White Paper

Enhancing Microsoft Exchange 5.5 and Exchange 2000 Management and Monitoring

This document provides details of bv-Control™ for Microsoft® Exchange and its architecture and deployment aspects. This document is intended for use by Exchange Administrators, System/Network Administrators, Security Managers, Messaging Operations personnel, and Consultants.

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Introduction

This white paper will address how bv-Control™ for Microsoft® Exchange can help organizations manage escalating costs associated with burgeoning messaging systems. Recent studies by The Radacati Group, Inc. have revealed that cost of ownership of messaging systems is normally concentrated in three main areas: configuration costs, administration costs, and downtime costs.

Since so much business is now being conducted through the Internet and e-mail, it is essential that organizations do everything possible to ensure that messaging systems are constantly operational and performing well. When the system goes down, money is lost. These applications, such as Exchange, need to be available and secure, often on a 24-hour, seven-day schedule.

Microsoft® Exchange has shown itself to be one of the leading products in the messaging system arena. However, even with this very capable product, IT administrators have run into problems that result from the growing importance of messaging administration short-handedness. Three main areas normally create challenges in managing Microsoft Exchange environments: Assessment, such as content scanning to locate instances of a virus or instances of sensitive information within servers/mailboxes and take action on those instances; Auditing, such as determining which user mailboxes are following company policy for the storage limit defaults; and Advanced Administration, such as drag-and-drop mailbox moves (across organizations, sites, and containers).

This white paper details the design, architecture, and key features of BindView's bv-Control for Microsoft Exchange product. It also addresses how using bv-Control for Microsoft Exchange can more efficiently manage the assessment, advanced administration, and availability costs as they relate to the configuration, administration, and reliability of an Exchange environment. Additionally, this paper provides a brief synopsis of some of the day-to-day challenges facing Microsoft administrators and how bv-Control for Microsoft Exchange can help increase the value of your Exchange investment.

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BINDVIEW

Key Challenges of Managing Microsoft Exchange and the BindView Solution

bv-Control for Microsoft Exchange tracks the health and performance of Microsoft Exchange and can alert administrators before users experience downtime or degrading response times. bv-Control for Microsoft Exchange helps organizations reduce three key components of the Microsoft Exchange total cost of ownership:

- Configuration costs
- Administration costs
- Downtime costs

For example, bv-Control for Microsoft Exchange addresses common administrative issues such as identifying the versions of Exchange installed, moving mailboxes between sites, securing public folders and alerting on key services, event logs and performance counters–all managed from a single console. bv-Control for Microsoft Exchange allows administrators to:

- Analyze and manage Exchange configurations
- Perform routine analyses to identify possible security breaches
- Perform trending analyses using Exchange Server traffic statistics
- Analyze disk space utilization

bv-Control for Microsoft Exchange provides answers to the pressing Exchange management issues summarized in the chart below.

Exchange Challenge	Where BindView can help
Identify potential security breaches	✓
Immediately correct server and mailbox attributes from within query results	✓
Increase availability and performance	✓
Document Exchange environments for configuration consistency	✓
Plan for rapid increases in e-mail volume	✓
Track corporate e-mail policy violations	✓
Reduce cost of ownership	✓
Locate the source of Exchange server failures	✓
Documentation for use during emergency system reconfiguration	✓
Prepare for migration to Exchange 2000 while managing a heterogeneous Exchange environment	✓

Assessment

Configuration and Documentation

When running Microsoft Exchange, administrators need specific details about their clients' environment, such as which version, release, service pack, and hot fixes they are running on each server when seeking technical support. Typically, finding this information is a tedious and lengthy process. In mid- and large-size environments, system requirements change at such a fast pace that priorities are often focused exclusively on deployment and support of Exchange itself.

In an effort to conserve disk space, many organizations have started to place limitations on mailbox sizes. Despite these conservation efforts, servers can still be dramatically slowed to the point of impacting business and commerce within the organization. Or they can still become

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overloaded and crash, bringing down the system and halting any electronic communication. Even if standards are implemented, it is very difficult to enforce them regularly without a tool like bv-Control for Microsoft Exchange.

A common configuration challenge is the lack of an easy way, through native tools, to document the rapidly changing Exchange environment. This can cause a significant problem when an unscheduled outage or disaster requires that the Exchange environment must be re-created. bv-Control for Microsoft Exchange provides administrators with easy access to information, such as how the servers, mailboxes, and public folders were originally configured, and which permissions, storage limits, and delegation rights need to be assigned.

How BindView Can Help with Configuration and Documentation

Often, the rapid growth in Microsoft Exchange results in configuration inconsistencies. Because of this rapid growth, administrators have little to no time to go back and document the existing configurations on the system. Thus, it is very difficult to enforce company standards. With bv-Control for Microsoft Exchange, documentation is quick and easy. Complete configuration documentation of the Microsoft Exchange server assists in establishing standards. Exchange configuration analysis and reporting allows for the more efficient enforcement of company standards and policies.

