HP OPENVIEW VANTAGEPOINT FOR WINDOWS®

SMART Plug-In for
Microsoft® Exchange Server

Installation and Configuration Guide

SMART Plug-In for Exchange
Version A.05.00

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Hewlett-Packard Company
OpenView Business Unit
8000 Foothills Boulevard
Roseville, CA 95747   USA

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Conventions

Boldface	Words in **boldface** type represent programs, commands, and user selections.
Capitalization	Capitalized first letters represent company or product names.
`Computer font`	Words in `computer font` represent file or path names, command syntax statements, prompts or messages that appear on your screen, or text you should type on your workstation or terminal.
Italics	Words in *italics* represent variables in syntax statements or words that are emphasized in the text.
{ }	Represents required elements in a syntax statement. When several elements are separated by the | symbol, you must select one of the elements.
[ ]	Represents optional elements in a syntax statement.

Printing History

New editions are complete revisions of the manual. The printing dates for each edition are listed below.

Edition 1	September 2000
Edition 2	November 2000
Edition 3	May 2001

Contents

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Introducing the SMART Plug-In for Exchange

This chapter introduces you to some basic Exchange SPI concepts and offers an overview of SPI components that, once installed, appear in the VantagePoint for Windows (VP/Windows) console. The chapter includes the following sections.

❑ What the Exchange SPI Does
❑ How the Exchange SPI Works with VantagePoint for Windows
❑ Using the Exchange SPI with VantagePoint Reporter
❑ Suggested Daily Tasks

What the Exchange SPI Does

The SMART Plug-In (SPI) for Microsoft® Exchange Server adds Exchange server-monitoring capabilities to VantagePoint for Windows. With the Exchange SPI configured and deployed to Exchange Server systems you will find that you can:

■ Increase Exchange availability and performance

■ Lower your support costs associated with the Exchange service

■ Improve capacity management and planning for Exchange

After you complete your Exchange SPI setup, within the VantagePoint for Windows console, you receive information on the performance and availability of monitored Exchange servers. The information that you receive to comes to you in the form of a *service map*, *messages*, *alerts,* and *graphs* so that you know when Exchange servers are performing well and, conversely, when they are not. With this information you can pinpoint and respond to potential problems.

NOTE   In addition, if you use VantagePoint Reporter, reports are also available that show additional Exchange-related data that accumulates over time. The information contained in these reports will help you manage capacity on Exchange servers, plan for future load balancing when you see trends of overloading on any one server developing, and spot performance bottlenecks between servers.

How the Exchange SPI Works

Like other SMART Plug-Ins, the Exchange SPI collects data that is targeted and gathered according to rules and schedule specifications contained within the Exchange SPI *policies*. The collection of this data also relies on the programs contained within the Exchange SPI *package*.

In the beginning, you will find that you can use Exchange SPI tools to discover the Exchange SPI environment, including servers and the services running on those servers. This information can help you in setting up the Exchange SPI to monitor those Exchange server(s) (as managed *node(s)* within the VantagePoint tree). One you have added Exchange SPI servers to the VP/Windows managed enviornment, you can then focus mainly on distributing Deployment packages and Policy Groups..

New folders for Tools, Policy management, and Deployment packages contain Exchange SPI components after you install the Exchange SPI.
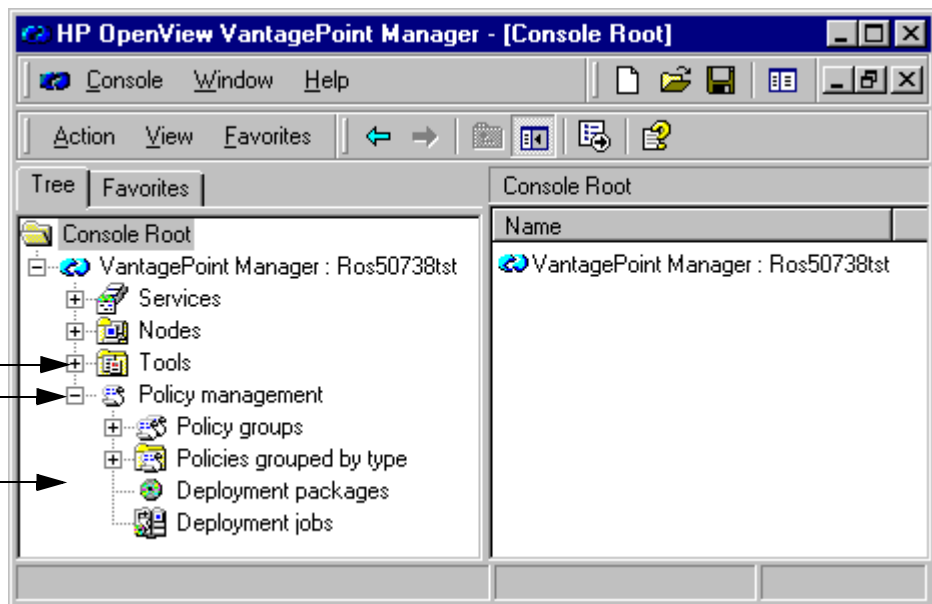
Set up of Exchange servers and the service map: The Exchange SPI comes with two tools that assist you in immediately showing you the organization of your Exchange environment and, most importantly, what Exchange servers you

have to monitor. By using the EXSPI Discover Topology and EXSPI Discover Services tools, you have enough information to begin setting up your Exchange server monitoring.

The policy setup and deployment: Basic Exchange SPI components do not require custom configuration. The *EXSPI Quick Start* policy group contains the policies you need to deploy with no special customization. *EXSPI Add-Ons* policies also require no customization and are available to select and deploy according to the applications/programs being used by the Exchange server. The *EXSPI Advanced* policy group is also available and ready for use after you complete some additional setup. Once deployed to the Exchange server node(s), the policy enables Exchange SPI programs to target specific data and measure the data against predefined rules to generate useful information.

When the resulting messages and alerts appear in the VantagePoint message browser, you can use the information for resolving and analyzing problems. In the message browser you can also double-click messages to view message details where suggestions appear for corrective actions associated with the generated data.

Policy display: Exchange SPI policies are available in the VP/Windows console two different ways: the first is according to group under the *Policy groups* folder, and the second is according to type under the *Policies grouped by type* folder. You can view or edit an Exchange SPI policy within either of these categories.

- *Policy groups*: organizes policies according to how you might want to deploy them. Quick Start contains the basic policies you need to get started; Advanced contains policies that require some configuring such as setting up a mailbox or pinging Exchange servers; and Add-Ons contains policies that cover applications compatible with but not part of Exchange, such as cc:Mail.

- *Policies grouped by type*: organizes policies according to their function; for example, you can find data collection scheduling in *Scheduled Command policies;* threshold settings in *Measurement Threshold policies,* etc.

Deployment Package use: Exchange SPI deployment is simplified with the package used to activate the programs necessary to implement policies.

Other Tools' use: Exchange SPI tools include two groups: EXSPI Admin and EXSPI Graphs that allow you to do the following:

- *EXSPI Admin:* Aside from the Discovery tools, you can use Admin tools to control the on/off state of Exchange SPI data collections, run a diagnostic discovery of installed Exchange SPI components, and complete certain configurations required for some policies.

- *EXSPI Graphs:* Generate graphs representative of some collected data. By deploying the Measurement Data Collector to selected nodes, you enable this tool to graph data collected on those nodes. To generate graphs, you double-click the tool which launches the VantagePoint Performance grapher. In the dialog that appears you can configure the metrics you want drawn within the graph.

  Some messages that appear in the Message Browser have operator actions associated with them. In these cases, you have another means of graphing data where you can graph the metric that generated the message as well as others that may be related to it. Data from any Exchange SPI server can be drawn using the Performance Grapher. For more information on graphing with the Performance Grapher, see the VP/Windows on-line Help.

NOTE   Other graphs representing Exchange data are available through the separately purchased VantagePoint Reporter. Exchange SPI comes with a default set of reports ready for use with VP Reporter. The chapter that follows provides instructions on how to configure the Exchange SPI to work with VantagePoint Reporter to produce Web-based, management-ready reports showing Exchange server performance/availability.

Suggested Daily Tasks

After installing and configuring the Exchange SPI, you can now focus on other areas of the VP/Windows console (aside from Policy Management) to routinely monitor and interpret the collected data. Those areas are as follows:

■ **Check the VP/Windows message browser:**

Watch for warning and critical messages or multiple alarms. Read the associated instruction text.

If too many alarms are occurring and servers seem to be performing all right, you likely need to adjust the Exchange SPI measurement threshold policy that is causing the alarm. See the VantagePoint for Windows on-line Help for instructions on how to adjust a threshold in a policy).

■ **Use the VP/Performance Grapher**

When you become aware of problems with a server (system), you can use the Performance Grapher to drill down for additional information or view historical trends.The Exchange SPI Graphs tools allow you to launch the VP/Windows Performance Grapher, where you can view data in graphs like the one pictured:
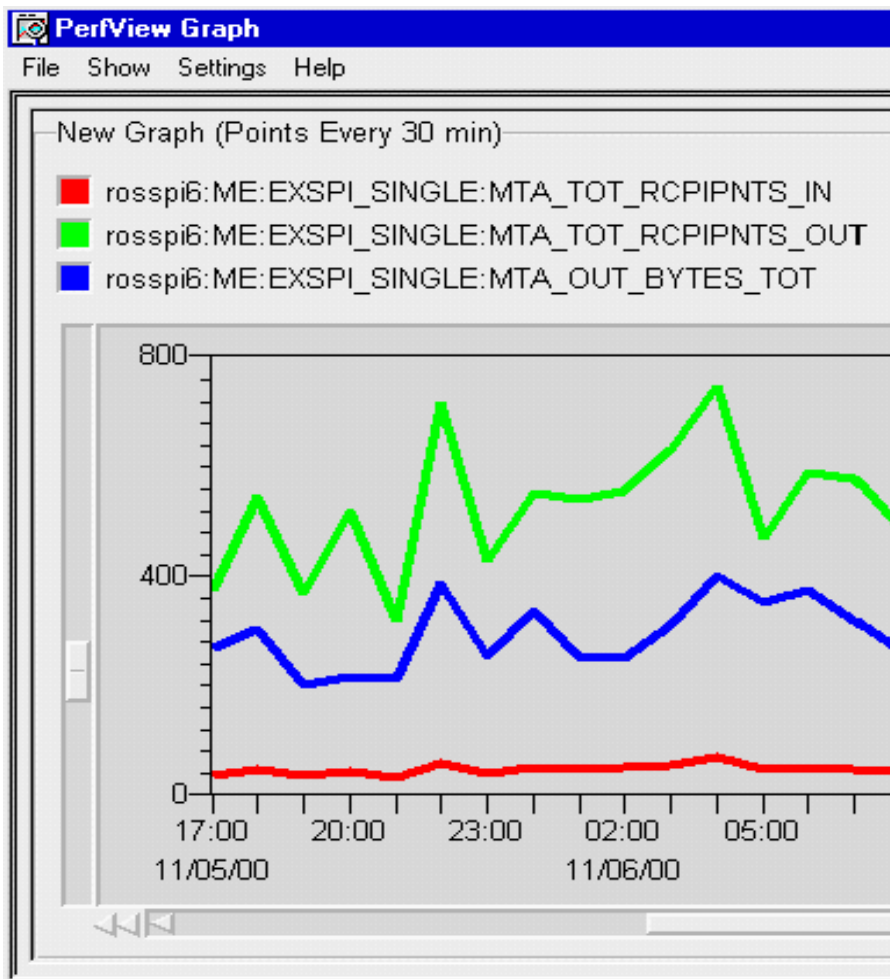
For details on the Performance Grapher, use the VP/Windows on-line Help for instructions for graphing selected Exchange SPI metrics.

■ **Review VP/Reporter Reports (if available)**

If you have purchased VantagePoint Reporter, you can review summary and detail reports, generated on a daily basis, for information on Exchange server performance/availability. These reports are listed and defined in the Exchange SPI on-line Help.

