepaper

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Choosing an Email System for the Mid-Sized Business: A Comparison

A J.Gold Associates White Paper

“Selecting a full featured, cost effective and secure email solution to enable the smaller business, without compromising on performance or ability to grow with the organization.... Organizations implementing a messaging solution must assess their needs based on functionality and acquisition costs, but must view these criteria with the unique needs of the smaller organization in mind....Smaller organizations must evaluate both technical and cost aspects of any potential solution before making a choice, or risk implementing a non-optimized solution that limits functionality and increases costs.....”





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Introduction

Many organizations, particularly smaller ones (<250 users) struggle with implementing a cost effective and low maintenance email solution. Smaller organizations generally want an easy to install and “no IT needed” solution that can provides robust capabilities, is easy to maintain and involves minimal operational resources. Any optimized small business solution must have many of the attributes of enterprise-class systems, but at an affordable price and with minimal cost of operations, consistent with the smaller organizations’ lower operating expenses. Further, as companies grow, they require systems that are expandable and extensible, without being required to rip and replace an existing solution. And with a shift towards an increasingly diverse set of end user clients, including a variety of PC and mobile devices, companies need a solution that enables access from a variety of end user device types. Flexibly empowering users in a variety of business models must be a capability of any modern messaging solution. And implementing one at low cost and without a “glass ceiling” preventing expandability is essential.

This white paper will define a number of criteria to be evaluated in choosing the best messaging solution to meet the needs of the smaller organization. We will then evaluate three alternatives that could provide a suitable solution. The three smaller business messaging solutions this paper will evaluate include the most widely used enterprise-class email, Microsoft Exchange, both in the Standard Edition and Small Business Server offerings. We will explore how it compares in complexity and total cost of ownership to a targeted smaller business solution, Alt-N Technologies’ MDaemon® Messaging Server, BlackBerry® Edition.

This paper consists of two parts. Part one will define key evaluation criteria based on needed smaller business focused functionality and will then comparatively assess each product for its suitability. Part two compares the three email solutions based on a model that evaluates the three year total cost of ownership (TCO) of each. The paper will explore how organizations can minimize complexity and cost without sacrificing needed features, functionality and security.

Choosing the Right Email System for Mid-Sized Businesses: A Manager’s Perspective

Few small businesses have the luxury of a full time technical support staff. Further, although most are price sensitive, companies often look at maximizing investment by obtaining products that can easily grow with the organization without having to be ripped out and replaced. Companies also desire products that can be managed part time by internal staff with minimal training, so they can reduce overhead and eliminate the need for acquiring highly technical staffing. Finally, many smaller organizations require a comparable level of functionality, security and maintainability as the larger organizations do, but without requiring replication of their extensive IT environment. For these reasons, smaller organizations deploying in-house email capability should evaluate products based on suitability for their



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unique requirements. This includes enabling deployment and maintenance of the solution with a minimum of specialized staff requirements, in addition to a focus on the cost of acquisition. The combined evaluation of the above will result in a view to the true TCO of the product.

How to Use This Guide

We believe managers should concentrate on the unique smaller business requirements inherent in their operations when selecting a product. We therefore will offer guidance below on selecting a smaller-business focused messaging solution, concentrating on 9 key criteria and their impact on the smaller organization. For comparison purposes, we will use companies of 25 and 250 employees as we believe these represent meaningful target sizes for mid-sized organizations.

Below we will compare three messaging alternatives: Alt-N Technologies MDAemon, Microsoft Small Business Server and Microsoft Exchange Standard Edition. Since Small Business Server has an upper limit of 75 users, we will use Exchange Standard Edition for comparison in our organization of 250 users, and Small Business Server for comparison in our 25 user organization. Both will be compared against MDAemon which has no restrictions on the number of users but targets organizations with less than 1000 users.

Key Attributes of a Business-Class Email System

There are a number of important attributes that make an email system acceptable for business use. Below we identify nine key attributes which need to be evaluated by an organization considering the use of a messaging platform. We have comparatively scored these attributes for each of the three email systems being evaluated. In scoring the solutions, we placed particular emphasis on suitability for smaller businesses with limited IT resources and have weighted each attribute in our comparative analysis accordingly.

Below we list the key criteria, along with a brief discussion of its characteristics and a brief, bulleted listing of associated features included within each of the products.

Ease of Installation

Preferred products should have an easy to use web-based interface for initial set-up and for ease of adding and deleting users and managing features. Templates and/or wizards are helpful. This capability may mitigate the need for highly skilled IT staff to configure and operate the product.