Documentation is one of the least enjoyed (and most often ignored) tasks of an Exchange administrator. However, the mission-critical nature of the Exchange environment requires that in the event of an outage or disaster, the Exchange environment can be quickly re-created. BindView's comprehensive reporting capabilities enable Exchange administrators to keep documentation updated with minimal effort.

Many times, during routine maintenance, Exchange servers need to be taken offline and users of a particular server/site need to be informed. Currently, Microsoft Exchange has no mechanism to send e-mail or notifications to members of a particular server/site. Creating a distribution list with members of a server/site is a time-consuming manual process that becomes quickly outdated because these lists have to be continuously updated.

With bv-Control for Microsoft Exchange, you can create distribution lists with the members of a server or site within seconds with BindView's drag-and-drop functionality. This allows administrators to quickly and easily notify only the affected users when servers must be taken offline.

Security

Numerous studies have discovered that a large number of internal security violations result from internal security breaches caused by disgruntled employees, employees with too much time and curiosity, or occasionally, even by accident. While security violations occur for a variety of reasons, they often result from a "quick fix" to get Microsoft Exchange up and running again, or from a user who inadvertently gives someone authority to send e-mail on his or her behalf. Violations also include users who send and receive e-mails with inappropriate text or graphics, which could make the company liable in a lawsuit. Also, administrators need to be concerned about viruses that, if opened, could damage the integrity of the network or the user's hard drive. Security violations in Exchange can be widespread—and hard to control.

The bottom line is that these security violations cause organizations a lot of time and money. As seen with the "I Love You" virus, viruses can sweep across the world in a matter of hours, hamstringing businesses and causing billions of dollars in damage and downtime. Exchange administrators need to be constantly vigilant in order to prevent such outbreaks, but a lack of personnel and technologically advanced resources often contribute to viruses infecting a system before the administrators are even alerted. With easy reporting and ActiveAdmin® capabilities on the Exchange Security environment by a tool such as bv-Control for Microsoft Exchange,

administrators are able to monitor <u>and correct</u> security and other violations before they cost the organization time and/or money.

How BindView Can Help with Security

bv-Control for Microsoft Exchange provides the ability to search mailboxes and public folders for content that contains language or attachments that may be in violation of corporate policies. It also enables Exchange administrators to quickly locate attachments or executables that may contain viruses. Policing unauthorized access to public folders and checking for inappropriate mailbox delegations are two additional functions that bv-Control for Microsoft Exchange provides.

bv-Control for Microsoft Exchange can also help secure public folders by maintaining the correct permissions. This tool can also very quickly and easily eliminate unauthorized mailbox delegation permissions.

Advanced Administration

Microsoft Exchange administration is a never-ending task. Moving mailboxes from organization-to-organization, site-to-site, server-to-server, or container-to-container, taking the server down for maintenance, and notifying impacted users of its unavailability, and determining disk space usage are only a few of the many administrative tasks performed on a frequent basis. These manual tasks are both time-consuming and prone to error. In most instances, Exchange administrators could be more effective by devoting themselves to critical applications rather than these repetitive administrative tasks. bv-Control for Microsoft Exchange provides easy "Find-and-Fix" capabilities to minimize time spent on advanced administrative tasks.

How BindView Can Help with Advanced Administration

Exchange administration is a thankless task. There is currently a high IT employee turnover rate that, in many cases, results from administrators not being challenged in their positions due to the constant fire-fighting in the messaging world that oftentimes becomes the norm. Even though there are some stand-alone utilities available with Exchange's native tools, they only handle limited administration capabilities. bv-Control for Microsoft Exchange significantly simplifies administration by offering numerous capabilities, all from one console. With simple "drag-and-drop" capabilities, bv-Control for Microsoft Exchange allows administrators to move mailboxes across sites and to copy information from a public folder to a mailbox, in addition to creating or deleting mailbox and public folder properties, owners, and permissions.

Availability

Keeping Microsoft Exchange systems up and running is a critical issue for user satisfaction. It is also the most important criteria in meeting service level agreements. The cost of downtime to an organization can be felt through lost user productivity, lost revenue, and the time spent to resolve the problem. Similarly, Exchange servers with performance problems frustrate users and often result in uncompleted business processes, such as order verification and fulfillment. Finally, problem resolution is delayed and the situation worsens when the problem is discovered *after* users are impacted.

Additionally, there are only limited alert capabilities for potential system problems available with Exchange's native tool. Therefore, in order to ensure system availability, a comprehensive tool such as bv-Control for Microsoft Exchange is vital to the organization.

How BindView Can Help with Availability

bv-Control for Microsoft Exchange offers 24x7 monitoring of the Exchange environment at both the operating system and application layer. Metrics are gathered from a variety of sources including Exchange services, event logs, and performance counters. In addition, alerts can be generated when unauthorized client logon times are violated and when delivery time thresholds between servers have been exceeded. The metrics are then analyzed and when thresholds are

met, alerts are generated. Thresholds can be set so that administrators are alerted well before users experience downtime or performance degradation.