Using VantagePoint Reporter, you can view Exchange data in the many reports included in the Exchange SPI report package:

HP OPENVIEW   **VantagePoint SPI for Exchange**
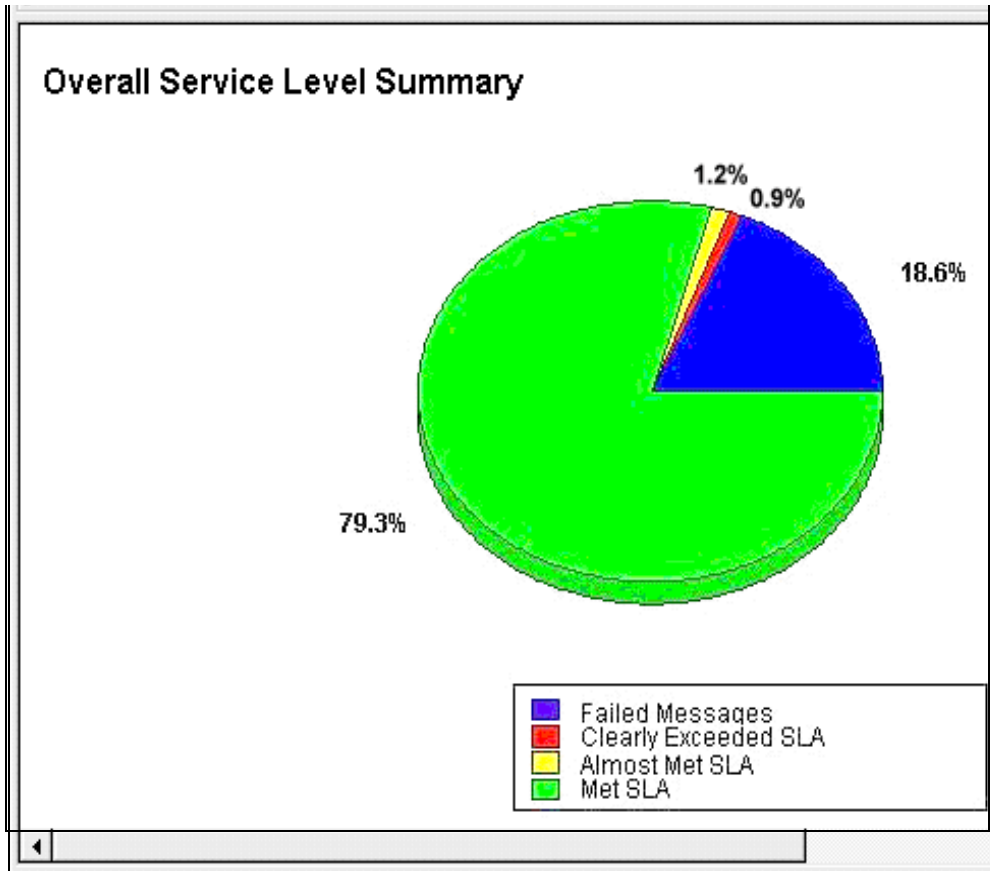
Exchange Mailbox Details for ROSSPI26

This report lists all the mailboxes on the server sorted by disk space usage. It contains the most recent information available as of the date indicated.

6 Nov 2000

Mailboxes by Disk Space Usage

Mailbox Name	Size (MB)	No. Messages	Storage Limits
Newman	123.020	4,061	
Clifford_Clavin	98.916	5,220	Prohibit Send
Ben_Franklin	1.776	430	

Bar graphs and pie charts of Exchange Server data are also available in VantagePoint Reporter

Overall Service Level Summary

1.2%
0.9%

18.6%

79.3%

Legend:
- Failed Messages
- Clearly Exceeded SLA
- Almost Met SLA
- Met SLA

Installing & Configuring the SMART Plug-In for Exchange

Getting Started with the Exchange SPI

The sections that follow offer instructions for setting up the structure for discovering Exchange services, deploying the VP/Windows agent, the Measurement Data Collector, the Exchange SPI package, and the Exchange SPI policies to the servers you want to monitor. Exchange SPI policy groups are covered after the last task in this section.

TASK 1: INSTALL THE EXCHANGE SPI WITH THE VANTAGEPOINT FOR WINDOWS ENTERPRISE SOLUTION

When you insert the VantagePoint For Windows Enterprise Solution CD into your CD-ROM drive, the InstallShield wizard is automatically launched. In the first window you choose which products to install, one of which is VantagePoint SMART Plug-In for Exchange.

Please see the *HP OpenView VantagePoint for Windows Enterprise Management Installation Guide* included with the product. This guide offers an overview of the products included in your package as well as the location of all product Release Notes, which you should print and read before getting started.

Note   Choosing to install VantagePoint Reporter also usually installs the Exchange SPI report package. After you configure and deploy Reporter Collection policies, you receive reports in VantagePoint Reporter. If you do not install VP/Reporter now but do so later, you must manually install the Exchange SPI report package (instructions for manual installation of the report package are included in the section *Using the Exchange SPI with VantagePoint Reporter* on page 40).

View the Exchange Organization

Before you get started in configuring the Exchange SPI, you may want to view the organization of Exchange routing groups or sites, and servers within your environment.

1. In the VP/Windows console expand the folder **Policy management** and double-click the **Exchange Map** folder.

2. In the Exchange Server Connection Properties dialog, supply the following entries:
   Server: For Exchange 2000, enter an Exchange domain controller name; For Exchange 5.5, enter an Exchange server name.
   User Name: Enter a user name that can access the named Exchange server (i.e., with LDAP read privileges).
   Domain: Enter the domain to which the Exchange server belongs.
   Password: Enter the password assigned to the above User Name.

The Exchange Server Connection Server Properties dialog.
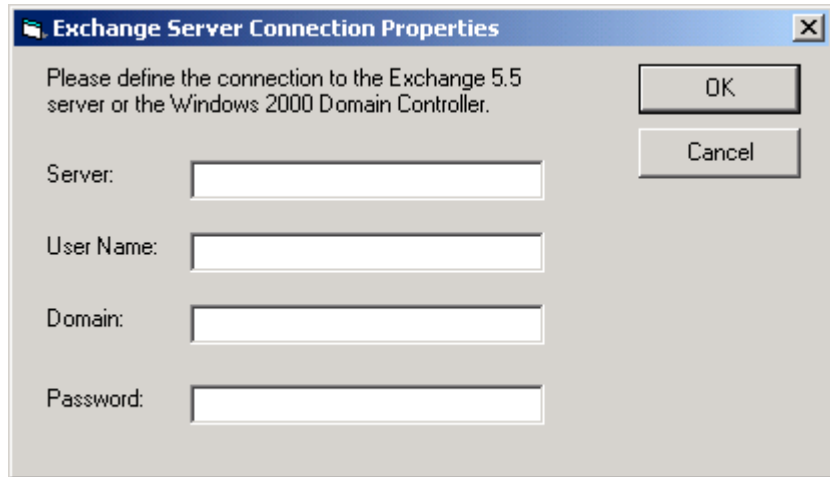
NOTE   Password entry must be according to that established for the specific server name/domain (so that you can access the information).

Entering this information correctly results in additional folders below the Exchange Map as follows:

• **Organizational View**

   By expanding the *Organizational View* folder, you see the name of the organization (as set up by the Exchange administrator).

Below the organization name, you see additional folders for each of the following:

Routing Groups: containing servers in the routing group and connector(s) (if any)

Connectors: containing connector name(s)

Servers: containing server names with the Exchange version installed

- **Messaging View**

    By expanding the *Messaging View* folder, you can see the connections among the routing groups.

TASK 2: IDENTIFY EXCHANGE SERVERS/SERVICES (DISCOVER TOPOLOGY)

The *EXSPI Discover Exchange Topology* tool provides you with information you need to deploy agents/policies to Exchange servers. This tool also discovers the Exchange services running on systems that are VP/Windows managed nodes. For systems not configured as managed nodes, you still can see the Exchange topology, and once you configure them as managed nodes, you can re-run the tool and add their Exchange services to the topology tree.

How it works: On the VP/Windows management server, when you launch the *EXSPI Discover Exchange Topology* tool, an additional folder labeled Exchange 5.5 or Exchange 2000 appears under the console's Services folder. By expanding this new folder, you see the organization of your Exchange server(s) and in the case of VP/Windows managed nodes, the Exchange services running on those servers.

Any Exchange server with no services under it is an unmanaged server. If you want to monitor it, you can add it to the VP/Windows Nodes folder. After adding those server systems, just run the tool again to discover their services. By deploying the Exchange SPI services monitoring policy, you can also receive service alerts (alarms) in the service map and messages in the VP/Windows message browser on the discovered services.

Prerequisite for Exchange 5.5: Running the EXSPI Discover Topology tool for Exchange 5.5 servers requires either that an Exchange server be a VP/Windows managed Node or that an Exchange server name be included in the *Parameters* tab of the tool's launching dialog (see below).

To discover the Exchange server organization:

1. In the VP/Windows console expand the folders **Tools→SPI for Exchange→EXSPI Admin**.

2. In the details pane double-click **EXSPI Discover Exchange Topology**.

3. For Exchange 5.5 only, in the Parameters tab/Parameters text box enter:
   -s *<Exchange_server_name>* [any Exchange server name is acceptable]
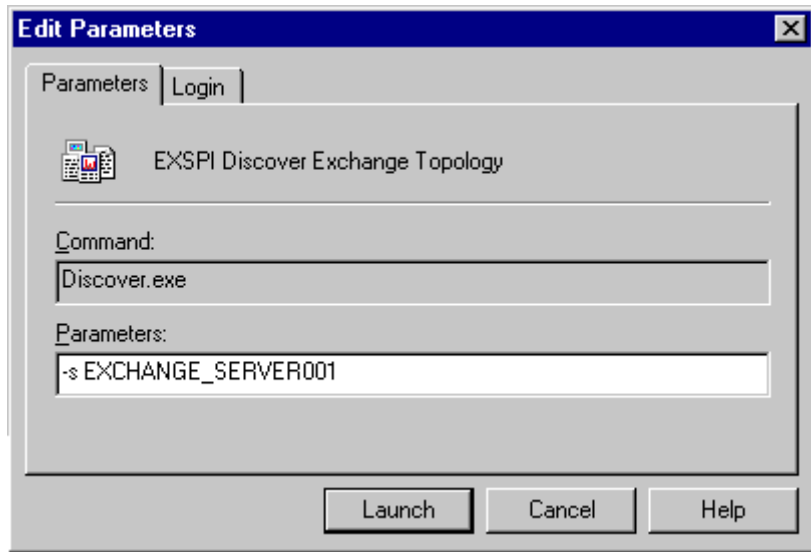
For both Exchange 5.5. and 2000, in the Login tab enter:
User Name: *<administrator_ user_ID>*
Password: *<administrator_password>*

4. Select **Launch**.
   The tool discovers the Exchange organizations, administrator groups (Exchange 2000), routing groups, and servers. If any of those servers are VP/Windows managed nodes, their services are also listed beneath them.

5. View the structure of the Exchange topology hierarchy and services map by expanding the folders **Services**→**Applications**, right-clicking **Exchange 5.5** (or 2000), and selecting **View**→**Map**.

