

HP OpenView Performance Insight

For the HP-UX, Linux, Solaris, and Windows operating systems

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Installation and Upgrade Guide for Sybase Databases

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The title page of this document contains the following identifying information:

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1 Introduction to OVPI Installation

This guide describes how to install HP OpenView Performance Insight (OVPI) 5.2 in an operating environment that best serves your users.

OVPI 5.2 supports only Sybase Adaptive Server Enterprise version 15. If you are using an older version, you must upgrade. You can find the upgrade instructions in [Chapter 9, Upgrading to Sybase 15.0.1](#).

Operating Environments

You can install OVPI as either a standalone operating environment or as a distributed operating environment. This section contains information about both implementations and about how to choose between them.

OVPI uses a modular client-server architecture that enables you to start with a single standalone system and add to it as needed. You can install multiple remote clients and place them under the control of a single database server, or you can install multiple database servers around the network as necessary to create a distributed OVPI environment.

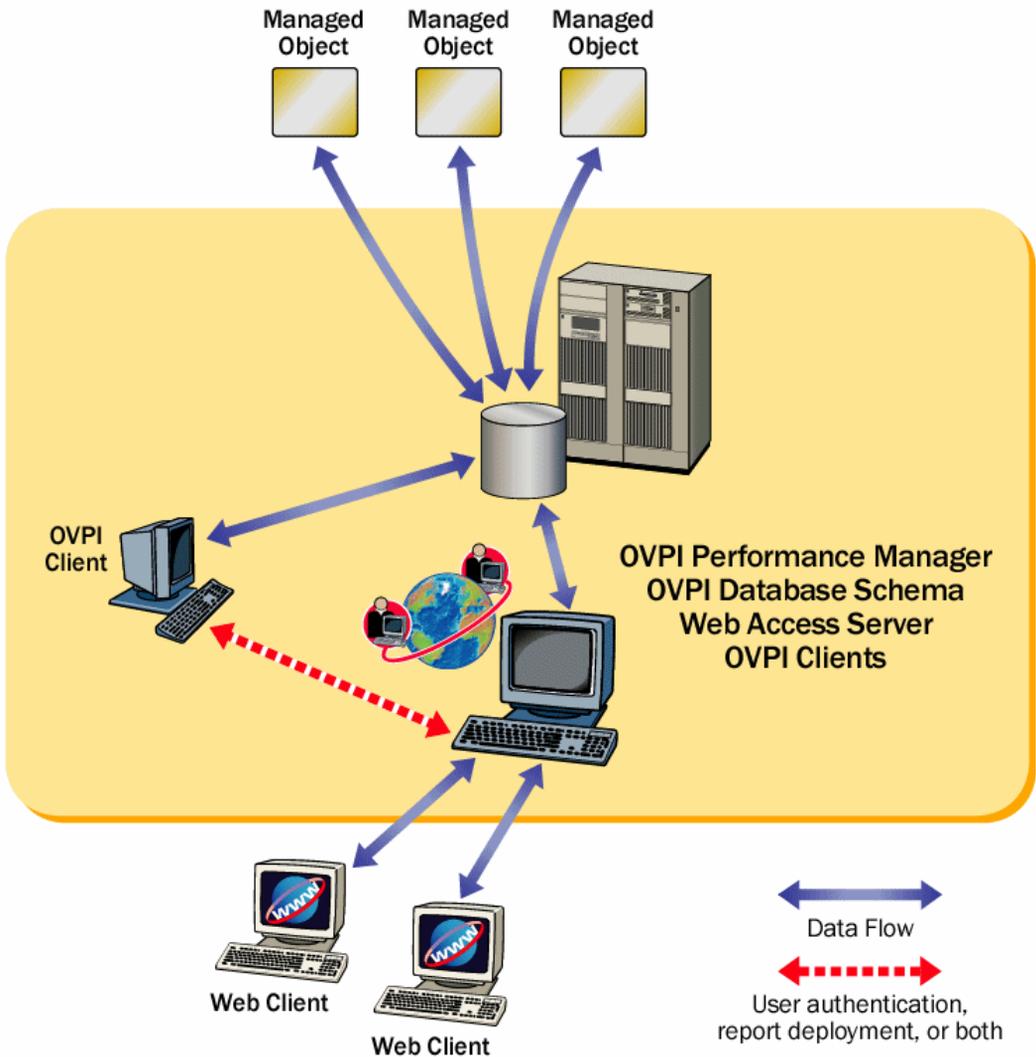
Standalone OVPI Environment

To monitor network performance in a single building or for a single group of users, or if your network contains fewer than approximately 20,000 managed objects, implement a standalone OVPI environment.

In a standalone environment, all OVPI components are installed on one system. The system is capable of polling the managed objects, gathering and processing performance data, hosting the OVPI web site, producing performance reports, and running the OVPI clients.

This type of environment is simpler and less costly to manage than one in which OVPI functionality is distributed because there are fewer components to implement, coordinate, and maintain.

The following figure shows a standalone OVPI environment.



Distributed OVPI Environment

In a large enterprise, a single system may not provide the processing power or space for OVPI to optimally monitor the network, which can make it necessary to distribute the load.

When OVPI components are installed across systems to create a network-wide configuration, it is called a distributed OVPI environment. Although the OVPI components are installed on physically discrete systems, they operate as a single system.

Because networks that require monitoring are often large and geographically dispersed, OVPI is designed to be distributed. Its various components can be positioned functionally throughout the environment to reduce network load and optimize system performance.

In a distributed OVPI environment, you must install the same version of OVPI, including service packs (patch levels), on all systems in the environment.