- **MDaemon**
 - Web-based console, offering quick installation and start up.

- **Small Business Server**
 - Wizard based interface



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- Preconfigured installation, which can be purchased bundled with hardware through major vendors (e.g., HP, Dell)
- **Exchange Standard Edition**
 - Requires administrator trained in Exchange, Active Directory and network systems
 - Extensive set-up required in installation process

Admin/Maintenance

Maintenance and down time are key pain points with many organizations as they increase the cost of operations and harm operations. Admin and maintenance are necessary and should be easy to perform.

- **MDaemon**
 - Allows remote management, including end user self service through a web based user interface
 - Performance reporting tools and intuitive remote management capability
- **Small Business Server**
 - Template driven for “canned” functions
 - Higher level functions require “deep dive” into system
- **Exchange Standard Edition**
 - Requires use of Microsoft Systems Management tools for full capability

Modern Features

Flexibility and performance, including web-based access, connection to multiple email formats, local collaboration tools, access to diverse clients, front ending other systems, etc.

- **MDaemon**
 - Web-based admin tool
 - Connection to SMTP. POP and IMAP systems
 - Microsoft Outlook (via plug-in) or WorldClient web mail user access
 - Proprietary Instant Messaging included via CommAgent application, which also alerts for email
- **Small Business Server**
 - Connection primarily through Outlook, but web access available
 - Includes SharePoint for collaboration and sharing documents with system users
- **Exchange Standard Edition**
 - No wizards for set up and maintenance, requiring IT staff with knowledge of Exchange and Active Directory.
 - SharePoint not included in base system.



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Support for Multiple End Point Devices

Modern web-based interface alternatives means a number of different end user devices can be supported without the need for specialized and costly clients, and can accommodate user-owned devices safely as no data resides on the device. Expanding business device types include smartphones, netbooks and tablets.

➤ **MDaemon**

- Web-based client (WorldClient) allows many devices capable of opening a browser to access messages
- Single install wizard for email and BlackBerry Enterprise Server, allows full wireless interaction (synching, management, IT policy enforcement) with BlackBerry® devices
- Optional ActiveSync add-on for use with other mobile devices supporting it

➤ **Small Business Server**

- Primarily designed for use with Outlook on a desktop or Microsoft powered mobile device
- Can use ActiveSync for connection to other devices
- Allows use of Web Outlook client for more limited functionality

➤ **Exchange Standard Edition**

- Primarily designed for use with Outlook on a desktop or Microsoft powered mobile device
- Can use ActiveSync for connection to other devices
- Allows use of Web Outlook client for more limited functionality
- Allows full Exchange policy setting through full Exchange management console

Scalability/Expandability

Many smaller organizations will grow over time and should choose a solution that can grow with them. Companies may start with 10-25 users and expand to several hundred or even thousands. Products should be evaluated with a view towards expandability.

➤ **MDaemon**

- Can scale from a few users to thousands, although the sweet spot is 250-500 users or less. Users can easily be added by purchasing more licenses.

➤ **Small Business Server**

- Maximum capacity is 75 users, as Microsoft prevents more user licenses from being deployed. Expanding means upgrading to full version of Exchange, and likely includes a HW upgrade as well.

➤ **Exchange Standard Edition**

- Can scale to many thousands of users, but requires a large number of servers to do so (maximum of 500 users per server is recommended, with separate servers



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for Active Directory and SQL Server). Users can be added by purchasing more licenses.

Mobile Enablement

Nearly all companies both large and small need to support an increasingly mobile workforce equipped with smart phones and other devices. Products should be selected with this capability built in.

MDaemon and Microsoft Exchange both provide direct support for harnessing the benefits of mobility. Microsoft Exchange provides direct support for most smartphones via ActiveSync. Supporting BlackBerry smartphones with Exchange requires additional BlackBerry middleware. MDAemon supports most popular smartphones and BlackBerry devices directly because it includes both ActiveSync and embedded BlackBerry middleware.

➤ **MDaemon**

- Supports most mobile devices through IMAP, POP for email, and ActiveSync (Optional plug in) for PIM data
- Provides built-in features of BlackBerry Enterprise Server to enable full synchronization and limited IT policy support with BlackBerry devices in a common user interface
- Includes support for SyncML PIM connectivity to smart phones and other mobile devices

➤ **Small Business Server**

- Supports selected mobile devices through ActiveSync.
- Enhanced functionality for Windows Mobile powered devices, and more limited functionality with iPhone, Android and Symbian devices.