The VP/Windows topology map offers a view both in the console's hierarchy (on the left) and details pane (shown in part on the right) of the discovered Exchange organization or servers.
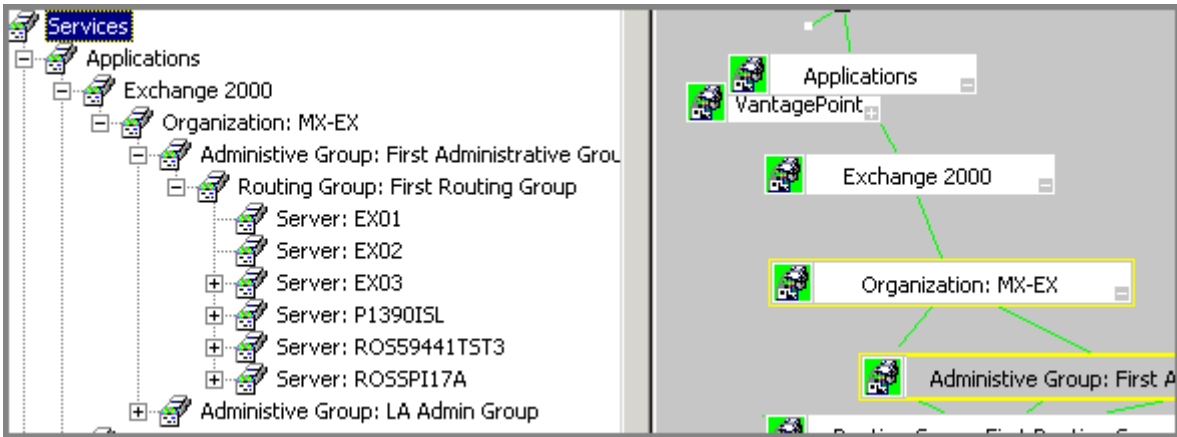

TASK 3: ADD MISSING EXCHANGE SERVERS TO THE NODES FOLDER (AS NECESSARY)

The servers whose services you want to discover and monitor must be included in the **Nodes** folder of the VP/Windows management console window. Discovered Exchange servers without discovered services are not managed nodes. To monitor those servers, you must add them to the VP/Windows Nodes folder now.

To add the Exchange server(s) to the Nodes folder:

1. Open the VP/Windows console and right-click the Nodes folder and select

Configure Nodes...
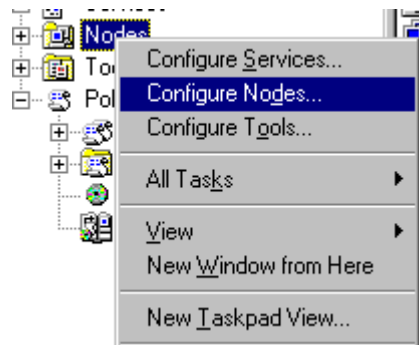
2. In the Configured Managed Nodes dialog, drag and drop nodes from left to right to add to the VP/Windows Nodes folder.
(**Note** that in the right pane of the dialog you can create a folder for Exchange servers before you begin selecting individual servers or domains from the left.)
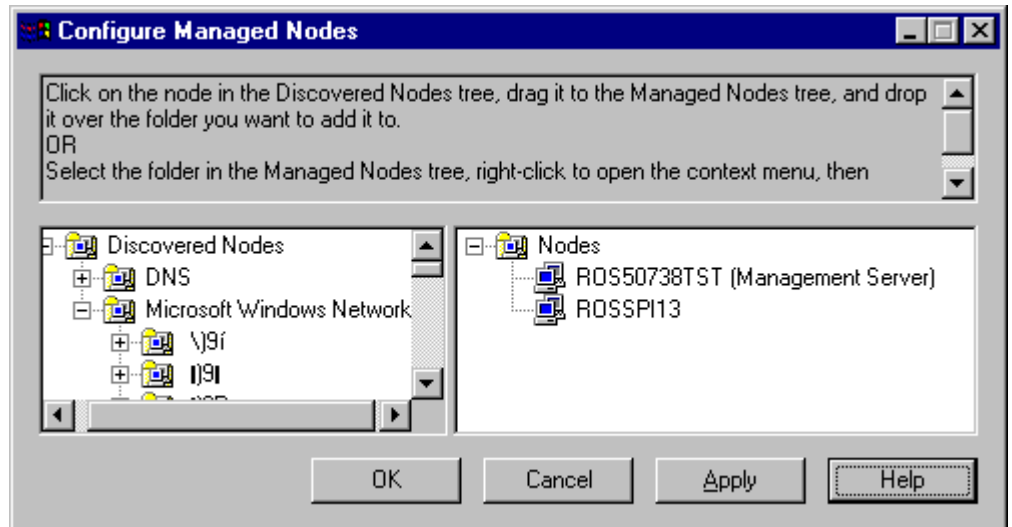
TASK 4: (OPTIONAL) RE-LAUNCH THE DISCOVER EXCHANGE TOPOLOGY TOOL

Now that you have added Exchange servers to the Nodes folder, you can re-launch the EXSPI Discover Exchange Topology tool on each managed node.

To discover services on the added Exchange servers:

1. In the VP/Windows console expand the folders **Tools→SPI for Exchange→EXSPI Admin**.

2. In the details pane double-click **EXSPI Discover Exchange Topology**.

3. Repeat the procedure for entering for entering the Login information (page 5).

4. Select **Launch**.

When the tool completes its discovery, you can view the structure of Exchange services by expanding the folders *Services→Applications.* double-clicking *Exchange 5.5. (or 2000)*, right-clicking a server name, and selecting *View→Map*.

TASK 5: DEPLOY THE VP/WINDOWS AND EXCHANGE SPI COMPONENTS TO THE NODES

After you have added all Exchange servers to the Nodes tree, you are ready to deploy the necessary components for data collection, alarm-generating, and reporting to those nodes.

To deploy the VP/Windows and Exchange SPI components to nodes:

1. In the VP/Windows console expand the folders **Policy management→ Deployment packages**.

2. In the details pane within the list that appears, right-click **Enterprise Message / Action Agent** and select **All Tasks→Deploy on...**.

3. In the Deploy packages on... dialog select all Exchange server nodes by

clicking the check boxes next to Nodes, or select individual nodes by clicking check boxes next to each node and click **OK**.
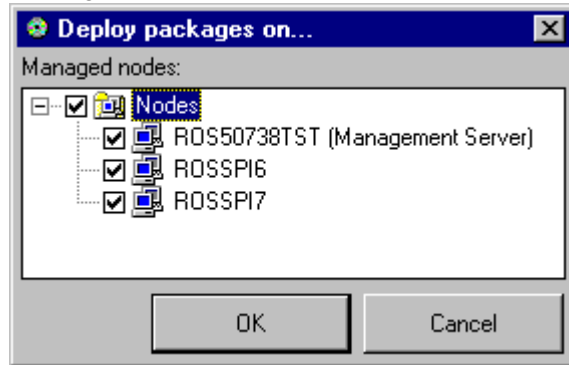
4. Repeat the process for remaining Deployment packages:
   Measurement Data Collector
   SPI for Exchange

TASK 6: SET UP CONSOLE-ONLY NODES (AS NECESSARY)

Before you can use a console-only installed node, you need to add it to the Nodes folder (on the management server), install the console package to the node, and launch the remote-console installation tool. These actions install several files onto the node and set them up to work properly with the management server.

1. At the VP/Windows management server console if you do not see the VP/Windows console-only installed system in the Nodes folder, add it to the folder now (see on Task 3).

2. At the VP/Windows management server console expand the folders **Policy management→Deployment packages**.

3. Right-click the **Remote Console for Exchange SPI** package and select **All Tasks→Deploy on...** and select the console node.

4. At the VP/Windows management server console expand the folders **Tools→SPI for Exchange→EXSPI Admin**.

5. Double-click the **EXSPI Install Remote Console** tool and select the console node again.

6. Before using the console-only system, you must reboot it.

NOTE To view the Exchange Map on the console system, you must restart the Microsoft Management Console.

TASK 7: VERIFY INSTALLATION RESULTS

To check for successful deployment of the packages and policies on the monitored servers:

1. In the VP/Windows Manager console expand the **Nodes** folder.

2. Right-click the node on which to verify deployment and select **View→Package Inventory**.

Using Exchange SPI Policies

Some Exchange SPI policies require that other software components, an Exchange SPI user account, and a mailbox be present on the monitored Exchange Server. The table that follows shows you group-by-group what requirements may exist. For ease of use, you can begin by installing the Quick Start policy group (as outlined in *Deploying the Quick Start Policy Group* on page 16).

Important MS Information on the Web: Before you deploy Exchange SPI policies, please refer to the Microsoft article "PRB: Performance Object Is Not Displayed in Performance Monitor" at URL:
`http://support.microsoft.com/support`
`/kb/articles/Q248/9/93.ASP`.

The article contains information on editing the Windows registry so that peformance objects (tracked by Performance Monitor) are always enabled. A disabled performance object could cause an Exchange SPI policy to fail. By following the instructions in the article, you can ensure that policies are able to collect Exchange peformance data as expected.

EXSPI Policy Prerequisites and Descriptions

Some policies in the **SPI for Exchange** group require software components/services be present on Exchange server systems. For both the EXSPI Quick Start and the EXSPI Advanced groups, you must configure an MSXSPI account.

Use the following tables to decide which policy groups you want to install.With Policy Group Compatibility/Requirements, you can see whether or not the policy group/subgroup works with Exchange 5.5 and/or Exchange 2000 as well as any required configuration (which is covered in the instructions for deploying the policy). Policy Group Descriptions shows you what type of data/functionality the policy group offers.

POLICY PREREQUISITES

Policy Group/ Subgroup	Required Exchange Service	version 5.5	version 2000	Required Manual Configuration
EXSPI Quick Start All Policies	N/A	YES	YES	— MSXSPI user created — Transaction Log policies modified with password
EXSPI Add-Ons EXSPI Chat Service (Exchange 2000)	Exchange Chat Service	NO	YES	N/A
EXSPI Add-Ons EXSPI Conferencing Service (Exchange 2000)	Exchange Conferencing Server	NO	YES	N/A
EXSPI Add-Ons EXSPI Instant Messaging (Exchange 2000)	Exchange Instant Messaging Service	NO	YES	N/A
EXSPI Add-Ons EXSPI cc:Mail Connector	cc:Mail Connector	YES	YES	N/A
EXSPI Add-Ons EXSPI Internet Mail Service	Internet Mail Service (IMS)	YES	NO	N/A
EXSPI Add-Ons EXSPI Lotus Notes Connector	Lotus Notes Connector	YES	YES	N/A
EXSPI Add-Ons EXSPI News Service	N/A	YES	NO	N/A
EXSPI Add-Ons EXSPI NNTP	Network News Transfer Protocol (NNTP)	NO	YES	N/A
EXSPI Add-Ons EXSPI SMTP	Simple Mail Transfer Protocol (SMTP)	NO	YES	N/A
EXSPI Advanced EXSPI Service Map	N/A	YES	YES	– Launch Discover Exchange Topology tool on Exchange Server systems managed by VP/Windows

Policy Group/ Subgroup	Required Exchange Service	version 5.5	version 2000	Required Manual Configuration
EXSPI Advanced EXSPI End to End Message Ping	N/A	YES	YES	— MSXSPI user created —MSXSPI mailboxes created on each system —EXSPI Ping Config to set up server pairs —All policies modified with password
EXSPI Advanced EXSPI Reporter Collection	N/A	YES	YES	— MSXSPI user created —MSXSPI mailboxes created on each system —EXSPI Ping Config to set up server pairs —All policies modified with password
EXSPI Advanced EXSPI Event Log Warnings & Information	N/A	YES	YES	Use only for troubleshooting

POLICY DESCRIPTIONS

Group: EXSPI Quick Start	Description
EXSPI Directory Service	Executes alarm metrics for problems detected in the Microsoft Exchange Directory service.
EXSPI Event Log Errors	Monitors all errors (type = Error) in the Windows System Log.
EXSPI General Data Collection	Contains all standard data collection policies used to feed data into the Measurement Data Collector. The collected data can be graphed in the VP/Performance Grapher or used to generate reports in VantagePoint Reporter.
EXSPI Information Store	Executes alarm metrics for problems detected in the Exchange Information Store service
EXSPI Internal Errors	Open Message Interface policy for trapping EXSPI errors.
EXSPI Message Transfer Agent	Executes alarm metrics for problems detected in the Microsoft MTA service.
EXSPI Services and Processes	Monitors the availability of key Exchange services and processes.
EXSPI Transaction Log	Monitors disk space usage so that the transaction log disk does not run out of room.
Group: EXSPI Add-Ons	**Description**
EXSPI-cc:Mail Connector	Executes alarm according to for cc:Mail Connector metrics. Deploy on all Exchange servers containing the cc:Mail Connector.
Group: EXSPI Add-Ons EXSPI Chat Service	Monitors the current client connections to the chat community, showing anonymous connections, authenticated connections, authentication failures, timeouts.
EXSPI Conferencing Service	Monitors current client connections to the server, server load for online data and video conferences, and CPU process time of the T.120 MCU (multipoint control unit) server.
EXSPI Instant Messaging	Monitors current connections using instant messaging service, current subscriptions, and average processor time per instance.
EXSPI Internet Mail Service	Executes alarm metrics for the problems detected in Exchange Internet Mail service. Deploy on all Exchange servers containing IMS.