Distributing Functionality

The OVPI functions that can be located discretely are:

- Data collection
- Data management (processing and summarization)
- Data reporting

All three functions are integrated and their physical location does not affect their integration.

For the most cost-effective use of resources, you can use different platforms to run the different functions. For example, you can use PCs running the Windows operating system as remote polling systems to collect data, and UNIX machines as database servers to store and process data.

Distributing Servers

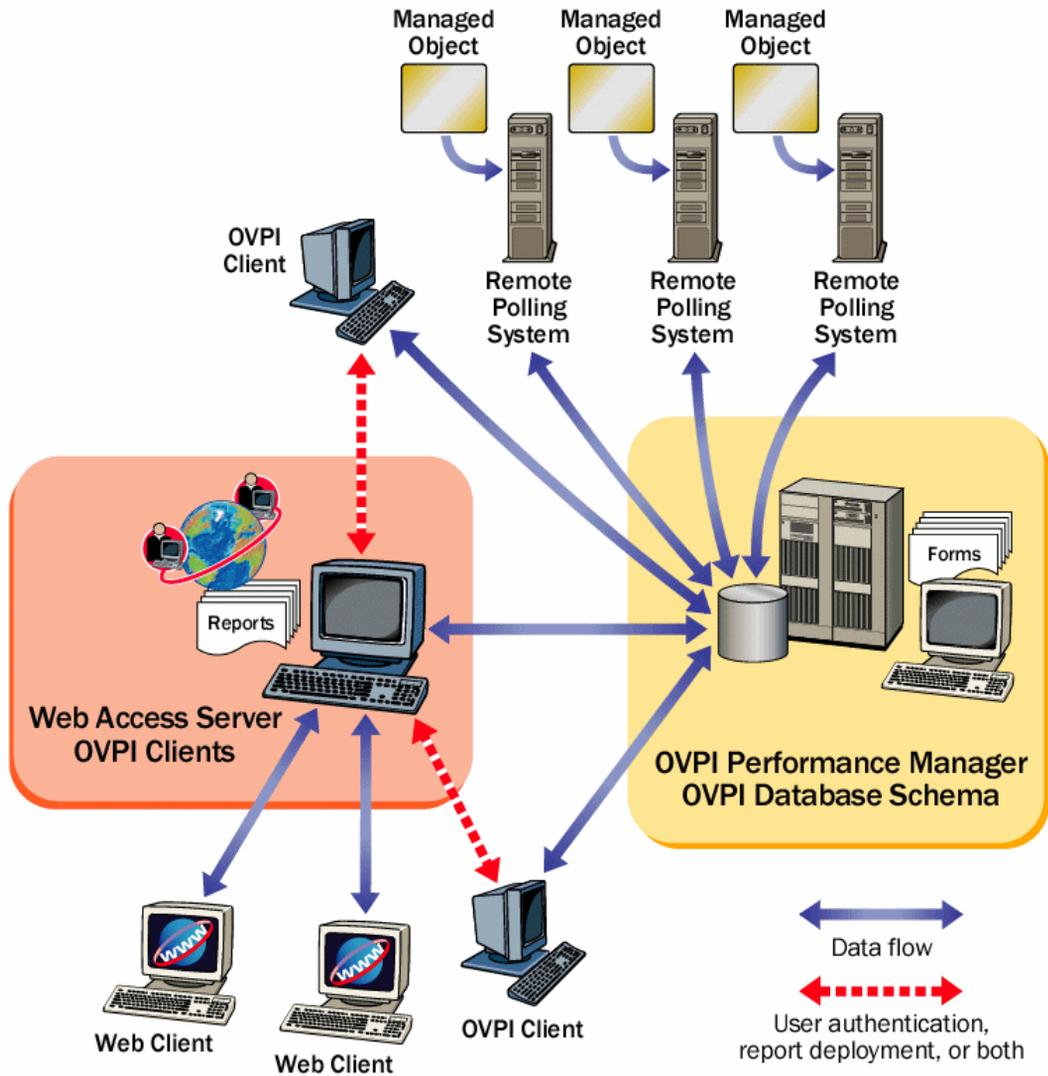
In a distributed OVPI environment, the main processing and reporting platform in the environment is the **central database server**, which is accessible by users throughout the network. Usually, there is only one central database server, and it requires a large amount of disk space, memory, and processing power.

Conversely, there can be any number of **satellite database servers** in the distributed environment, each one responsible for data collection and initial data processing. The data from each satellite database server is uploaded to the central database server, where it is combined with other data.