➤ **Exchange Standard Edition**

- Supports selected mobile devices through ActiveSync.
- Enhanced functionality for Windows Mobile powered devices, and more limited functionality with iPhone, Android and Symbian devices.
- Provides limited policy management for ActiveSync enabled devices, with full policy management for Windows Mobile devices.

Security

Larger platforms like Microsoft's Exchange are frequently targeted by hackers and attackers, while lower profile solutions like MDAemon are typically ignored. Adequate security capability and attack profile needs to be evaluated for businesses of all sizes.

➤ **MDaemon**

- Integrated anti-spam engine with multiple layers of security techniques used (e.g., DKIM, SPF, etc.)



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- Provides a web-based access method (WorldClient) to prevent on-device remote storage of sensitive data. Provides for secure link to server from client.
 - Can include optional security layer (SecurityPlus for MDAemon) for AV and protection to minimize Malware threats.
- **Small Business Server**
- Requires Outlook for full functionality, or web based access for more limited functionality. Most users will have data stored on the local device (via Outlook or ActiveSync enabled mobile client), exposing potential loss of data, and/or infection of device through downloaded messages.
 - Includes limited additional security (AV, Spam) with Microsoft Forefront, but for a limited timeframe.
- **Exchange Standard Edition**
- Requires Outlook for full functionality, or web based access for more limited functionality. Most users will have data stored on the local device (via Outlook or ActiveSync enabled mobile client), exposing potential loss of data, and/or infection of device through downloaded messages.
 - Requires additional security suite to protect the system and users from malware, spam, etc.

Hardware Flexibility

Organizations should evaluate the amount and level of hardware necessary to operate the chosen products. Higher end solutions like Exchange require premium hardware to operate, while more modest HW resource solutions like MDAemon can operate on older PC equipment which a company may have available without having to purchase a new server.

- **MDaemon**
- Runs on virtually any hardware (32 or 64 bit processor-based)system built within the past few years
- **Small Business Server**
- Requires relatively higher end, 64 bit processor based server
- **Exchange Standard Edition**
- Microsoft recommends segmenting the components necessary (e.g., Exchange, SQL Server, Active Directory) across multiple servers for reliability and scalability.
 - Requires higher end 64 bit server hardware to operate.

Cost Effectiveness

Many smaller organizations are exploring email hosting and cloud based services as an alternative to the relatively high cost of maintaining their own systems. Yet solutions geared towards smaller organizations may have an equivalent cost profile to external hosting, while providing more control and features.



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- **MDaemon**
 - Default settings makes installation simple but offers flexibility to customize for various environments
 - Web-base interface is easy to learn, but requires some level of technical competence. Minimizes cost of operations.
 - Low cost per seat and easily upgradeable to more seats

- **Small Business Server**
 - Uses simplified templates/wizards making it suitable for lower level admins and non—IT functionaries
 - Cannot be expanded beyond 75 seats, so may not grow with organizations, without an upgrade to Exchange Standard addition.

- **Exchange Standard Edition**
 - Exchange is relatively hard to manage and requires a high level of technical competence.
 - Per seat cost is relatively high when additional servers and peripheral products are factored in, as recommended by Microsoft.

Comparative Evaluation of Messaging Solutions

Figure 1 below presents our comparative analysis of the three messaging solutions. This is a subjective evaluation based on our assessment of the strengths and weaknesses of each. It is intended to provide a guide to which products are acceptable and which have shortcomings in the key areas identified above. It is understood that the products may change and evolve over time, but our assessment is based on the current version of the products at the time of this writing.



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Figure 1: Comparative Evaluation of SMB Messaging Solutions

	MDaemon	Small Business Server	Exchange Standard Edition
Ease of installation	↑↑	↑↑	↓
Admin/Maintenance	↑	↑	↓
Modern features	↑↑	↑↑	↑↑
Support for multiple devices	↑↑↑	↑↑	↑↑
Scalability/Expandability	↑↑↑	↓	↑↑↑
Mobile Enablement	↑↑	↑	↑
Security	↑↑	↑↑	↑↑
Hardware flexibility	↑↑	↓	↓
Cost effectiveness	↑↑↑	↑↑	↑

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Evaluating Total Cost of Ownership: Exchange vs. MDaemon

While the functionality criteria listed above are important in making the correct choice in a messaging solution, we believe it is important to also be aware of the TCO for the various choices before making a decision. To evaluate the TCO for both a 25 user and 250 user messaging implementation, we created a 3 year model that includes the following expense items:

- *Cost of Computer Server Hardware* – we assumed that although MDaemon would run on less technically advanced machines than Exchange would, (Exchange requires a 64bit processor and OS implementation), we nevertheless included an equivalent cost for both MDaemon and Exchange. The differential HW cost would be modest and most organizations would elect to purchase a quality server. We estimated a server cost of \$1500 for the 25 user implementation and \$3000 for the 250 seat implementation.
- *Hardware Maintenance Contract* – we assumed most companies would purchase a maintenance agreement on the server. We included a 15% cost in years 2 and 3 for the server hardware maintenance cost.
- *Cost of Server Operating System* – We included the list price cost of server OS and Client Access License (CAL) for the appropriate number of users for each solution. We



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selected Windows Server as the OS for all implementations even though MDAemon would run on a lesser OS. For a 25 seat implementation, we assumed that either companies would run MDAemon on Windows Server, or companies would purchase a combined Small Business Server, which included the OS as well as Exchange in one bundled price. For the 250 seat implementation, we assumed an independent cost for the OS and Exchange, as Microsoft does not offer an equivalently bundled price with this number of users. For both user sizes of MDAemon, we included the cost for the OS and the independent cost for the Daemon licenses. For the 25 user solution. Small Business server cost \$4129, while MDAemon and OS cost \$2260. For the 250 user solution, we assumed a 15% volume discount off list price for Microsoft products. Exchange and Windows Server cost \$28,786 and MDAemon and Windows Server cost \$11,459.

- *SW Maintenance Cost* - We assumed a SW maintenance cost of 25% in year 2 and 3 for Microsoft products, and 35% in year 2 and 3 for MDAemon.
- *Administrator* – Since all software requires some level of support, we included the cost for a system administrator for all implementations. We estimated a standardized Full Time Equivalent (FTE) ratio of 1 admin per 250 Exchange users, and FTE ratio of 1 admin per 400 users of MDAemon, based on our estimation of a heavier burden of admin management necessary with Exchange implementations. These are recurring costs for all 3 years of the model. The admin cost was \$12,000 per year for the 25 user implementation of Exchange and \$7,500 per year for the 25 user implementation of MDAemon. The 250 user implementations were \$120K for Exchange and \$75K for MDAemon. We assumed a fully burdened admin rate of \$120K per year.

Figure 2 – Per Year and Total Cost for a 25 User Implementation

25 User Implementation				
	Year 1	Year 2	Year 3	Total
Total Cost				
Small Bus Server	\$16,129	\$12,882	\$12,882	\$41,894
MDaemon	\$9,760	\$7,915	\$7,915	\$25,590
Total Cost Differential				\$16,304
Cost Per User				
Small Bus Server	\$645	\$515	\$515	\$1,676
MDaemon	\$390	\$317	\$317	\$1,024
Cost Differential Per User				\$652

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For this implementation, the calculated costs result in a 3 year TCO advantage to MDAemon of \$16,304, or \$652 per user.



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Figure 3 – Per Year and Total Cost for a 250 User Implementation

250 User Implementation				
	Year 1	Year 2	Year 3	Total
Total Cost				
Exchange Std	\$148,786	\$128,034	\$128,034	\$404,855
MDaemon	\$90,799	\$79,284	\$79,284	\$249,367
Total Cost Differential				\$155,488
Cost Per User				
Exchange Std	\$595	\$512	\$512	\$1,619
MDaemon	\$363	\$317	\$317	\$997
Cost Differential Per User				\$622

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For this implementation, the calculated costs result in a 3 year TCO advantage to MDaemon of \$155K, or \$622 per user.

**Additional details for each scenario are available in Appendix A.*

Conclusions

Organizations implementing a messaging solution must assess their needs based on functionality and acquisition costs, but must view these criteria with the unique needs of the smaller organization in mind. Lowest TCO is achieved by maintaining a low cost of operation, but also as a function of keeping the amount and level of IT resources required to run the solution as low as possible. Since most smaller organizations have minimal IT resources available, choosing the correct solution requires a detailed assessment of both the level and quantity of IT resources necessary, and finding the solution most suitable for the lower level of technical staff generally available within the organization. Since many smaller organizations will grow over time, it is imperative to plan for such expansion and select a solution that will allow for growth without requiring a costly and business-disrupting upgrade. Finally, companies should be aware of the changing usage models, particularly regarding end user devices, mobility, and increasing security threats when evaluating a messaging solution that best fits the business. Smaller organizations must evaluate both technical and cost aspects of any potential solution before making a choice, or risk implementing a non-optimized solution that limits functionality and increases costs.