EXSPI Lotus Notes Connector	Executes alarms for Lotus Notes Connector metrics. Deploy on all Exchange servers containing the Lotus Notes Connector.
EXSPI News Service	Executes alarm metrics for problems detected in the Exchange News service. Deploy on all Exchange 5.5 servers containing the Exchange News service.
EXSPI NNTP	Executes alarm metric for outbound newsfeed connections that fail. For Exchange 2000 servers.
EXSPI SMTP	Executes alarm metrics for problems detected in messages sent to the Simple Mail Transfer Protocol (SMTP) server.
Group: EXSPI Advanced	**Description**
EXSPI End to End Message Ping	Alarms on AND collects data for the End to End Message Ping metric, 1002
EXSPI Event Log Warnings/Information	Monitors all warnings and information messages in the Windows System Log. Is not typically deployed.
EXSPI Reporter Collection	Feeds data into the Measurement Data Collector for use by VantagePoint Reporter.
EXSPI Service Map	Monitors availability of all discovered services on the managed Exchange Server systems and sends alerts/messages to the VP/Windows service map and message browser when a discovered service is not running.

Deploying the Quick Start Policy Group

To receive any information from a configured Exchange server (one that you have added to the VP/Windows console), you must deploy the Quick Start policy group. This group contains the most basic definitions and rules for scheduling data collecting/graphing, and for generating messages/alerts.

PRELIMINARY TASK: DEPLOY THE BASIC EXCHANGE SPI POLICIES TO NODES

Prerequisite: VP/Windows agent (Enterprise Message/Action Agent), the Measurement Data Collector, and the SPI for Exchange deployment packages deployed to Exchange servers (see *Getting Started with the Exchange SPI* on page 2 of this section).

TASK 1: CREATE AN EXCHANGE SPI USER ACCOUNT

Before you can deploy Quick Start policies, you must create an account for each logon domain where Exchange servers reside. This account enables the Exchange SPI to access information from the Exchange database.

Because significant differences exist between the configuration for Exchange 5.5 and Exchange 2000, two sets of instructions are included for both 5.5 or 2000. Also, if you are using Windows 2000, you will notice that Exchange 5.5 uses some of its features, such as Active Directory, where you can create users and assign permissions.

NOTE   You must create an MSXSPI user in each domain.

FOR MANAGED NODES USING EXCHANGE 5.5 IN A WINDOWS NT DOMAIN

For Windows 2000 systems, see page 19.

1. Log on as Domain Administrator of the domain to which the Exchange server belongs.

2. Select **Start→Programs→Administrative Tools (common)→
   User Manager for Domain.**

3. Select **User→New User**, and in the dialog that appears create a new user as
   follows (see below for Windows 2000 systems:

Username:	MSXSPI
Full Name:	VP/Windows Exchange SPI
Description:	Exchange SPI for VP/Windows
Password/Confirm Password:	*********

   *Remember this password; you will need it later to update Tools and
   Policies.*

NOTE   This password must be entered *but will not be authenticated later*.

4. Deselect **User Must Change password at Next Logon** and select **Password
   Never Expires**

5. Click the **Groups** button to display the Group Memberships window.

Adding the user account to the Domain Admins Group
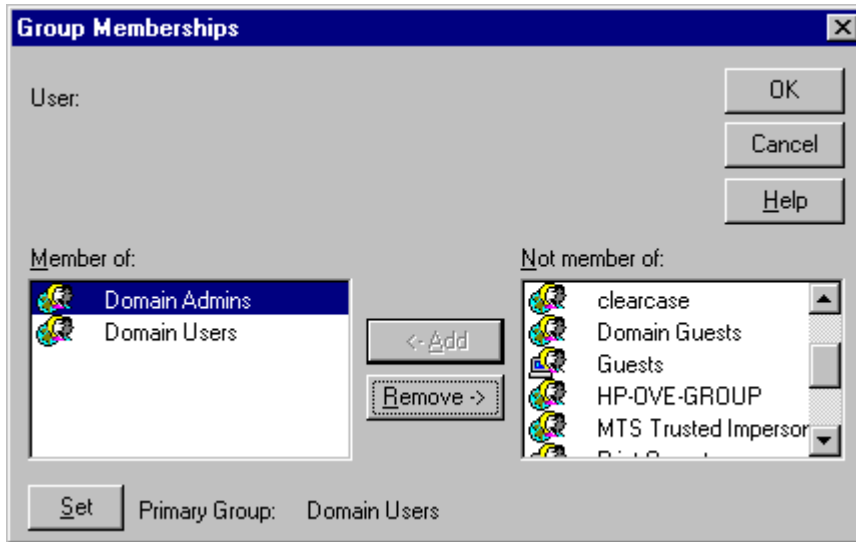
6. At the right, from the **Not a member of:** box select the **Domain Admins**
   user, click **Add,** and **OK** to close the Group Memberships window.

   To include necessary information, click buttons in the New User window:

   Profile: No User Profile should be specified.
   Hours: All hours of the day and week should be allowed.
   Logon To: All workstations should be specified.
   Account: Should never expire/should be Global Account.

7. Click **Add** to add this user. (If the Exchange Add Mailbox window is
   displayed, select **Cancel** to close it.)

8. Click the **Close** button to close the New User window.

9. From the User Manager menu bar select **Policies→User Rights...**.

10. Check the **Show Advanced User Rights** checkbox.

11. From the drop-down list select the following rights for the user account just added:
    Log on as a service.
    Profile system performance.

12. To assign rights, perform the following steps:

    a   Select **Log on as a service** in the Right field.

    b   Click the **Add** button to open the Add Users and Groups window.

    c   Click the **Show Users** button.

    d   Select the user account just added, click **Add**, then **OK**.

    e   Repeat to add the Profile system performance right.

FOR MANAGED NODES USING EXCHANGE 5.5. OR 2000 IN A WINDOWS 2000 DOMAIN:

1. Log on to the system that hosts the managed node's domain.

2. For Exchange 5.5, select **Start→Programs→Administrative Tools→ Active Directory Users and Computers**

   Exchange 2000, select **Start→Programs→Microsoft Exchange→ Active Directory Users and Computers**

3. Expand the Active Directory of Users and Computers and right-click **Users** and select **New→User**.

4. In the dialog box that appears enter MSXSPI as the **First name** and as the **User logon name**; click the down arrow to select the system name and click

Next:

Enter information according to dialogs pictured previously, starting on page 17.

TASK 2: (*FOR WINDOWS 2000 SYSTEMS ONLY*) ENTER AN MSXSPI *ACCOUNT DESCRIPTION*
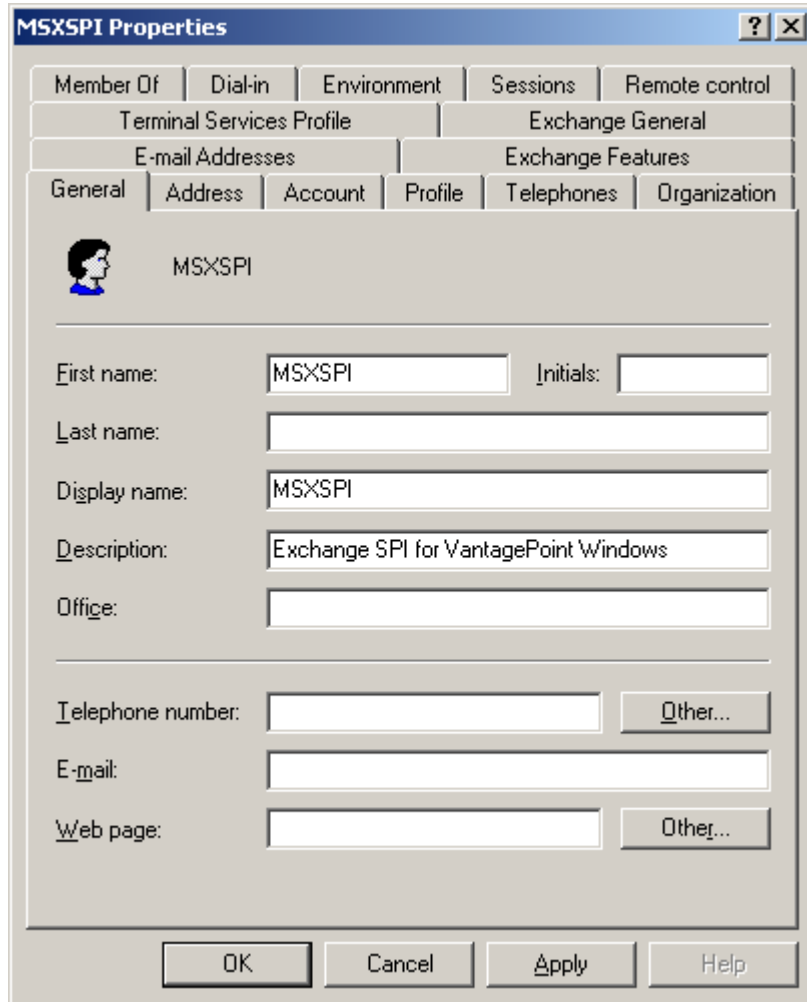
After you have created the MSXSPI user and mailbox, you can open the Properties page for the User to supply a description that helps identify the MSXSPI account as the SPI program that checks the server's availability.

To enter a description of the MSXSPI account:

1. At the task bar, select **Start→Programs→Microsoft Exchange→Active Directory Users and Computers**.

2. In the Active Directory window expand the **Domain** folder.

3. In the left pane expand the **Users** folder.

4. In the right pane, right-click MSXSPI and select **Properties**.

5. In the MSXSPI Properties page select the **General** tabbed page.

6. Enter a description such as **Exchange SPI for VantagePoint for Windows** and exit.

Now you should see the description of the MSXSPI account in the Description column in the Active Directory window.

You have now created an Exchange SPI user account. Continue with "Grant Access Permissions to the User Access" on the next page.

TASK 3: GRANT ACCESS PERMISSIONS TO THE USER ACCOUNT

In order for the MSXSPI user account to have access to a mailbox as well as the Exchange IS Public and Private databases, it must have Exchange Admin permissions. Use Exchange Administrator to grant these permissions at the site level.

For Exchange 5.5 to grant MSXSPI access to each target Exchange server:

1. Select **Start→Program→Microsoft Exchange→Microsoft Exchange Administrator**.

2. For each Exchange site where Advanced policies are to be deployed:

    a   In the left pane within the tree, select *<site_ name>*.

    a   From the File menu select **Properties**.

    b   In the Properties window, select the **Permission** tabbed page and click **Add** to open the **Add Users and Groups** window.

    c   Select the MSXSPI user account previously created, and click the **Add**.

    d   Click **OK** to add the user and close the Add Users and Groups window.

    e   Verify the user has the role of Admin.

    f   Click **OK** to save the changes.