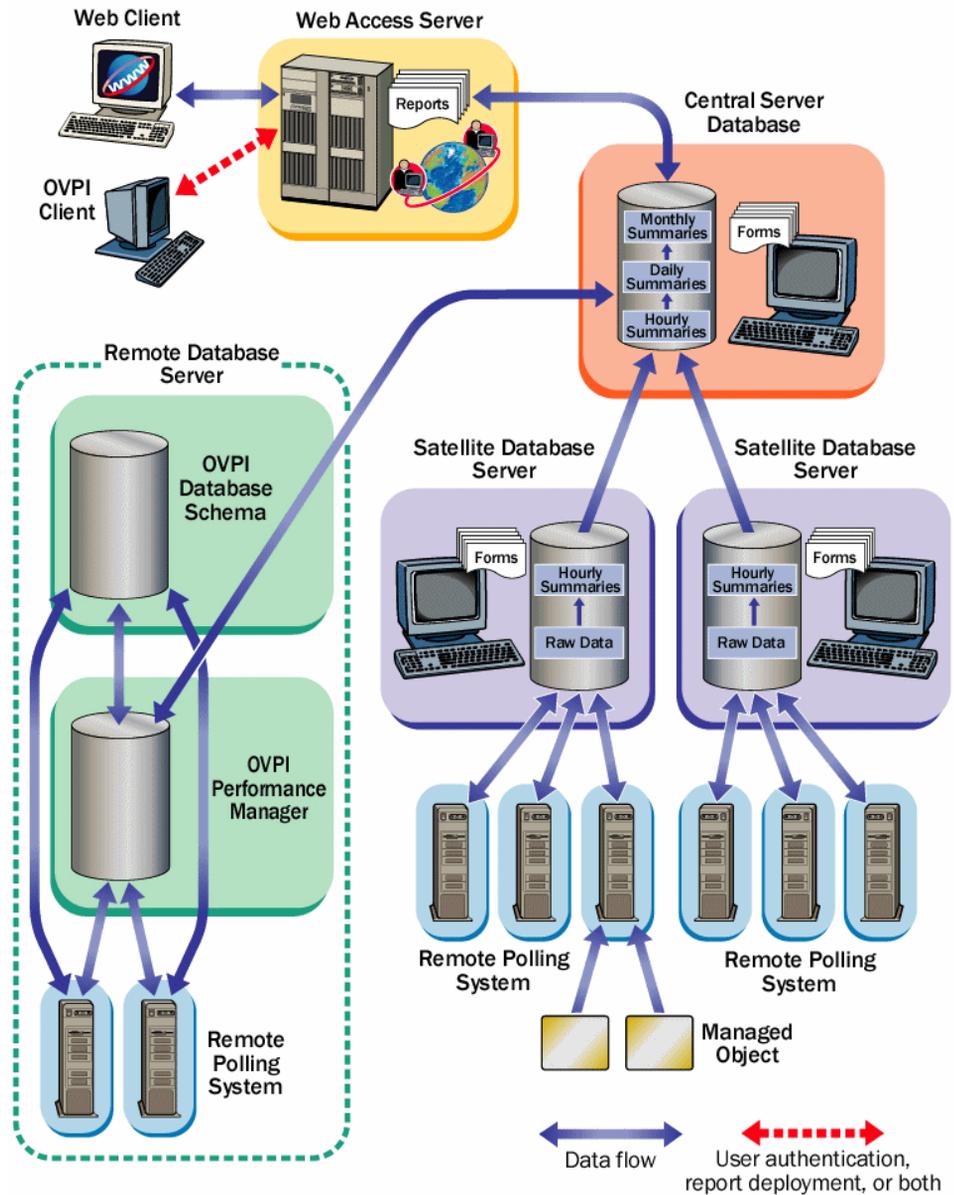
Data collection places a significant load on the network and is one of the few time-sensitive processes in OVPI. In a distributed environment, remote polling systems are usually located close to the target devices they poll to localize polling traffic and minimize delays. Each polling system polls multiple devices and communicates with its parent satellite database server, which is most likely regionally based.

Usually, there is only one Web Access Server in the distributed environment, and it is installed on a system dedicated to servicing incoming report requests from accessible web-based client workstations and OVPI client workstations.

The following figure shows an example of a simple distributed OVPI environment, where the central database server is performing all functions except web hosting and remote polling.



The following figure shows a more complex distributed OVPI environment that improves performance in a large, geographically-dispersed network. In this example, multiple satellite database servers serve individual regions.



Collected performance data is compiled locally and uploaded to the central database server.

Each satellite runs as a complete standalone system performing full data aggregation and reporting. In addition, each satellite copies some of its data to the central database server. This allows regional reports to be displayed at the satellite, while network-wide reporting is available on the central database server.

Choosing Between Standalone or Distributed Environments

If you are wondering why or when you might implement a distributed OVPI environment, this section can help you decide.

A distributed OVPI environment can improve performance if one of the following is true:

- You have a large network that is geographically spread out and you want various regions to have reporting exclusively for their areas.
- You have more managed objects to be processed than one polling system can handle—typically 20,000 objects for polling and summarization. This limitation is affected by many factors, including the polling interval (more time to poll increases the number of instances that can be polled), number of child collectors spawned (the more that run at once, the faster the system works), network latency, device latency, and so on.

Questions to Ask

Apart from the sharing of processing load, there may be geographical, organizational, or functional reasons for considering a distributed environment. The following questions can help you determine your needs.

- How many managed objects are there? Do I have enough processing power?

The number of objects on which OVPI needs to report has a direct effect on the number of systems required, perhaps ruling out the need for a distributed environment completely, or requiring a minimum number of each type of system. Your HP sales representative can help you determine your system requirements.

- Where are the target devices? How fast is my network management infrastructure?

The geographical spread of the target devices affects the need for remote polling systems. If data collection is done using SNMP, as is most common, installing remote pollers close to the devices can reduce the distance the packets must travel. This increases polling response times and improves data collection reliability and performance.

- Will reports be required at the satellite database servers? Who are the users and what are their needs?

If the network is large enough to warrant multiple satellite database servers, consider whether the satellites each have a subset of devices assigned to them that is relevant to some subset of your users.

For example, if your network is spread across several regions, it may make sense to use one satellite database server per region. Consider whether users located in that region prefer to look at reports specific to their region, and if so, whether access to the reporting system should be local. In this case, each satellite must perform the full data-processing cycle, and it must also have a Web Access Server installed on it. This will place a higher processing load on the satellite database server, but it could possibly reduce network traffic between regionally located users and a centrally located Web Access Server.

- Will near real time reports be required at the central database server? Who are the users and what are their needs?

Processing collected data to the hourly level at the satellite database server and then copying it to the central database server is the most efficient way to configure data aggregation and transfer.