The BindView Approach

Microsoft Exchange has spurred the creation of several administrator tools offering system reporting and real-time performance monitoring and management. While these solutions may ensure that Exchange is up and running at acceptable levels, many of them are not a complete solution that make Exchange a more secure and viable platform.

The BindView family of products provides a comprehensive solution for managing your Exchange 5.5 and 2000 environments with our bv-Admin™ for Microsoft® Exchange and bv-Control for Microsoft Exchange. These products provide enterprise-wide reporting, advanced administration, and monitoring and notification that will save IT Administrators time and effort. This reduces the overall cost of ownership of the Exchange investment, while maximizing system reliability and staff productivity.

BindView's bv-Control for Microsoft Exchange product offers a solution to your security, configuration, and availability needs: advanced policy management and modifications, *plus* real-time monitoring, *plus* query-based reporting—all from one management console, a snap-in to the Microsoft Management Console, or MMC.
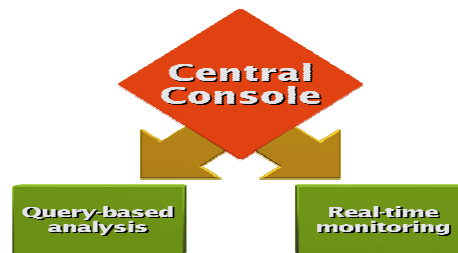

Central Console

The BindView RMS™ Console installs as a Snap-In to the Microsoft Management Console (MMC). The MMC is a host application that provides a common user interface enabling easy navigation of the BindView RMS Console application. The BindView RMS Console, along with bv-Control for Microsoft Exchange, is a powerful tool designed to help you manage your Microsoft Exchange environment by providing the ability to run queries, perform ActiveAdmin (Active Administration), baselining, task listings, charting, reporting, and exporting features.

bv-Control for Microsoft Exchange uses the BindView RMS Console, which installs as a Snap-in to the Microsoft Management Console (MMC). The MMC is a host application that provides a common user interface enabling the navigation of the RMS Console. Based on Microsoft technology such as VB script and using standard Microsoft API calls, bv-Control for Microsoft Exchange installs and deploys easily out-of-the-box. It is quickly configured, and training time is minimal.

bv-Control for Microsoft Exchange scales easily when reporting on the Active Directory™ Schema, and is capable of monitoring Microsoft Exchange 5.5 and 2000 environments with numerous servers and thousands of mailboxes in several organizations in mixed-mode. Native Exchange 2000 support is scheduled for later in 2001. The product design **does not require agents to be loaded on each node**, thereby helping to decrease administrative overhead by deploying over network connections. The BindView design accomplishes its comprehensive view of the Exchange environment by reporting on both DAPI and ADSI datasources and fields. The move mailbox functionality across sites and containers, along with coming functionality to move mailboxes between Exchange 5.5 and 2000 servers and across Exchange 5.5 organizations allows BindView to provide both daily advanced administration and solutions for migration

preparations. All of this functionality is accomplished using an API that is familiar to the user and fully compatible in most network environments.