For Exchange 2000 grant MSXSPI access to each targeted Exchange server and enable Message Tracking:

1. Select **Star→Program→Microsoft Exchange→System Manager**

2. In the left pane expand the Administrative Groups folder.

3. Expand your *<Exchange_server_administrative_group>*folder.

4. In the right pane, right-click the server to which you want to grant MSXSPI access and select **Properties**.

5. On the Properties page, select the Security tab.

6. In the Name box select MSXSPI.

7. In the Permission box, find the **Receive As** and **Send As** permissions check boxes and check both.

8. Repeat this procedure for each targeted Exchange server.

Granting User MSXSPI Admin Privileges
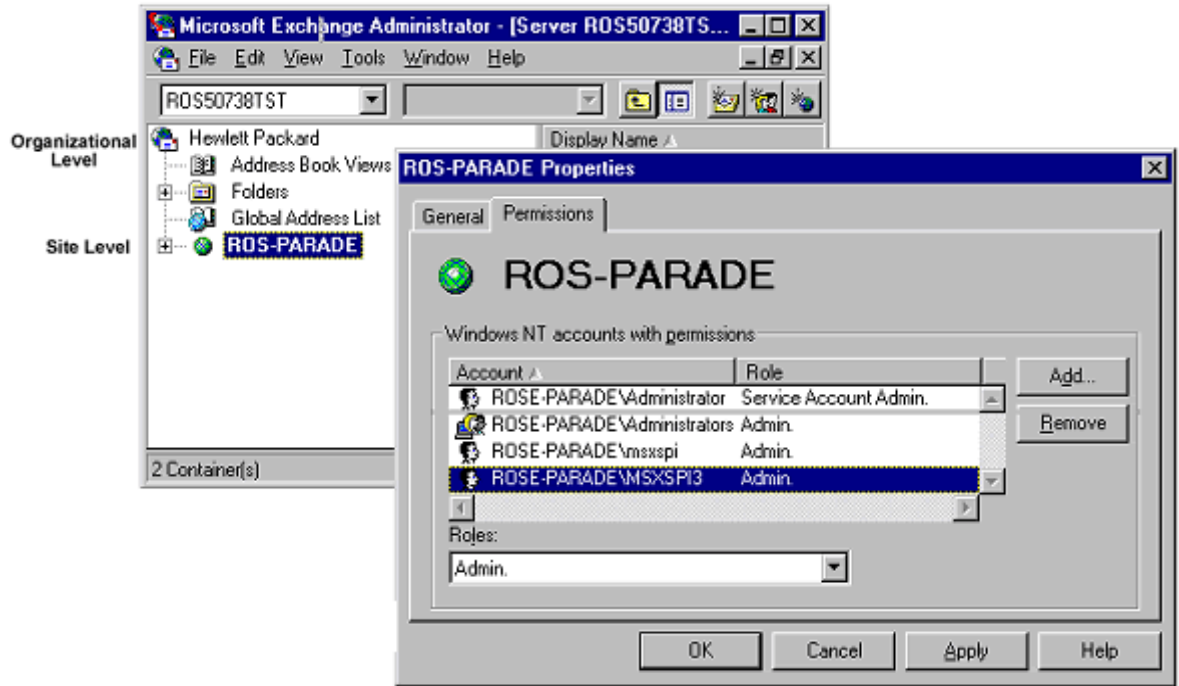
NOTE   At a large Exchange site, it can take several minutes to propagate the new
Exchange administrator information. If you experience permission problems
while accessing Exchange databases, enforce the setting of the new Exchange
Admin account by logging directly on to the affected Exchange server (which is
not yet replicated) and setting the account manually.

TASK 4: ENABLE/EDIT QUICK START POLICIES

Quick Start policy sub-group EXSPI Transaction contains two Scheduled
Command policies
   —EXSPI-15m-Transaction Log
   —EXSPI-1d-Transaction Log
that require editing to include the MSXSPI account password as part of the
policy properties.

To edit the policies:

1. In the VP/Windows console expand the Policy Management folder to display **Policy Groups**→ **SPI for Exchange**→ **EXSPI Quick Start**→ **EXSPI Transaction Log**

2. In the details pane double-click **EXSPI-15m-Transaction Log** to open/edit the policy.

3. In the Properties sheet that appears on the Command tabbed page select the **Specify password*** check box and enter the password assigned to the MSXSPI account you created in *Task 1: Create an Exchange SPI User Account* on page 16.

4. Repeat step #2 and #3 for **EXSPI-1d-Transaction Log**.

TASK 5: DEPLOY EXCHANGE SPI QUICK START POLICIES

1. In the left pane of the VP/Windows Manager console expand the **Policy management**→**Policy groups** folders to view policy groups.

2. Click the plus next to **Exchange SPI** or double-click it to view Exchange SPI policy groups.

3. Right-click **Quick Start** and select **Deploy on...**.

4. In the Deploy packages on... dialog select all nodes by clicking the check box next to Nodes, or select individual nodes by clicking checkboxes next to each node.

Deploying Other Policy Groups

Two additional policy groups supplement the Quick Start group and contain policies that you can select individually rather than deploy as a group:

❑ *EXSPI Add-ons* can be deployed with no additional configuration. These policies collect data that show how related services, such as Lotus notes and Internet Information Services, are performing. *Please see the previous section, listing the policies, for requirements for installing a specific policy in the Add-Ons group.*

    To deploy Add-ons policies, select individual policies, and follow the same steps used for deploying the Quick Start group.

❑ *EXSPI Advanced* policies:

    ■ EXSPI End to End Message Ping policy group enables the Exchange SPI to test network connections to Exchange servers and collect performance data on message receipt and delivery.

        To deploy the EXSPI End to End Ping policy, complete the tasks, starting in the next section.

    ■ The EXSPI Event Log Warnings and Information policy group captures Windows event log text and are generally meant to be deployed for troubleshooting purposes.

    ■ EXSPI Reporter Collection policy group requires that you have VantagePoint Reporter installed.

        To deploy EXSPI Reporter Collection policies, please refer to page 40, "*Using the Exchange SPI with VantagePoint Reporter*," for complete instructions.

■ EXSPI Map policy group monitors all discovered Exchange services and sends a message/alert to the VP/Windows message browser and service map when a service is detected as not running.

Before deploying the EXSPI05min Map policy, you must run the Discover Exchange Topology tool on all VP/Windows-managed Exchange servers. Then deploy the policy as you do all others. (Right-click, select All Tasks→Deploy on....)

The VP/Windows services map offers a drill-down view for an analysis of which server/service has the problem.
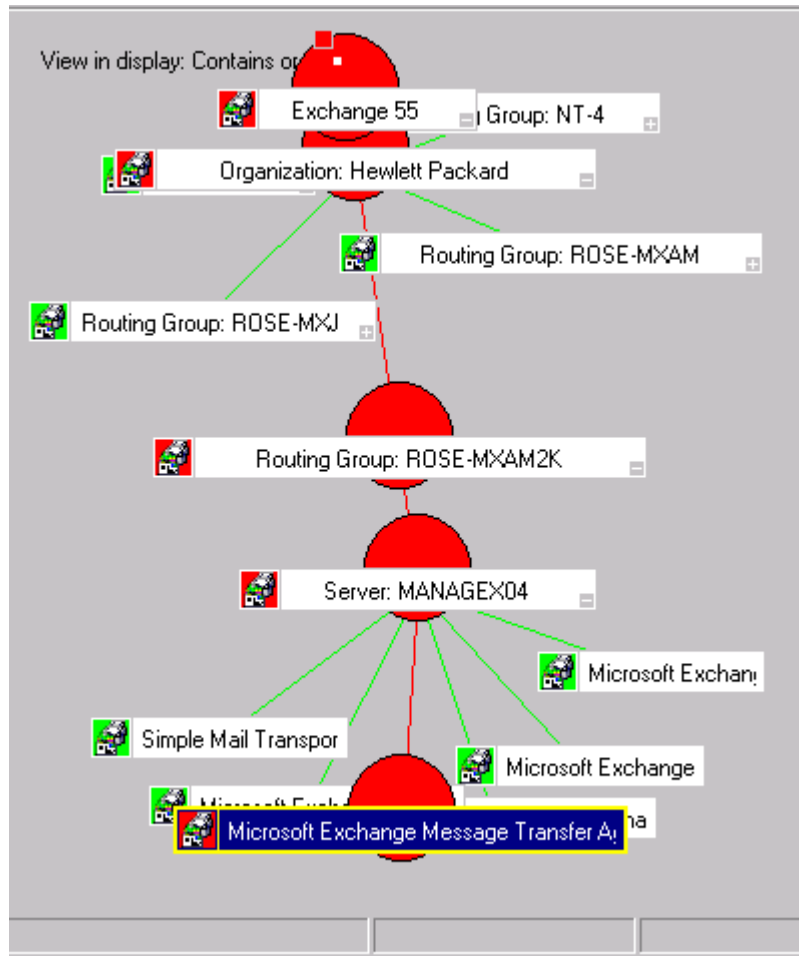
Configuring EXSPI End to End Message Ping

To test server connections and performance in sending/receiving messages, you can use the EXSPI End to End Message Ping policy group. To set up this policy requires a number a steps and the use of the EXSPI MBOX Config tool that allows you to create an Exchange mailbox accessible to the MSXSPI user you created when you set up the EXSPI Quick Start policies. The configuration/deployment instructions below take you through everything you need to do to start using the policy.

Requirement: When you configure server connections (*Task 3: Set Up Server Connections to Test Message Delivery/Receipt (using PING)* on page 33), you must start the EXSPI Admin tool EXSPI Ping Config from the VantagePoint management server.

TASK 1: EDIT THE MBOX CONFIG TOOL

To edit the MBOX Config tool:

1. In the VP/Windows console right-click the **Tools** folder.

2. In the Configure Tools window click to expand to display **SPI for Exchange→EXSPI Admin→EXSPI MBOX Config**

3. Double-click EXSPI MBOX Config and select the **Target** tabbed page in the Tool Properties sheet.

4. In the Password/Verify Password text boxes enter the password assigned to the MSXSPI user account you created in *Task 1: Create an Exchange SPI User Account* on page 16.

5. Click **OK** as required to save the change and exit.

TASK 2: CREATE MAILBOXES

For Exchange 5.5 you must create a mailbox (for the MSXSPI account/password) on every targeted Exchange server so that MSXSPI user can access that mailbox and folder information. For Exchange 2000, you create a user and mailbox for every server; then grant permission for the MSXSPI user to access each of those mailboxes.

For Exchange 5.5, to create a mailbox:

1. In the of the VP/Windows Manager console expand the **Tools→SPI for Exchange→EXSPI Admin** folders.

2. In the scope pane double-click the **EXSPI Admin** folder and in the details pane right-click **EXSPI MBOX Config** and select **Configure Tools...**.

3. Expand the tree again by selecting SPI for Exchange→EXSPI Admin.

4. Double-click **EXSPI MBOX Config** and in the Tools Properties sheet select the **Target** tabbed page and enter:
    User name: **MSXSPI**
    Password: *<password>* (assigned to this account in Task 1).

5. Select **OK** twice to exit the Properties sheet.

6. In the details pane, double-click **EXSPI MBOX Config** to configure mailboxes for the Exchange servers (you can select multiple nodes simultaneously).

Example of successful Mailbox creation

OR

If you receive an error in the above step or you cannot automatically create mailboxes, you must manually complete the following on each Exchange server:

■ For each Exchange server create a mailbox with the prefix MSXSPI and NT hostname. For example, in the illustration above, the node rosspidb5.rose.hp.com (Internet name) and NT name ROSSPIB5 require a mailbox called MSXSPIROSSPIDB5 with primary NT account MSXSPI.

For Exchange 2000 to create a user/mailbox for every targeted server:

1. Select **Start→Programs→Administrative Tools→Active Directory Users and Computers.**

2. In the dialog box that appears enter MSXSPI as the First name and as the
   User logon name; click the down arrow to select the system name and click
   Next and enter information as required.

3. Repeat this process to create a mailbox for each Exchange 2000 server you
   are monitoring.

TASK 3: SET UP SERVER CONNECTIONS TO TEST MESSAGE DELIVERY/RECEIPT (USING PING)

To track the round trip time of a message—from one server to another, then back
again—you can use the *EXSPI End to End Message Ping* policy in the Advanced
group. Before deploying the policy, though, you must configure the pair of
servers that you want to monitor.

To configure the servers:

1. Deploy the configuration file editor to the management server by expanding the folders **Policy management→Deployment packages**

2. In the details pane right-click **ConfigFile policy editor for Administrator Console** and select **All Tasks→Deploy on...** and in the dialog that appears select the management server and click **OK**.

3. Expand the VP/Windows Manager folder to display and select **Policy Management→Policies grouped by type.**

4. Right-click the ConfigFile policy and select **New→Policy**.

5. In the <untitled> [<>] (ConfigFile) dialog, for the Application click the down-arrow and select **exspi**
   (Automatically selected for Sub-Group is exspi_config and for Filename is exspilink.txt.)