The benefit is that it reduces both the processing load on the central database server and network traffic between the satellite and the central database server. However, it reduces the granularity of the reports available at the central database server. Some reports, such as near real time reports, rely on the most granular rate data for display. If the data is not present on the central database server, it may be necessary to remove those reports.

OVPI Components

OVPI components comprise the following.

OVPI Database

The OVPI database consists of the RDBMS and the OVPI database schema. To begin installing OVPI, you first create a **database server** for your OVPI operating environment. Creating a database server consists of the following:

- Installing an OVPI-supported RDBMS on your system, or upgrading an existing supported RDBMS to the version required by OVPI.

OVPI version 5.2 supports the RDBMS.

Installing the RDBMS creates an OVPI database instance—a named repository for the performance data that is collected, processed, and reported on by OVPI. The database instance is initially empty.

- Installing the OVPI database schema, which creates the tables that will contain performance data, as well as the indexes that determine data relationships. When you install the database schema, OVPI creates the tables and populates some of them immediately with data (for example, time period tables and informational tables about the database). OVPI also adds device files and tunes the OVPI database instance.

OVPI Performance Manager

OVPI Performance Manager, which is a different product from HP OpenView Performance Manager, provides tools for storing, processing, and reporting performance data that is collected. It aggregates, summarizes, and ages out data from the OVPI database. OVPI Performance Manager includes a full-function Management Console, which provides OVPI users with the tools to manage the OVPI environment. Also included is the OVPI Management Server, which is a web application that provides web services for OVPI clients.

You can install OVPI Performance Manager on multiple systems in your environment, but in each case the system onto which you install OVPI must be a database server or connect to an existing remote database server.

The most typical installation type is to install OVPI Performance Manager on the database server system. Because both the RDBMS and OVPI Performance Manager are CPU- and disk-intensive, it is best to install them on a system that is dedicated exclusively to them.

You could install the OVPI Performance Manager on a system that will access a database server remotely. This is beneficial if you want to maintain central administrative control over your databases and are using database farms, or for installations where database licensing is an issue (for example, you want to use an already purchased RDBMS). In this instance, you must set up the remote database to support OVPI before installing OVPI.

OVPI Web Access Server

Installing the OVPI Web Access Server on a system creates a host for an OVPI web site. This host provides authentication and configuration services, web-based reporting utilities, and user administration utilities through the OVPI client components. The OVPI Web Access Server requires significant memory and CPU resources and is usually not installed on a database server system, unless to provide regionalized reporting.

OVPI Clients

OVPI clients provide the interface between OVPI and its users for such functions as report building, viewing, and deployment, and administrative tasks. The OVPI clients are available through the OVPI graphical user interfaces. Most are also available as command line utilities.

OVPI clients are installed as a group, with or without other OVPI components, on any networked system that can connect to the OVPI Web Access Server.

OVPI clients give you the following functionality:

- **Report Builder:** Build and customize performance reports with multiple tables and graphs based on data from the OVPI database.
- **Report Viewer:** Interactively view, modify, save, and print performance reports.
- **Management Console:** Perform administrative tasks using the following components:

- Catalog Manager: Manage the OVPI Report and Link catalogs, based on data from the OVPI database.
- Database Tuner (*for Sybase systems only*): Set database configuration parameters that improve overall data throughput
- MIB Browser: Analyze, query, and troubleshoot SMI-compliant SNMP MIBs.
- SNMP Discovery: Determine whether a set of nodes is reachable from the OVPI system and whether or not those nodes support SNMP. The nodes discovered by SNMP Discovery are added to the OVPI node database.
- Type Discovery: Determine the device type of a discovered node; for example, router, hub, or switch.
- Package Manager: Install packages, deploy reports to the Web Access Server, run Type Discovery, and uninstall packages.
- Object Manager: View and change managed object properties on your system.
- System Manager: Add, modify, and delete references to OVPI installations on other systems.
- Group Manager: Create and manage polling groups.
- Polling Policy Manager: Manage polling policies, import and manage nodes, and manage polling groups.
- Table Manager: Monitor the database, view data and property tables, and set defaults for individual and global tables.

OVPI Client-Only Installation

You can install only the OVPI clients, independent of any other OVPI components. This is called a “client-only” install. A client-only install provides specific reporting and administrative capabilities to users who are working from their local workstations and remotely accessing the OVPI Web Access Server.

Be aware, however, that full Management Console functionality is not available in a client-only installation. The following components are *not* available from the Management Console Tools menu:

- Catalog Manager

- MIB Browser
- SNMP Discovery
- Type Discovery
- Package Manager
- Copy Policy Manager

In addition, users cannot register a new data table or property table, nor can they automatically add a collection to the database. To enable full Management Console functionality, you must install OVPI Performance Manager.

Remote Pollers

The process of collecting data from one or more nodes in the network and storing the data on an OVPI database server is termed polling. The OVPI polling function can handle about 20,000 managed objects—network devices or interfaces monitored for performance.

Software to handle the polling function is installed automatically with the OVPI Performance Manager, which automatically provides the ability to poll nodes directly from a database server.

For polling situations that exceed 20,000 managed objects, or for geographical reasons, you might decide to locate separate remote polling systems near target polled devices; for example, for a specified region or group of users.

In such cases, you must install the OVPI Remote Poller component on each remote polling system. The remote polling system is dedicated to the polling function. It does not have an installed OVPI database, and it does not perform any processing. It only collects and uploads performance data to a database server.

Each database server can support any number of remote polling systems.