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Appendix 1: TCO Models - Additional Data

Assumptions:

- Using a Windows Server Platform to deploy all implementations
- MDAemon Maintenance cost =35%/yr
- Burdened Admin rate is \$120K/yr
- Windows Server box is same for MDAemon and Exchange
- MDAemon uses 1/400 admin FTE, Exchange 1/250
- Server Maintenance cost =15%/yr
- MSFT SW maintenance cost =25%/yr
- MDAemon maintenance cost = 35%/yr
- MSFT volume discount = 15%
- Assume single server installation for both 25 and 250 users
- Server cost = \$3K for 250 users, \$1.5K for 25 users

Table 1: Cost of Deploying MDAemon – 250 Seats

Cost of Deploying MDAemon - 250 Seats		# Users	Year 1	Year 2	Year 3	
		250				
Server Cost	3000		\$3,000			
Server HW Maintenance (15%/yr)				\$450	\$450	
						\$3,900
MDaemon Server (250 Users)	1250		\$1,250			
MDaemon Maintenance (35%/yr)				\$438	\$438	
						\$2,125
Windows server SW Cost	3999 includes 25 CALs		\$3,999			
Windows server CAL	799 20 pack		\$9,588			
Windows Server SW maintenance (25%/yr)				\$3,397	\$3,397	
Subtotal			\$13,587	\$3,397	\$3,397	
Total Windows Server SW discount from cost (15%)			\$2,038			
Total Windows Cost			\$11,549			
Total Server HW and SW Cost			\$15,799	\$4,284	\$4,284	\$24,367
FTE to administer MDAemon/Windows Server (1 per 400 users, \$120K/yr)		0.625	75000	75000	75000	\$225,000
Total Cost			\$90,799	\$79,284	\$79,284	
Total 3 Year Cost						\$249,367
Cost per user			\$363.20	\$317.14	\$317.14	
Total 3 Year Cost per User						\$997.47

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Table 2: Cost of Deploying Exchange – 250 Seats

Cost of Deploying Exchange - 250 Seats		# Users 250	Year 1	Year 2	Year 3	
Server Cost	3000		\$3,000			
Server HW Maintenance (15%/yr)				\$450	\$450	
						\$3,900
Exchange Server SW cost Standard Edition	699					
Exchange CAL	67		\$16,750			
Exchange Server SW Maintenance (25%/yr)				\$4,188	\$4,188	
						\$25,125
Windows server SW Cost	3999 includes 25 CALs		\$3,999			
Windows server CAL	799 20 pack		\$9,588			
Windows Server SW maintenance (25%/yr)				\$3,397	\$3,397	
Subtotal			\$30,337	\$7,584	\$7,584	\$45,506
Total SW discount from cost (15%)			\$4,551			
Total Server HW and SW Cost			\$28,786	\$8,034	\$8,034	
FTE to administer Exchange/Windows Server (1 per 250 users, \$120K/yr)	1		\$120,000	\$120,000	\$120,000	\$360,000
Total Cost			\$148,786	\$128,034	\$128,034	
Total 3 Year Cost						\$404,855
Cost per user			\$595	\$512	\$512	
Total 3 Year Cost per User						\$1,619
3 Year Total Cost Difference (Exchange vs. MDAemon)		\$155,488			\$622 Per User	

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Table 3: Small Business Server vs. MDAemon – 25 Seats

MSFT Small Business Server for 25 Users	Year 1	Year 2	Year 3		MDAemon for 25 Users	Year 1	Year 2	Year 3	
HW	\$1,500				HW	\$1,500			
HW Maintenance (15%)		\$225	\$225				\$225	\$225	
SW License SBS Std Edition with 5 CALs	\$1,089				SW cost (50 user)	\$760			
CAL 20 pack	\$1,540								
SW Maintenance (25%)		\$657	\$657		SW Maintenance (35%)		\$190	\$190	
Subtotal	\$4,129	\$882	\$882	\$5,894		\$2,260	\$415	\$415	\$3,090
FTE Admin (1FTE/250users) x \$120K	\$12,000	\$12,000	\$12,000	\$36,000	FTE (1FTE/400users) x \$120K	\$7,500	\$7,500	\$7,500	\$22,500
3 Year Total	\$16,129	\$12,882	\$12,882	\$41,894	3 Year Total	\$9,760	\$7,915	\$7,915	\$25,590
3 Year Total Cost per User	\$645	\$515	\$515	\$1,676	3 Year Total Cost per User	\$390	\$317	\$317	\$1,024
3 Year Total Cost Difference				\$16,304					\$652 Per User

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