6. Select the Data tab and click Load Template, which opens the default file as shown:

```
# Format of the file:
# Src-Svr:Src-MB:::Dest-MB:Timeout:MetSLA:AlmostMetSLA
#
# Src-Svr      = Source Server (required)
# Src-MB       = Source Mailbox (optional).
                 Defaults to 'MSXSPI<host_name>'.
# Reserved     = Reserved for future use, leave empty
# Reserved     = Reserved for future use, leave empty
# Dest-MB      = Destination Mailbox (required)
# Timeout      = Timeout (required) (s-seconds, m-minutes,
                 h-hours)
# MetSLA       = Met SLA time (require for reports)
                 (s-seconds, m-minutes, h-hours)
# AlmostMetSLA = Almost met SLA time
                 (require for reports)
                 (s-seconds, m-minutes, h-hours)
#
# Examples:
#             EXCH1:::::MSXSPIEXCH2:25m:1m:1m
#             EXCH1:MSXSPIEXCH1:::MSXSPIEXCH3:2h:5m:2m
#             EXCH2:MSXSPIEXCH2:::MSXSPIEXCH4:1h:20m:10m
#             EXCH3:MSXSPIEXCH3:::MSXSPIEXCH4:25m:5m:5m
```

7. Enter information about the servers to replace each entry separated by a colon (**:**). When finished, select **Save and Close**.

- **Source Server** - The server that the ping originates *from*. Each server where Exchange SPI is distributed has the same file, so Exchange SPI can parse this file and use all lines where the Source Server matches the server where it is run from.

- **Source Mailbox** (optional) - The mailbox to send the mail *from*. If this is not included, a default account is used "MSXSPI<*host_name*>" where <*host_name*> is replaced with the name of the server.

- **Destination Mailbox** (required) -The mailbox to send the ping *to*. This field is usually the only required destination entry.

- **Timeout** (required) (s-seconds, m-minutes, h-hours): - If a sent message does not return in the defined timeout interval, EXSPI logs it as a failure and sends a message to the VP/Windows management server. Failed messages are tallied in terms of count and percentage within a report. The timeout value must be larger than the values for **MetSLA** and **AlmostMetSLA** so that a returned message can be processed using these values. It may have **Exceeded SLA** even though it has not exceeded the timeout interval. A **Failed/Timedout** message occurs, therefore, only when the message never returns and the timeout period is exceeded.

NOTE The minimum timeout value should be set slightly less than the collection interval. For example, if the collection interval for metric 1002 is 30 minutes (the default), the timeout should be set to at least 25 minutes. The logic is that because the next measurement occurs only every 30 minutes, you should allow up to that amount of time for any messages to return before "giving up" and generating a failure. If you keep the timeout value within the collection interval and the reply message does return, it can be processed as Met, Almost Met or Exceeded as opposed to Failed/Timedout.

- **MetSLA** (required for reports) (s-seconds, m-minutes, h-hours) - If the round trip time is greater than this value, the message is logged as either Almost Met SLA or Exceeded SLA. This value is

required if data is being sent to the Measurement Data Collector Agent DSI for reporting (-l option when running exspi.exe). It is optional if only using alarms.

- **AlmostMetSLA** (required for reports) (s-seconds, m-minutes, h-hours) - If the round trip time is greater than the MetSLA value but less than or equal to MetSLA plus AlmostMetSLA, the message is logged as Almost Met SLA. Otherwise, when the round trip time is higher than MetSLA plus AlmostMetSLA, it is logged as Clearly Exceeded SLA. This parameter is required if data is being logged to MeasureWare Agent DSI (-l option when running exspi.exe), optional if only using alarms.

NOTE   *Timeout*, *MetSLA*, and *AlmostMetSLA* values can have optional identifiers that denote the measurement units the value represents; for example, 4m (4 minutes) 30s (30 seconds) or 1h (1 hour). The default unit is seconds; for example, the entry *4* is recognized as 4 seconds.

Examples:

EXCH1::::MSXSPIEXCH2:25m:1m:1m -
Use the default FROM mailbox of MSXSPIEXCH1. Message must return within 1 minute to meet the SLA, 2 minutes to almost meet the SLA, and at over 25 minutes generates a failure/timeout.

EXCH1:MAILBOXEXCH1:::MAILOXEXCH3:2h:5m:2m -
Message must return within 5 minutes to meet the SLA, 7 minutes to almost meet the SLA, and at over 2 hours generates a failure/timeout.

EXCH2:MAILBOXEXCH2:::MAILOXEXCH4:1h:20m:10m -
Message must return within 20 minutes to meet the SLA, 30 minutes to almost meet the SLA and at over 2 hours generates a failure/timeout.

TASK 4: (OPTIONAL) SET UP EXSPI END TO END MESSAGE PING ALARMS—CONFIGURE SERVER PAIR THRESHOLDS

Alarms can be set to occur with metric 1002 (Ping). Because you may need to set different thresholds for multiple server pairs, the following examples are included. These examples show the syntax to insert in the exspilnk.txt file to set differing thresholds. Metric 1002 sends the "FromMailbox,ToMailbox" in the object pattern fields with the following definitions:

> FromMailbox = **FromServer:FromMailbox**
> ToMailbox   = **:ToMailbox**l

Config Entry	Object
EXCH1::::MSXSPIEXCH2:25m:1m:1m	EXCH1:MSXSPIEXCH1,:MSXSPIEXCH2
EXCH1:MAILBOXEXCH1::: MAILOXEXCH3:2h:5m:2m	EXCH1:MAILBOXEXCH1,:MAILOXEXCH3
EXCH2:MAILBOXEXCH2::: MAILOXEXCH4:1h:20m:10m	EXCH2:MAILBOXEXCH2,:MAILOXEXCH4

For example:

Condition Name & Type	Condition Object Pattern	Thrshld	Explanation
EXSPI-1002.1 +Message on Matched Condition	EXCH1:MSXSPIEXCH1,: MSXSPIEXCH2	120	Threshold condition for ping between System EXCH1 and mailbox MSXSPIEXCH2 on system EXCH2. Object pattern is case sensitive.
EXSPI-1002.2 +Message on MatchedCondition	EXCH1:MSXSPIEXCH1,: MSXSPIEXCH3	240	Threshold condition for ping between System EXCH1 and mailbox MSXSPIEXCH3 on system EXCH3. Object pattern is case sensitive.

Condition Name & Type	Condition Object Pattern	Thrshld	Explanation
EXSPI-1002.3 -Suppress Matched Condition	EXCH1:MSXSPIEXCH1 ,: MSXSPIEXCH2 EXCH1:MSXSPIEXCH1 ,: MSXSPIEXCH3		If the threshold was not exceeded for these two system pairs, you must suppress the message if either of these system pairs gets past 1002.1 or 1002.2.
EXSPI-1002.4 +Message on Matched Condition		60	A blank object pattern to catch all remaining system pairs.

TASK 5: MODIFY THE POLICY TO INCLUDE THE MSXSPI ACCOUNT PASSWORD

Before deploying the EXSPI End-to-End Message Ping policy, you must edit it so that it has access to data on the Exchange Server system.

To edit the policy:

1. Open the VP/Windows console and expand the **Policy Management** folder.

2. In the left pane select **Policy groups**→**SPI for Exchange**→**EXSPI End-to-End Message Ping** group.

3. In the right pane right-click the **EXSPI End-to-End Message Ping** policy and select **All Tasks**→**Edit**.

4. In the dialog that appears, leave the user name as MSXSPI, check the **Specify Password** check box, and enter the password you have assigned to the MSXSPI account.

5. Select the **Save and Close** button.

TASK 6: DEPLOY INSTRUMENTATION

To distribute the configuration set up in the previous section, deploy the VP/Windows instrumentation to the managed node as follows:

1. In the of the VP/Windows Manager console expand the **Nodes** folder.

2. Select the node, right-click to select **All Tasks→Deploy Instrumentation**.

3. Repeat for each node to which you want to deploy the EXSPI End to End Message Ping policy.

TASK 7: DEPLOY THE CONFIGURATION FILE AND THE POLICY

1. In the VP/Windows Manager console expand the folders **Policy management→Policy groups→Exchange SPI→EXSPI Advanced**.

2. In the EXSPI Advanced folder double-click the Advanced policy group you want to deploy.

3. In the details pane where all the policies and/or configuration file are now listed, select the policies and/or configuration file, right-click, and select **Deploy on...**.

4. In the Deploy packages on... dialog select all nodes by clicking the check box next to Nodes, or select individual nodes by clicking checkboxes next to each node.

You have now completed the advanced configuration installation process. The Exchange SPI is ready to use.

Using the Exchange SPI with VantagePoint Reporter

If you have purchased VantagePoint Reporter, you can use it with the SMART Plug-In for Exchange to generate reports. Report generation requires that you complete the following:

❑ Verify Installation of the Exchange SPI Report Package;
  Install the Exchange SPI Report Package (if necessary)
❑ Configure/deploy Exchange SPI Reporter Collection policies
❑ Enable VP Reporter to generate Exchange SPI reports

VERIFY INSTALLATION OF THE EXCHANGE SPI REPORT PACKAGE

VantagePoint Reporter, as a stand-alone application, may or may not be present on the VantagePoint for Windows system. If Reporter is not present on the same system as VP/Windows, you may need to install the Exchange SPI Report package.

To verify the Exchange SPI Report Package installation:

1. On the VantagePoint Reporter-installed system, open the Reporter main window and select **File→Configure→Report Packages**.

2. In the Configure Report Packages dialog, check whether or not
    SPI for Exchange is present:
    (a) If the SPI for Exchange is not present, proceed to the following section,
    "*Install the Exchange SPI Report Package (if necessary)*."

    (b) If the SPI for Exchange is listed in the Available Packages, click the
    right-arrow and the **OK** button to install, and proceed to "*Configure/Deploy
    Reporter Collection Policies for Use with VantagePoint Reporter*."

    (c) If the SPI for Exchange is listed in the Installed Packages, proceed to
    "*Configure/Deploy Reporter Collection Policies for Use with VantagePoint
    Reporter*."
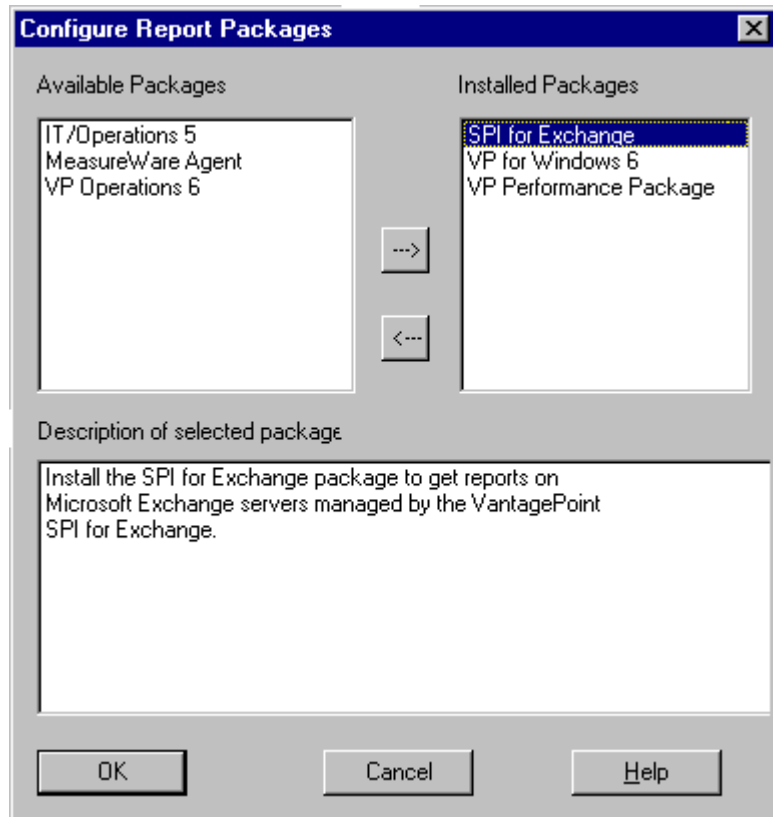
INSTALL THE EXCHANGE SPI REPORT PACKAGE (IF NECESSARY)

To install the Exchange SPI Report Package on the VP Reporter system *(necessary when VP Reporter is present on a system different from VP/Windows):*

1. Insert the VP/Windows CD in the CD-ROM drive of the VP Reporter. system.

2. Select **Start**→**Run**→\<*CD-ROM drive*>:
   \Products\
   VP Exchange SPI Reporter Package\setup.exe

   and follow the instructions on screen.