OVPI Installation Overview

Installation and configuration of OVPI comprise the following major tasks:

- **Verify installation requirements**

Determine your hardware, software, and functional requirements before installing the RDBMS and OVPI (see [Introduction to OVPI Installation](#) on page 9).

To make sure that all prerequisite tasks are complete, see the [Installation Prerequisites Checklist](#) on page 36.

- **Install the Sybase RDBMS**

Complete the prerequisites tasks and install the RDBMS as explained in [Installing Sybase Adaptive Server Enterprise 15](#) on page 43.

- **Install OVPI components**

In a standalone environment, follow the instructions in [Chapter 4, Installing OVPI on a Standalone Server](#).

In a distributed environment, follow the instructions in [Chapter 5, Installing OVPI in a Distributed Environment](#)

Because performance reporting varies by implementation, installing report packs is part of the post-installation configuration process. Post-installation configuration is covered in detail in the *HP OpenView Performance Insight Administration Guide*.

- **Configure OVPI**

Following successful installation of OVPI 5.2, complete all the post-installation tasks in [Chapter 6, Post-Installation](#) and then start to configure OVPI. For detailed information about the configuration process, see the *HP OpenView Performance Insight Administration Guide*.

- **Upgrade the RDBMS**

OVPI 5.2 supports only Sybase version 15.0.1. If you are using an older version, you must upgrade. Upgrade instructions are in [Chapter 9, Upgrading to Sybase 15.0.1](#).

- **Upgrade OVPI**

If you have an older version of OVPI, you can upgrade to version 5.2. Upgrade instructions are in [Chapter 10, Upgrading to OVPI 5.2](#).

Typical Installation by System Role

After you determine the appropriate operating environment (standalone or distributed), you can install OVPI components accordingly.

The role a particular system serves in the environment—satellite database server, remote poller, web client, and so on—determines which OVPI components need to be installed on it. To help determine a system's role, you should understand the types of tasks it will perform.

Standalone Environment System Roles

A standalone system is a single system that performs all data processing tasks. The system serves all roles and requires all OVPI components to be installed. Because data collection is performed from the database server, the standalone system does not require a separate remote polling system.

Distributed Environment System Roles

In a distributed environment, systems perform specialized roles:

- **Remote polling system:** Performs data collection.
- **Satellite database server:** Performs the following processes:
 - Raw data to rate data processing
 - Rate data to hourly data summarization

Typically, the satellite database server does not run processing routines on collected data more frequently than hourly. It copies partially aggregated data to the central database server where aggregation is completed.

- **Central database server:** Receives partially processed data from one or more satellite servers and processes data from the hourly level to completion. It performs the daily, monthly, and forecasting summarization tasks.
- **Remote database server** (*optional*): Performs additional specialized roles.
- **Web Access Server:** Hosts the OVPI web site and handles reports requests and report viewing and building tasks from OVPI clients.

- **OVPI clients:** Multiple applications that let the user view reports, build reports, and perform numerous system management tasks.

The following table shows which OVPI components you would typically install for the type of environment and role.

System Role	RDBMS	OVPI Database Schema	OVPI Performance Manager	Web Access Server	OVPI Clients	Remote Poller
Standalone Environment						
Central Database Server	X	X	X (includes polling function)	X (includes OVPI Clients)	N/A	N/A
Distributed Environment						
Central Database Server	X	X	X	X (optional)	X (if no WAS)	
Satellite Database Server	X	X	X	X (optional)	X (optional)	
Remote Database Server	X	X				
Web Access Server				X (includes OVPI Clients)		
Remote Polling System						X
Client-Only						
OVPI Clients					X	

Supported OVPI Configurations

Operating System	RDBMS	OVPI Component
HP-UX 11.11 HP-UX 11.23 PA-RISC	Sybase Adaptive Server Enterprise 15	All
Solaris 9 and 10	Sybase Adaptive Server Enterprise 15	All
Red Hat Enterprise Linux AS 4.0 x86 (SP3)	Sybase Adaptive Server Enterprise 15	All
Windows 2003 Server x86 Standard Edition Windows 2003 Server x86 (Enterprise/Datacenter) (Windows 2003, 64-bit version is not supported)	Sybase Adaptive Server Enterprise 15	All
Windows XP	Not Supported	Clients only

Installation Media

The current version of OVPI includes the following installation media:

- OVPI 5.2 Installation DVD (includes RDBMS installation and documentation)

- Report Pack CD



OVPI does not support installation from DEPOT paths that contain spaces. For example, if you have a folder by the name “my space” in the following path: /my space/DVDROM, you cannot install or upgrade from this path.

2 Installation Prerequisites

HP strongly recommends that you read the *HP OpenView Performance Insight Release Notes* before you install. Release notes provide an overview of new features, bug fixes, last-minute changes made to OVPI, and a list of available Report Packs for the release.

Pre-Installation Tasks

The following tasks need to be completed in the sequence given before you can install the RDBMS or OVPI components.

Task 1: Update your operating system software

Install all required patches to your operating system software. Contact your HP sales representative for the most recent list of patches required.

1 Verify patches for release levels.

Make sure that your operating system is at the correct release level. You must install operating system patches before installing the RDBMS.

Windows Systems

- a From the Windows Explorer Help menu, select **About Windows**.
- b Find the service pack number on the Version line. In the following example, *xxxx* is the build number and *n* is the service pack number:

Version 5.0 (Build *xxxx*: Service Pack *n*)

Windows 2003 requires Service Pack 1.