With over 100 prepackaged reports and over 800 reportable fields, bv-Control for Microsoft Exchange reduces the time it takes to find and correct initial problems. New reports can also be added with a simple interface and without having to write scripts or code.
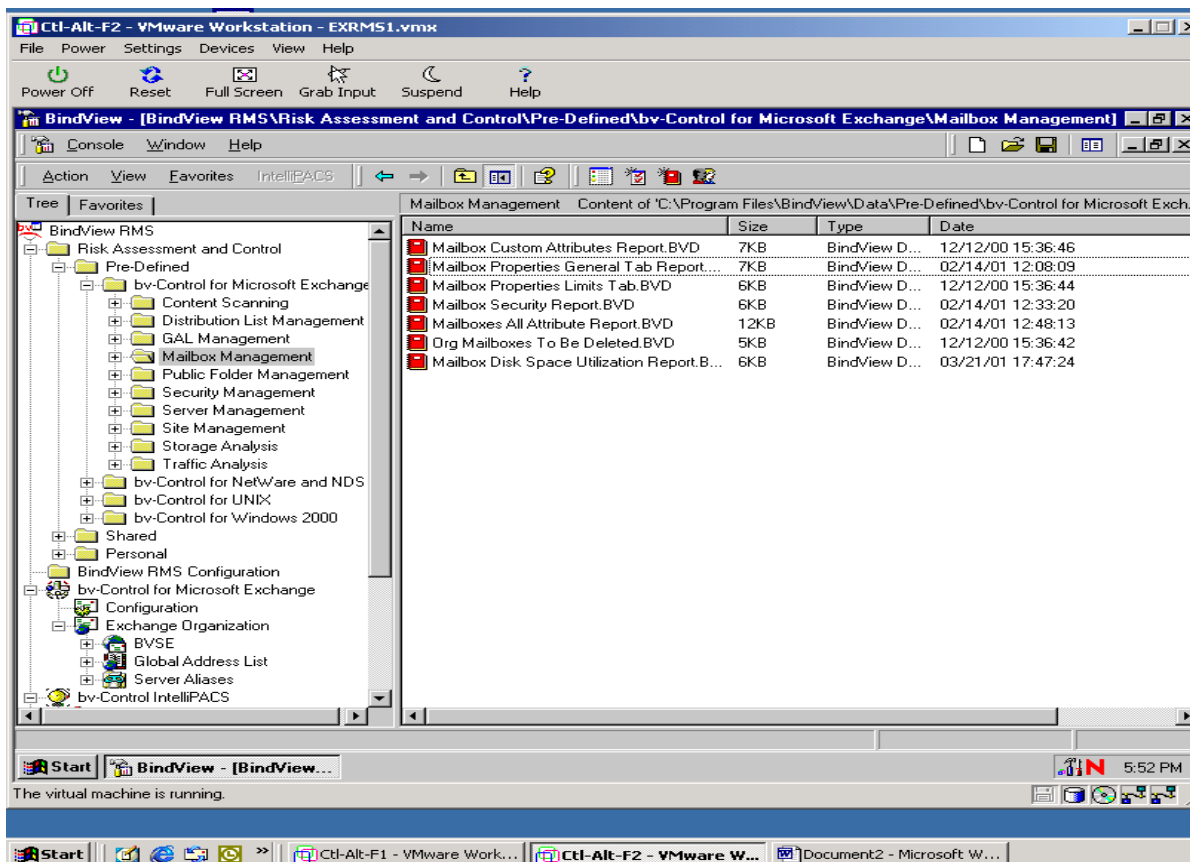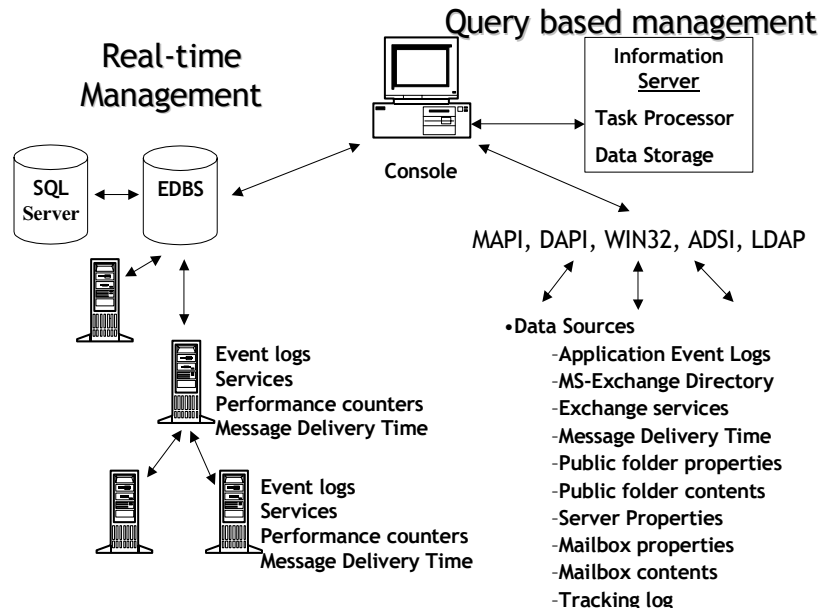

Figure 1: bv-Control™ for Microsoft® Exchange snaps in to the MMC for easy viewing of multiple Exchange servers across sites

Leveraging the Microsoft Architecture

There are two components that snap in to the BindView RMS Console. The first component, bv-Control for Microsoft Exchange, provides query-based management using Microsoft-supplied APIs to obtain the Exchange information for each data source. The second component, IntelliPACS™, provides real-time management capabilities to monitor and alert on critical events from Exchange event logs, services, message delivery times, and performance counters. Each component may be installed remotely **and does not require software to be loaded on Exchange servers**. These two snap-in components leverage the BindView RMS Infrastructure and automatically enable the following features:

- Enterprise scalable query configuration

- Graphs, charts and grid style reports

- Exporting to 16 different formats

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Figure 2: bv-Control for Microsoft Exchange architecture