Now the Exchange SPI report templates are loaded into VantagePoint Reporter, you can proceed to the next section, where you set up policies for data collection.

Configure/Deploy Reporter Collection Policies for Use with VantagePoint Reporter

For any Exchange server system on which you would like to receive reports, you need to deploy Exchange SPI policies from the EXSPI Advanced→EXSPI Reporter Collection group. But before deploying a Reporter Collection policy, you complete enable message tracking (for Exchange 5.5 systems), and configure an EXSPI user account with mailbox. Any steps you have completed in other setup procedures (for example, EXSPI End to End Message Ping), you can omit.

TASK 1: ENABLE MESSAGE TRACKING

Exchange provides a message-tracking facility that stores processed message information in a log file. This information, which includes sender address, recipient address(es), and message size, is collected by the EXSPI-Dc-TrackLog

Data collection policy. This policy, part of the EXSPI Reporter Collection (Adv) policy group, must be deployed to the appropriate managed node(s) as described later in this chapter.

Message tracking must be enabled on Exchange servers as shown below.

For Exchange 5.5: Follow these steps to enable message tracking.

1. Select **Start→Programs→Microsoft Exchange→
    Microsoft Exchange Administrator**.

2. Expand the site level and **Configuration** to view selections beneath it.

3. In the details pane double-click **Information Store Site Configuration**.

4. In the Information Store Site Configuration Properties window, check the
    Enable message tracking checkbox, and select **OK**.

Enabling Message Tracking

5.   Repeat steps 3 and 4 for MTA Site Configuration.

Configuring the MTA Site
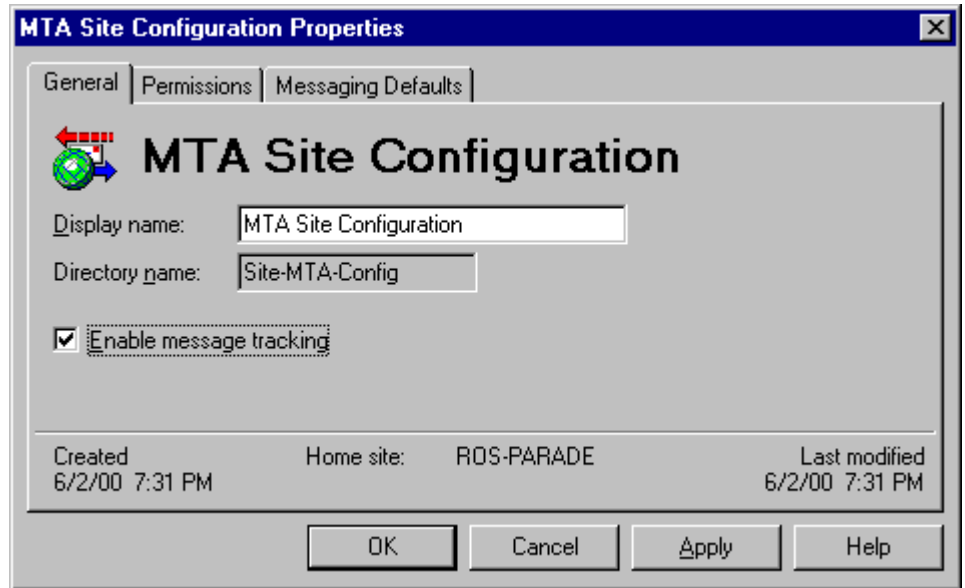
If the Internet Mail Service connector does not exist, skip the following steps.

6.   In the left pane select **Connections**.

7.   In the right pane select **Internet Mail Service**, check the **Enable message tracking** checkbox, and press **OK**.

For Exchange 2000: Follow these steps to enable message tracking.

1.   Select **Start→Programs→Microsoft Exchange→System Manager**.

2.   Expand the Administrative Groups to see individual servers.

3.   Right-click on the server and select **Properties**.

4.   In the General tab check the **Enable message tracking** check box.

5. Repeat steps #3 and #4 for each server.

TASK 2: EDIT THE MBOX CONFIG TOOL

To edit the MBOX Config tool:

1. In the VP/Windows console right-click the **Tools** folder.

2. In the Configure Tools window click to expand to display
    SPI for Exchange→EXSPI Admin→EXSPI MBOX Config

3. Double-click EXSPI MBOX Config and select the **Target** tabbed page in
    the Tool Properties sheet.

4. In the Password/Verify Password text boxes enter the password assigned to
    the MSXSPI user account you created in *Task 1: Create an Exchange SPI
    User Account* on page 16.

5. Click **OK** as required to save the change and exit.

TASK 3: CREATE MAILBOXES

For Exchange 5.5 you must create a mailbox (for the MSXSPI
account/password) on every targeted Exchange server so that MSXSPI user can
access that mailbox and folder information. For Exchange 2000, you create a
user and mailbox for every server; then grant permission for the MSXSPI user to
access each of those mailboxes.

For Exchange 5.5, to create a mailbox:

1. In the of the VP/Windows Manager console expand the **Tools→SPI for
    Exchange→EXSPI Admin** folders.

2. In the scope pane double-click the **EXSPI Admin** folder and in the details
    pane right-click **EXSPI MBOX Config** and select **Configure Tools...**.

3. In the console expand the folders **SPI for Exchange →EXSPI Admin**.

4. Double-click **EXSPI MBOX Config** and in the Tools Properties sheet select the **Target** tabbed page and enter:
   User name: **MSXSPI**
   Password: *<password>* (assigned to this account in Task 1).

5. Select **OK** twice to exit the Properties sheet.

6. In the details pane, double-click **EXSPI MBOX Config** to configure mailboxes for the Exchange servers (you can select multiple nodes simultaneously).

Example of successful Mailbox creation

OR
If you receive an error in the above step or you cannot automatically create mailboxes, you must manually complete the following on each Exchange server:

■ For each Exchange server create a mailbox with the prefix MSXSPI and NT hostname. For example, in the illustration above, the node rosspidb5.rose.hp.com (Internet name) and NT name ROSSPIB5 require a mailbox called MSXSPIROSSPIDB5 with primary NT account MSXSPI.

For Exchange 2000 to create a user/mailbox for every targeted server:

1. Select **Start→Programs→Administrative Tools→ Active Directory Users and Computers.**

2. In the dialog box that appears enter MSXSPI as the First name and as the User logon name; click the down arrow to select the system name and click **Next** and enter information as required.

3. Repeat this process to create a mailbox for each Exchange 2000 server you

are monitoring.

TASK 4: MODIFY THE REPORTER COLLECTION POLICIES TO INCLUDE THE MSXSPI ACCOUNT PASSWORD

You need to edit each EXSPI Reporter Collection policy so that Exchange Server system data is accessible.

To edit the policy:

1. Open the VP/Windows console and expand the **Policy Management** folder.

2. In the left pane select **Policy groups→SPI for Exchange→ EXSPI Advanced→EXSPI Reporter Collection** group.

3. In the right pane right-click each Reporter Collection policy and select **All Tasks→Edit**:

   ■ EXSPI-Dc-Exchange Info

   ■ EXSPI-Dc-Mailbox Data

   ■ EXSPI-Dc-Private IS Sum. Data

   ■ EXSPI-Dc-Public Folder Data

   ■ EXSPI-Dc-Public IS Sum. Data

   ■ EXSPI-Dc-Tracklog Data

4. In the dialog that appears, leave the user name as MSXSPI, check the Specify Password check box, and enter the password you have assigned to the MSXSPI account.

5. Select the **Save and Close** button.

6. Repeat for each policy.

TASK 5: DEPLOY REPORTER COLLECTION POLICIES

1. In the of the VP/Windows Manager console expand the
    Policy management→Policy groups folders to view policy groups.

2. Click the plus next to **Exchange SPI→EXSPI Advanced** to view the policy
    groups.

3. In the EXSPI Advanced folder double-click the Advanced policy group you
    want to deploy.

4. In the details pane where all the policies are now listed, select the policies,
    right-click, and select **Deploy on...**.

5. In the Deploy packages on... dialog select all nodes by clicking the check
    box next to Nodes, or select individual nodes by clicking check boxes next
    to each node.

Enable VP Reporter to Generate Exchange SPI Reports

A couple more tasks remain that you must complete at the VP Reporter system.

TASK 1: ADD EXCHANGE SERVER SYSTEMS TO VP REPORTER DISCOVERY AREA

In order for VP Reporter to generate reports on any Exchange Server system, it
must "discover" the system. To enable VP Reporter to discover the Exchange
Server system(s):

1. Open the Reporter main window.

2. Expand the Discovery Area to display the Exchange Server systems you
    need to add.

3. From left pane to right, drag and drop each system to be discovered.

4. From the Action menu select **Run→Discover Systems**.
   (*In Reporter's Status pane, text appears to notify you of system(s)
   discovery.*)

5. Expand the **Discovered Systems→All** folder and drag and drop the
   Exchange Server systems from the All area to the NT area.

TASK 2: ASSIGN EXCHANGE SPI REPORTS TO EXCHANGE SERVER SYSTEMS

You need to assign only the Exchange Detail Reports to individual Exchange
Server systems. Exchange Summary Reports are automatically generated for all
managed Exchanged Server systems.

1. In the Reporter main window left pane, expand **Reports** to display
   Exchange Detail reports.

2. In the left pane expand the **Discovered Systems** to display the Exchange
   Server system for which you want to generate reports.

3. Double-click the Exchange Server system to which you want to assign the
   Exchange SPI report.
   (*The system information should appear in the right pane.*)

4. Use Ctrl+Shift to select all the Exchange Detail reports and drag them from
   left to right to the Exchange Server system that should be displayed in the
   right pane.

5. Repeat for every Exchange Server.

You may find it necessary to wait until the following day to see reports generated
for the servers to which you have assigned Exchange SPI reports.

3

Customizing/Removing the
   SMART Plug-In forExchange

Customizing Policies Using the Tag Feature

If you have servers dedicated to specific sites or business units, you may find it effective for those servers to have specific, uniquely named Exchange SPI policies. In such cases, you copy default policies into new groups, affix prefixes to the original names and include them in the schedule policy that collects data during that measurement interval. The procedure below gives you an example of how you might do this.

TASK 1: CREATE THE NEW POLICY GROUP AND COPY/PASTE POLICIES INTO IT

1. In the Console, expand the **Policy management**→**Policy Groups** folders.

2. Right-click the folder in which you want to locate the new group and select **New**→**Policy Group**.
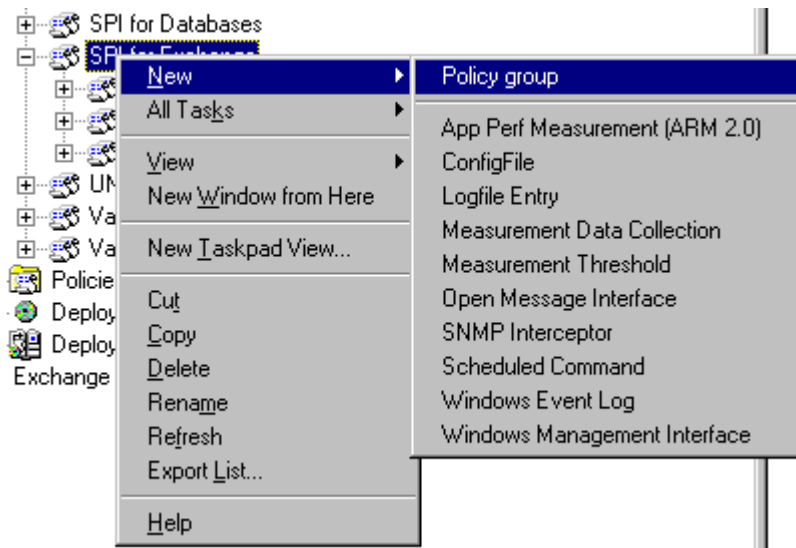
3. Enter the new group name for the folder created and press **Enter**.