HP-UX Systems

Type the following command:

```
/usr/sbin/swlist -l product | fgrep PH
```

Solaris Systems

Type the following command:

```
showrev -p
```

Required patches for Solaris are the following:

Solaris 10 Solaris 10 Recommended Patch Cluster, Sep/07/06

Solaris 9 Solaris 9 Recommended Patch Cluster, Oct/14/05

Red Hat Linux Systems

Type the following command:

```
rpm -q -a
```

If your system is not at the current patch level for the release, download and install the required patches before continuing.

- 2 Install HP-UX-specific patches.

HP-UX11.11:

GOLDAPPS11i B.11.11.0612.459 Applications Patches for HP-UX 11i v1,
December 2006

GOLDBASE11i B.11.11.0612.459 Base Patches for HP-UX 11i v1,
December 2006

HP-UX11.23 (PA):

QPKAPPS B.11.23.0703.059a Applications Quality Pack Bundle for
HP-UX 11i v2, March 2007

QPKBASE B.11.23.0703.059a Base Quality Pack Bundle for HP-UX
11i v2, March 2007

You can download the patch from <http://www1.itrc.hp.com/>

- 3 Install Red Hat Linux-specific patches.

Linux (RHEL4): Update 3

Task 2: Verify that patches are running for Java

OVPI includes Java 1.4.2.13, which will automatically load onto your system during OVPI installation. However, Java may not run properly unless you applied the patches required for your operating system.

You must install all operating system patches before you install the Sybase database or OVPI. For your convenience, the patches that were required and tested at the time this guide was printed are included. Contact your HP sales representative for the most recent list of patches required.

Viewing Installed Patches

To determine which patches are installed on your system, use the following commands:

HP-UX Systems:

```
/usr/sbin/swlist -l product | fgrep PH
```

Solaris Systems:

```
showrev -p
```

Windows Systems:

- a From the Windows Explorer Help menu, select **About Windows**.
- b Find the Service Pack number on the Version line. In the following example, *xxxx* is the build number and *n* is the service pack number:
Version 5.0 (Build *xxxx*: Service Pack *n*).

Required Java Patches

To locate the latest Java patches for your operating system, go to the following URLs:

HP-UX Systems: <http://www.hp.com/products1/unix/java/patches/index.html>

Solaris Systems: <http://java.sun.com/j2se/1.4/download.html> and find the Solaris OS Patches section

Windows Systems: <http://windowsupdate.microsoft.com>

URLs are subject to change without notice.

Task 3: (For HP-UX only) Install HP-UX Measurement Interface for 11i product

The new OVPI monitoring feature requires the HP-UX Measurement Interface for 11i product to be installed so that OVPI system status can be monitored properly. The HP-UX Measurement Interface for 11i package is available on media distributed with HP-UX Mission Critical Operating Environment (MC-OE) and the HP-UX Enterprise Operating Environment bundles. It can also be obtained from the HP-UX Application Release distribution media.

If `/opt/perf/lib/libnums.sl` exists, the required files are installed on your system.

HP-UX systems that have GlancePlus or OpenView Performance Agent installed will already have the required files needed by the OVPI monitoring feature, so no additional prerequisite product installation is required on these systems.

Task 4: Identify ports for network connectivity

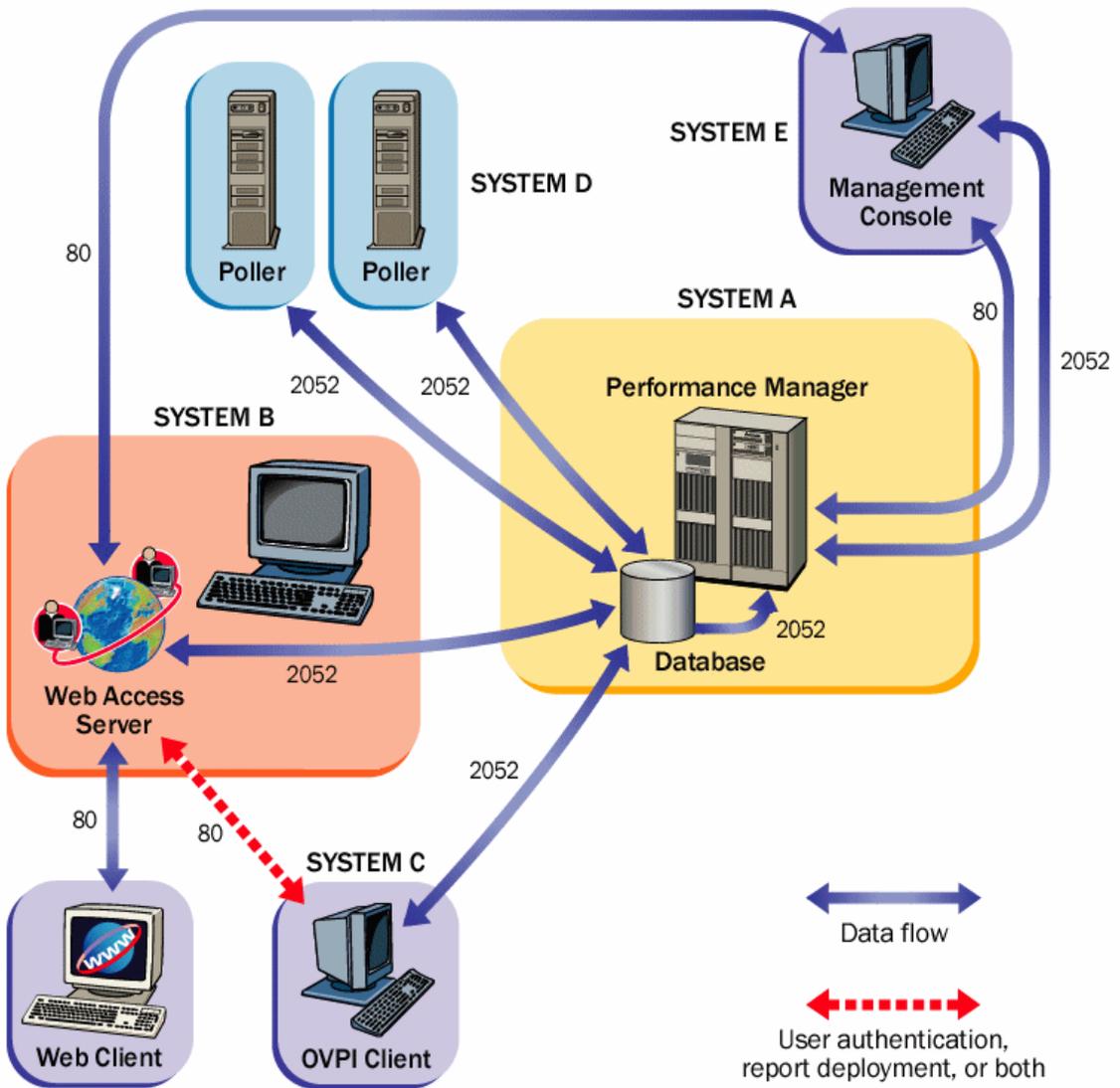
Ports establish connectivity between OVPI systems. OVPI uses the following default port numbers.