The BindView RMS Console uses a query-based data retrieval mechanism to gather information from your Exchange environment. bv-Control for Microsoft Exchange installs into and extends the capabilities of the RMS Console. When a query is launched, the RMS Console issues a request through bv-Control for Microsoft Exchange to gather server information. Once the data is collected, it is returned to the RMS Console and displayed as a grid, chart, or report, based on report choice.
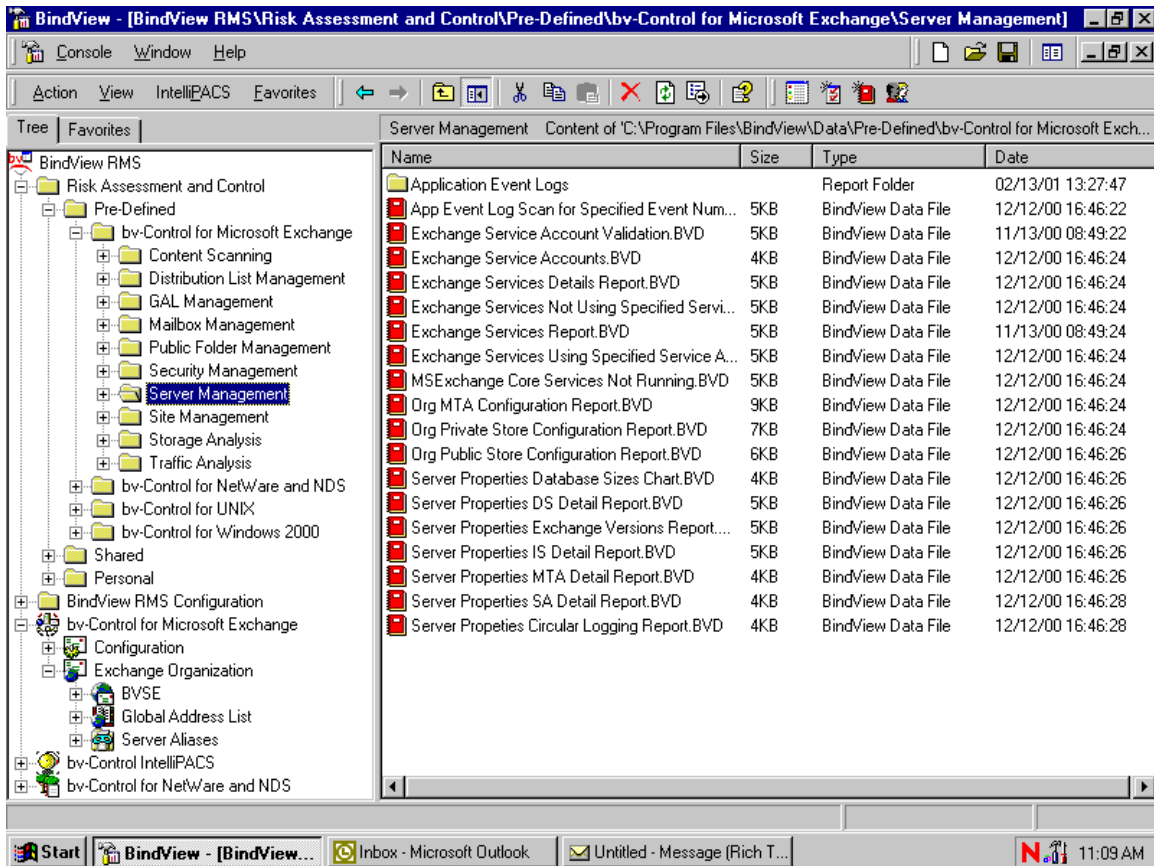
bv-Control for Microsoft Exchange components consist of executable modules and resources that interface with the RMS Console and the Information Server. The Information Server executes queries and reports. This component provides the data needed for reporting, and contains the data retrieval mechanism for the queries. The Information Server component exposes the user schema to the RMS Console. The user schema contains the data sources and fields that the user may select for creating reports. Additionally, it provides user interface components, such as dialog pages that are specific to the data sources and fields.