4. In the Console, use Shift+click or Ctrl+click to select the default policies that you want to placed in the group, right-click and select **Copy**.

NOTE   Remember to always copy schedule command policies from the default policy group containing the measurement threshold policy you are copying to the new policy group. The scheduled command policy is necessary for any data collection to occur.

5. Right-click the new group you just created and click **Paste**.
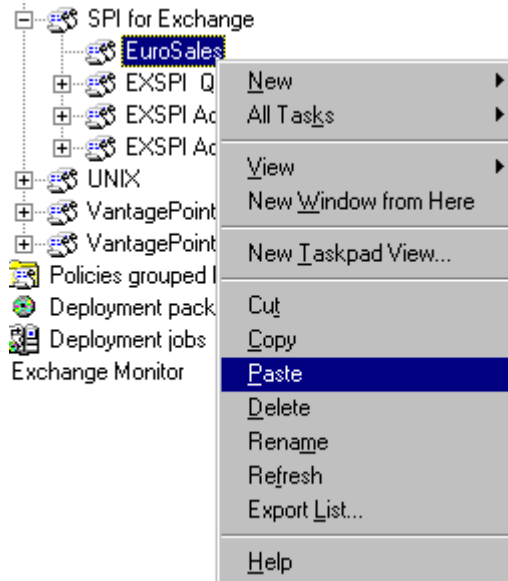
TASK 2: TAG THE POLICIES.

To associate these policies with a specific group, use a prefix. (If you copied an entire group of default policies into the new group, you can eliminate those you do not need by right-clicking them and selecting Delete.)

1. Double-click each policy and make changes (if any) as desired.

2. When you are finished, select **File→Save As** and in the dialog that appears enter a prefix followed by a hyphen (*<prefix>-*) to precede the default

policy name; for example EuroSales-EXSPI006.

Save As ✕

Name: | EuroSales-EXSPI-0006

Version: | 1 | . | 0

Description:
| Transaction Log File Disc Space |

[OK]   [Cancel]
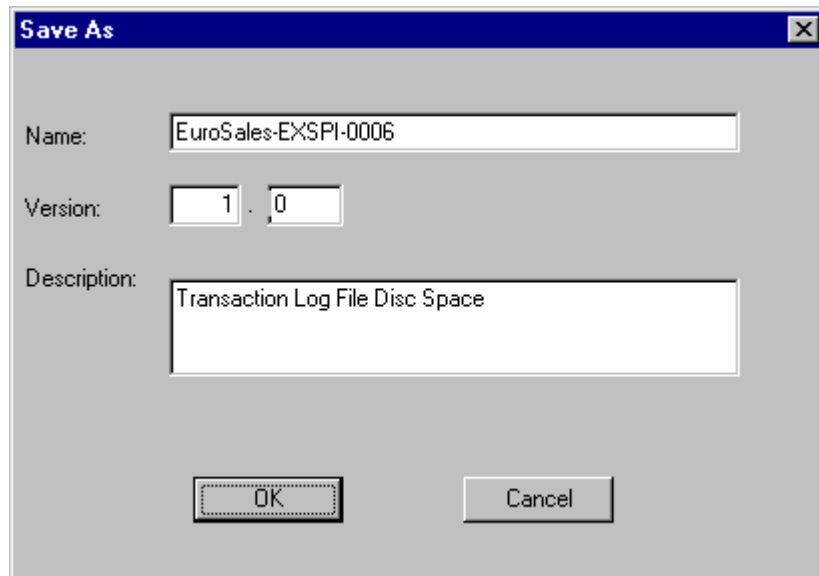
3. After saving the renamed policies, double-click the scheduled command
   policy that you also copied to the new group.
   (*In the example EXSPI-15m-Transaction Log is used.*)

4. In the dialog that appears, select the **Command** tab.

5. In the **Command*** text box at the end of the text, insert the tag (-t)
   parameter and the *<prefix>*-
   For example, to ensure data collection for all the policies renamed with the

prefix MKT- the Command text box would appear as follows:
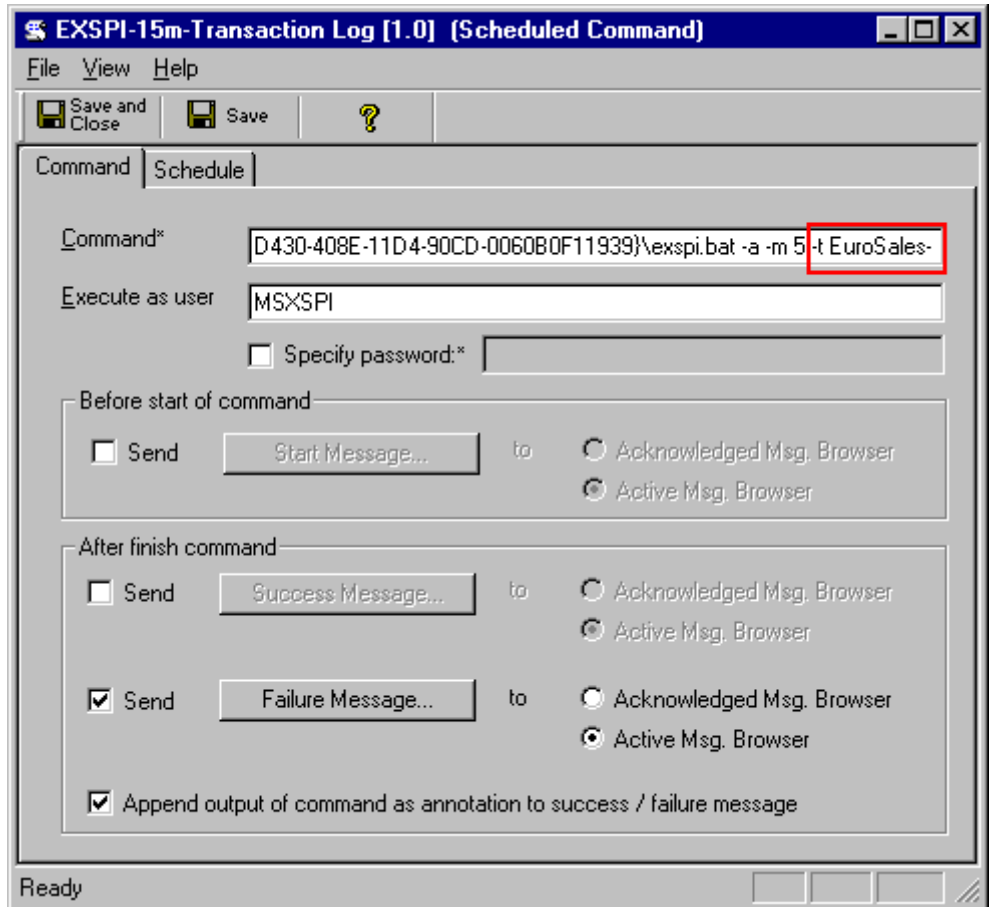
6.   When you are finished, rename the scheduled command policy to include
the group prefix: Select **File→ Save As** and rename the
EXSPI-15m-Transaction Log scheduled command policy to
EuroSales-EXSPI-15m-Transaction Log.
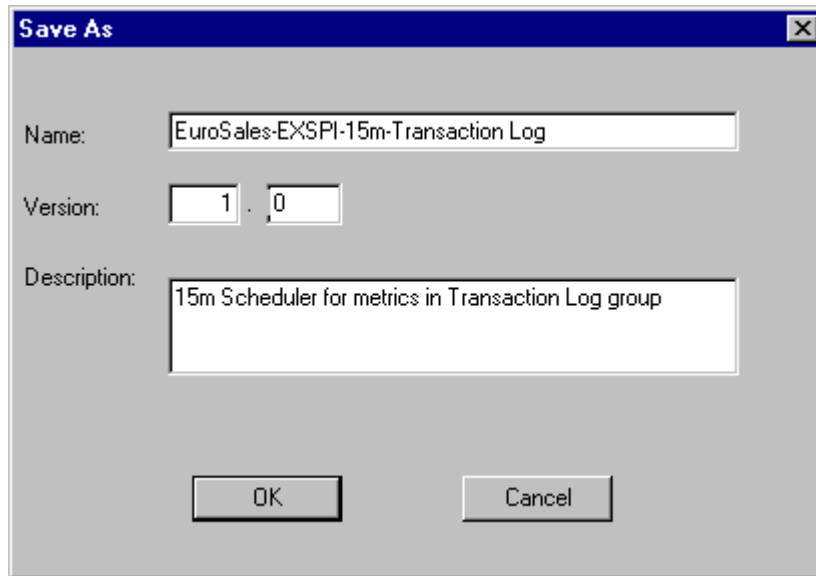
The prefix attached to the beginning of each policy in the new group makes the policies easy to find in the Policies grouped by type folder in the Console. Also, creating a new group for the new policies gives you an efficient means to deploy them (right-click the group and select All Tasks→Deploy on...). Please see the online Help for details.

Uninstalling Exchange SPI

To remove the Exchange SPI, first uninstall all components and policies from the managed nodes, then from the management server.

TASK 1: (AS NECESSARY) REMOVE EXCHANGE SPI REMOTE CONSOLE PROGRAMS

1. At the VP/Windows console-only installed system select **Start→Settings→Control Panel** and double-click **Add/Remove programs**.

2. In the Add/Remove Properties Install/Uninstall tabbed page, select the **SPI for Exchange Remote Console** and choose **Change/Remove**; follow the online instructions.

TASK 2: REMOVE EXCHANGE SPI PACKAGE FROM MANAGED NODES / REMOTE CONSOLE (AS NECESSARY)

1. At the VP/Windows console expand the folders **Policy management→Deployment packages**.

2. In the details pane, right-click the **SPI for Exchange** package, select **All Tasks→Uninstall from...,** and in the dialog that appears select the node(s).

3. If you have remote console installations, repeat the above two steps only choose the **SPI for Exchange Remote Console** package and select the console nodes.

TASK 3: REMOVE EXCHANGE SPI POLICIES FROM ALL MANAGED NODES

1. At the VP/Windows console expand the folders **VantagePoint Manager→Policies grouped by type**.

2. Double-click **Measurement Threshold**.

3. In the details pane click the Name column to sort policies by name and select all (Shift+click) policies starting with **EXSPI**.

4. In the details pane right-click highlighted policies and select **All Tasks→Remove from all nodes**.

5. Repeat for remaining three Exchange SPI policy types:
    Open Message Interface,
    Scheduled Command, and
    Windows Event Log,
    selecting all policies that start with EXSPI, right-clicking and choosing **All Tasks→Remove from all nodes**.

    OR

1. Right-click the policy group and select **All Tasks→Uninstall from...**

2. In the Uninstall policies on... dialog, select the nodes and/or management server (you can skip Task 3 if you use this method).

TASK 4: REMOVE EXCHANGE SPI POLICY GROUPS FROM THE MANAGEMENT SERVER

1. At the VP/Windows console select expand the folder **Policy groups.**

2. Right-click **SPI for Exchange** and select **Delete**.

TASK 5: REMOVE EXCHANGE SPI TOOLS FROM THE MANAGEMENT SERVER

1. At the VP/Windows console right-click **Tools** and select **Configure Tools**.

2. In the Configure Tools dialog right-click **SPI for Exchange** and select **Delete**.

TASK 6: UNINSTALL EXCHANGE SPI PROGRAMS FROM THE VP/WINDOWS MANAGEMENT SERVER

1. Select **Start→Settings→Control Panel**.

2. In the Control Panel double-click **Add/Remove Programs**.

3. In the Add/Remove Properties Install/Uninstall tabbed page, select
    HP OpenView VantagePoint *<installed_version>*.

4. In the Uninstallation dialog select the **SMART Plug-In for Exchange**
    checkbox and click the **Next** button.

5. Select **Yes** and **Yes To ALL** to prompts regarding removal of shared
    components.

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