OVPI Component	Default Port Number
Sybase RDBMS	5000 (Windows systems) 2052 (UNIX Systems)
Web Access Server	80 (SSL not enabled)
(Includes the management server, which also uses port 80 by default. If any other web server is running on port 80, use a different port for OVPI; for example, port 8080.)	443 (SSL enabled)
Management Console	80



If you are using firewall software, you must open the OVPI ports in the firewall. For instructions, see your firewall documentation.

The following example shows an OVPI configuration using the default port numbers.



Polling and SNMP Connectivity

Any system that gathers data from the network requires connectivity through intermediate firewalls to reach the network devices. It is recommended that the remote poller system and polled devices be outside the firewall, and that the remote poller connects through the firewall to the database server. This reduces the number of connections through the firewall.

In situations where a satellite database server is controlling polling systems, you may need to create specialized polling policies to help divide the devices to be polled between polling systems. For information about creating polling policies, see the *HP OpenView Performance Insight Administration Guide*.

Client Connectivity

To view reports using a web browser, you must have HTTP connectivity between your systems and the Web Access Server.

To use the Report Viewer or Report Builder applications, you must have connectivity between the client system and the Web Access Server system and the database server on the appropriate ports. When installing clients, specify the same Web Access Server and port number that was specified on the Web Access Server reference page. For more information about installing the Web Access Server, see [Installing the Web Access Server](#) on page 138.

Task 5: Plan for web access

- 1 Verify that you are using the supported web browsers.

Web users must be able to connect to one of the following web browsers:

- Microsoft Internet Explorer 5.5 or later
- Mozilla Firefox 1.5 or later

- 2 Verify that Java scripting is enabled.

Your web browser must have Java scripting enabled. Otherwise, you will not be able to view the Navigation frame for the Web Access Server application.

To enable Java scripting, do one of the following, depending on the web browser:

Internet Explorer

- a From the browser's Tools menu, select **Internet Options**. The Internet Options dialog box opens.

- b Select the Security tab. Click **Internet** for the Web content zone, and then click **Custom Level**. The Security Settings dialog box opens.
- c Scroll down the list of settings and locate the Scripting settings. Select **Enable** under Active scripting.
- d Click **OK** in the Security Settings dialog box.
- e Click **OK** in the Internet Options dialog box.

Mozilla Firefox

- a From the browser's Tools menu, select **Options**.
The Options dialog box opens.
- b Select the **Content** tab and then select **Enable JavaScript** check box.
- c Click **OK** in the Options dialog box.

Task 6: Install the SNMP security pack for SNMPv3 nodes

If you plan to collect data from SNMPv3 nodes, you must install the SNMP Security Pack product, available from SNMP Research International, Inc. Go to the SNMP web site for information:

<http://www.snmp.com>

Install the following version, depending on your operating system:

- Windows Systems: Version 16.1.0.35
- UNIX Systems: Version 16.1.0.19

You must configure your SNMPv3 nodes following installation. For configuration details, see the *HP OpenView Performance Insight Administration Guide*.

Task 7: Integrate with Network Node Manager

- 1 Verify that you are running NNM version 7.5 or later.

If your system is already running NNM version 7.5, you can install OVPI on the system. OVPI and NNM will share components that enable the OVPI MIB Browser and Collection Wizard tools to function. These tools will not function with earlier versions of NNM.

HP recommends upgrading NNM to version 7.5 or later before installing OVPI.

 You cannot install OVPI with any NNM version prior to NNM 6.4.

2 Stop NNM processes before installing OVPI.

To avoid errors from occurring during installation, stop NNM processes before installing OVPI. Follow these steps.

Windows Systems

- a From the **Start** button on the Windows task bar, click **Programs**→**HP OpenView**→**Network Node Manager Admin**, and select **NNM Services - Stop**.
- b Verify that the NNM processes are stopped. From the **Start** button on the Windows task bar, click **Programs**→**HP OpenView**→**Network Node Manager Admin**, and select **NNM Services - Status**.
- c Close the Services window. Otherwise, the OVPI Services will fail to install.

UNIX Systems

- a At the command prompt, type:
ovstop -c
- b Verify that the NNM processes have stopped. At the command prompt, type:
ovstatus -c

Task 8: Stop Compaq Insight Manager services (HP Compaq systems only)

If you intend to install OVPI on a Compaq system, you must stop the Compaq Insight Manager services.