Key Features of bv-Control for Microsoft Exchange and IntelliPACS

Assessment
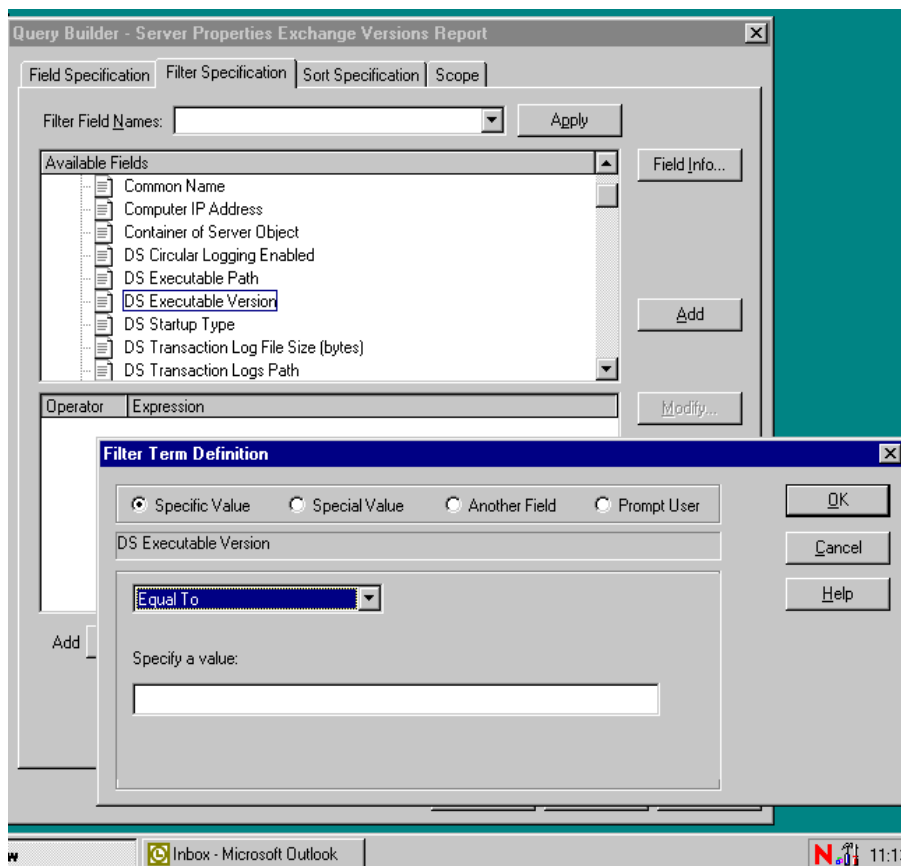
Query-Based Reporting

To help Exchange and system administrators obtain a fast and accurate view of their Exchange environment, bv-Control for Microsoft Exchange comes with more than 70 Ready-to-Go reports. The reports are segmented into Query Builders that identify key issues such as private store and public store utilization and usage, security, and message tracking. These are accessed with a simple point-and-click interface.

Figure 3: bv-Control for Microsoft Exchange provides over 100 Ready-to-Go repots covering all aspects of Exchange server management.

Ready-to-Go reports are important for speed and efficiency, but they are not an administrator's only option. Reports can be modified and new reports created without writing a single line of code using the 800 reportable fields. This is done via a *drag-and-drop* capability for adding new fields to reports. Results can be saved for trend analysis and capacity planning at a later time. Report information can be graphed, compared to an established baseline, and exported into a variety of data formats such as Microsoft Excel or Microsoft Word.

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Figure 4: bv-Control for Microsoft Exchange reports can be modified and new reports created using drag-and-drop functionality.

ActiveAdmin from Query-based Reporting

The ActiveAdmin functionality in bv-Control for Microsoft Exchange is an exclusive timesaving feature that allows complete "Find-and-Fix" functionality on mailbox and server properties from query-based reports. This functionality extends the query-based reporting capabilities beyond analysis to include immediate resolution to reduce security threats and enforce configuration policies. For example, Exchange administrators are now able to locate all instances of messages containing inappropriate content or virus information and move, review, and/or delete them from Exchange mailboxes and public folders. Another example is the administrator's ability to set storage limits for mailboxes from within the bv-Control query report.

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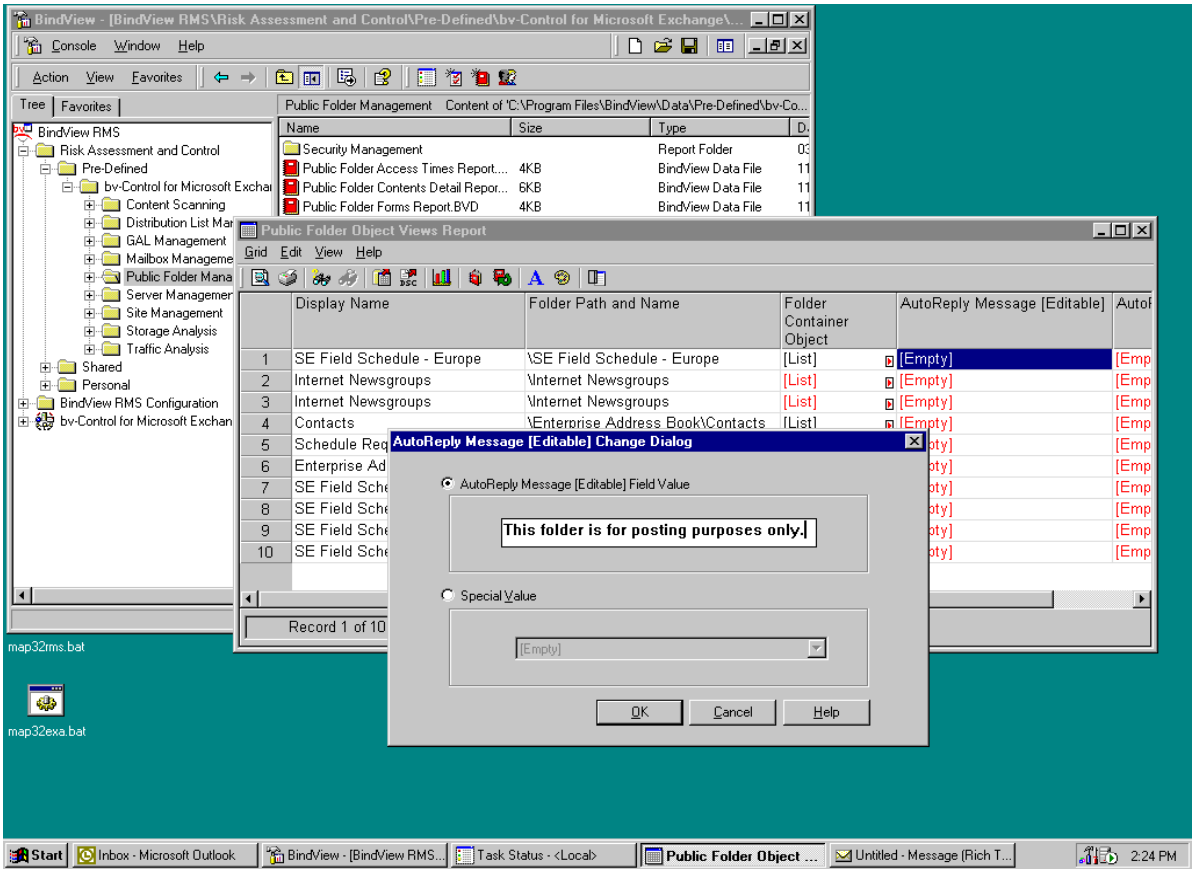
Figure 5: bv-Control for Microsoft Exchange has ActiveAdmin to allow Find-and-Fix functionality from within query results. This demonstration shows how easily an administrator can find and edit an Auto Reply message for a Public Folder.

The following is a list of some of the ActiveAdmin fields:

Mailbox Properties Datasource — ActiveAdmin Fields

Hide from address book	Message Size Limit: Incoming
Message Size Limit: Outgoing	Storage Limit: Use IS Defaults
Storage Limit: Issue Warning	Storage Limit: Prohibit Send
Storage Limit: Prohibit Send and Receive	Address
Administrative Note	Assistant Name
Assistant Phone Number	Business Phone Number
Business Phone Number 2	City
Company	Country
Custom Attribute 1 through 15	Department
Fax Number	Home Phone Number
Home Phone Number 2	Last Name
Middle Initials	Mobile Phone Number
Notes	Office
Pager Number	State or Province Name

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Title	Zip Code
Employee Number	Employee Type
Forwarding Address	Home Address
Home Fax Number	Mail Drop
Personal Mobile Phone Number	Personal Pager Number
Personal Title	Home Page Address

Public Folder Properties Datasource—ActiveAdmin Fields

Administrative Note	Custom Attribute 1 through 15
Newsgroup	Notes
Company	Country
State	Title
Usenet Site Name	Home Page Address
AutoReply Subject	AutoReply Message
AutoReply	

Advanced Administration

Copy/Move/Delete Messages from Mailboxes

After a query is run against the Mailbox Contents Datasource, the administrator can select one or more of the messages from the results grid and either move or copy them to a mailbox folder. If the administrator chooses Move, the original mail message is deleted. If the administrator chooses Copy, the original mail message is undisturbed. Messages will only be moved or copied to another mailbox folder.

After a query is run against the Mailbox Contents Datasource, the administrator can select one or more of the messages from the grid and delete them. This is a true delete, and not a move to the deleted items folder. Once deleted, there is no way to get these messages back with bv-Control.

Copy/Move/Delete Messages from Public Folders

After a query is run against the Public Folder Contents Datasource, the administrator can select one or more of the messages from the results grid and either move or copy them to a mailbox folder. If the administrator chooses Move, the original mail message is deleted. If the administrator chooses Copy, the original mail message is undisturbed.

After a query has been run against the Public Folder Contents Datasource, the administrator can select one or more of the messages from the grid and delete them. This is a true delete, and not a move to the deleted items folder. Once deleted, there is no way to get these messages back with bv-Control.

Availability

Real-Time Monitoring and Reporting

An important feature of BindView's solution is the IntelliPACS component that provides its real-time monitoring and reporting capabilities to help ensure system reliability. IntelliPACS monitors the availability and performance of the Exchange server and generates alerts so that appropriate action can take place before service levels are compromised.

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The architecture of the bv-Control for Exchange real-time monitoring capabilities is designed to scale to very large numbers of monitored devices. The monitoring is achieved through the use of distributed collectors, which are assigned to machines that collect the management information. The monitoring collectors will be able to run locally or remotely, depending on the user's preference. The scripts direct the data collectors, and are available packaged, and included out-of-the-box. The customer also has the ability to develop scripts defining which metrics to gather, the frequency of collection, the threshold when an alert will be sent, and the severity of the alerted event.

Once an alert has been sent to the appropriate administrator, historical collection will begin to occur. If any data is lost, the administrator can use the historical reports to reconfigure the Exchange server.

Although administrators rely heavily on the functionality to be alerted when a metric has passed a critical threshold; it is also important to have the ability to view the events over time that led to a problem in the first place. The bv-Control for Microsoft Exchange real-time monitoring reports can allow administrators to study past trends in order to avoid future complications, as well as allow administrators to determine the source of a potential problem long before it can affect users. This capacity planning is also important in determining the impact of adding more system components (e.g., servers and applications) into the networked environment.
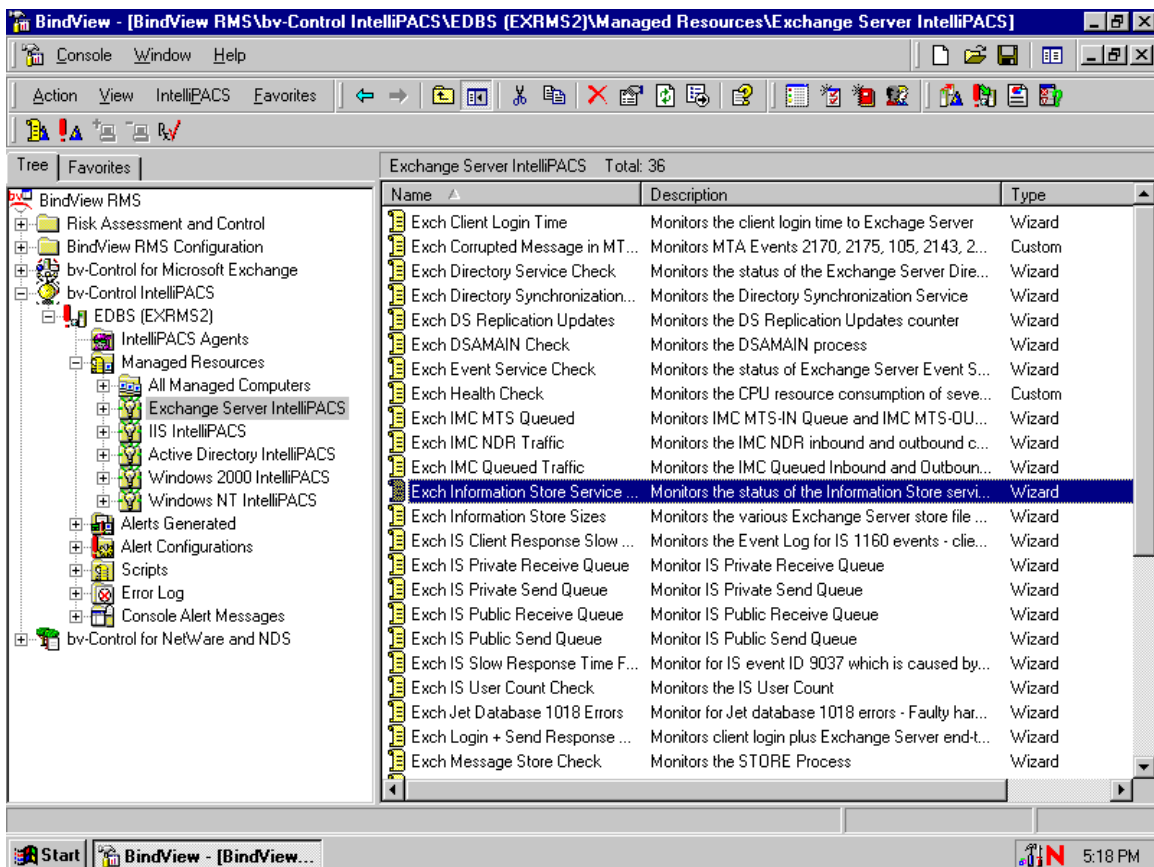
Figure 6: IntelliPACS™ provides real-time monitoring and notification with both out-of-the-box and customizable scripts.

Summary

There are multiple Exchange solutions on the market today; however, BindView's offering is unique and comprehensive. No other Exchange management product has BindView's non-intrusive architecture that seamlessly integrates itself into the Microsoft Management Console. The bv-Control for Exchange query-based analysis and "Find-and-Fix" functionality, coupled with its real-time monitoring capabilities will reduce the amount of time administrators spend on repetitive administrative tasks, as well as preparing them to head-off any developing problems that might be on the horizon. BindView's solution will provide cost savings to organizations in assessment and configuration costs, administrative costs, and availability costs. In fact, most of BindView's customers save on average enough money in the first four to six months after the implementation of the software to begin experiencing a return on investment.

Below are just a few of the features that bv-Control for Microsoft Exchange provides for System Assessment, Analysis, Documentation, and Advanced Administration.

Assessment
- Report on and configure server and mailbox properties
- Locate users with delegation rights
- Report on Public Folder ownership
- Locate tombstone mailboxes across your organizations
- Compare system configuration across your enterprise from one report
- Document and print detailed user account information (rights, distribution list memberships, etc.)
- Document entire organizational structure (Containers, Groups, Users, Aliases, etc.)
- Document overall configuration of servers (server versions, Service Packs, system configuration settings)

Advanced Administration
- Analyze Exchange Service Account Validation Credentials across your organizations
- Find inappropriate files such as JPG and MP3 in users' mailboxes
- Find users that are not using standard information store limits across your organizations

Availability
- Analyze the total disk space in use and available on servers
- List total disk space used by each user
- Analyze storage limits on mailboxes and public folders
- Analyze server traffic to prepare for future growth

For more information visit our Web site at www.bindview.com or call 800-749-8439.

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