Task 9: (Windows systems only) Disable HP-proprietary memory management devices

If your environment includes Windows systems that are running HP-proprietary memory management services, you must disable those services by using the Services Manager to set those services to “disabled.” The services to disable include:

- HpComponent

- HPEventLog
- HPFpcSvc
- HpLerSvc
- HPSdnSvc

Task 10: (UNIX systems only) Verify that you are using supported desktops

OVPI supports the Common Desktop Environment (CDE). OVPI does not support OpenWindows.

Task 11: Plan for internationalization and localization

OVPI supports internationalization. You can install OVPI on any language version of the supported operating systems. Database support is internationalized for Sybase.

OVPI version 5.2 is provided in English only.

Install db3 Module (Red Hat Linux Systems Only)

If you intend to install OVPI client applications on a Red Hat Linux system, you must install the Linux system with the db3 module (rpm). The module is located on the Red Hat installation CD, but is not automatically installed. You must install it to use OVPI.

Installation Prerequisites Checklist

- ❑ You have read the Performance Insight Release Notes for this release.
- ❑ You have decided whether to use a standalone or distributed environment. See [Operating Environments](#) on page 9
- ❑ You have all required installation media. See [Installation Media](#) on page 24
- ❑ You are using a supported system configuration (operating system and RDBMS). See [Pre-Installation Tasks](#) on page 27
- ❑ You have identified which OVPI components to install on each system. See [Typical Installation by System Role](#) on page 22 and [Pre-Installation Tasks](#) on page 27
- ❑ You have installed the required patches for your operating system. See [Update your operating system software](#) on page 27
- ❑ You have identified port numbers for network and client connectivity. See [Identify ports for network connectivity](#) on page 30
- ❑ You have confirmed that your web clients are using a supported browser, and you have enabled Java scripting for the browser. See [Plan for web access](#) on page 32
- ❑ If required, you have installed the SNMP Security Pack. See [Install the SNMP security pack for SNMPv3 nodes](#) on page 33
- ❑ If you are planning to install OVPI on a system that is running NNM, you have verified that you are using the correct version of NNM and you have stopped NNM processes. See [Integrate with Network Node Manager](#) on page 33
- ❑ If you are installing on a Red Hat Linux system, you have installed with the db3 module. See [Install Red Hat Linux-specific patches.](#) on page 28

- If you are installing on a Compaq system, you have stopped any Compaq Insight Manager services. See [Stop Compaq Insight Manager services \(HP Compaq systems only\)](#) on page 34
- If you are running Windows with HP proprietary memory management services, you have disabled those services. See [\(Windows systems only\) Disable HP-proprietary memory management devices](#) on page 34
- If you are a UNIX user, you are using a supported desktop. See [\(UNIX systems only\) Verify that you are using supported desktops](#) on page 35

Memory and Storage Requirements

The following table shows the minimum storage requirements for OVPI components, based on disk, by operating system.

Component	HP-UX PA-RISC	Solaris	Windows	Linux
OVPI Database Schema	600 MB	2100 MB	2500 MB	2000 MB
OVPI Performance Manager	425 MB	400 MB	340 MB	400 MB
Web Access Server	255 MB	420 MB	340 MB	400 MB
OVPI Clients	180 MB	340MB	1700 MB	320MB
Remote Poller	265 MB	200 MB	130 MB	200 MB
Full Standalone	900 MB	2200 MB	2100 MB	2100 MB

The following table shows the minimum and recommended memory requirements for OVPI. The requirements are based on original system size recommendations, and may change based on polling requirements.

Component	Minimum	Recommended
OVPI Database Schema	512 MB	1 GB
OVPI Performance Manager (includes OVPI Database Schema)	2 GB	4 GB
Management Server	256 MB	512 MB
OVPI Clients	256 MB each ^a	512 MB

Component	Minimum	Recommended
Command-Line Utilities	256 MB ^b	512 MB
Remote Poller	256 MB	512 MB
Full Standalone Install	4 GB	8 GB

- a. If you plan to have more than one component running at the same time, the memory requirements are additive. For example, if you run the Management Console, Report Builder, and the Web Access Server simultaneously on one system, 768 MB is the minimum memory requirement. In a standalone installation, the Web Access Server and Management Server use the same Java Virtual Memory (JVM). The minimum, therefore, is still 256 MB.
- b. Command line utilities use far less memory.

The OVPI Database Schema is set to between 50 to 60 percent of total memory. The Management Server, OVPI clients, Command-Line Utilities, and Remote Poller are installed at minimum (1 to 2 GB of memory). The remaining processing space is used by the OVPI Performance Manager. Make sure that this space is large enough to handle polling and data loading.

To change the amount of memory for Report Builder, Report Viewer, or Web Access Server after installation, change the Java settings using the Web Access Server. See the *HP OpenView Performance Insight Administration Guide* for details.

Installation Parameter Values

OVPI provides default values for many installation parameters. If you want to change any of the defaults, you can avoid delays during installation by identifying the changes ahead of time.

If you change the default path settings for Windows systems, make sure you do not add spaces in the directory path.

The following table lists parameter defaults you might decide to change. Unless noted, parameters apply to both standalone and distributed installations.

Parameter and Description	Default Value Windows Systems	Default Value UNIX Systems
Destination Folder The directory where the OVPI software will be installed.	C:\OVPI	/usr/ovpi
Sybase Host Name System on which Sybase is installed		
Sybase TCP/IP Port Number The TCP/IP port number that Sybase uses to communicate with clients and servers on other systems.	5000	2052
Sybase Server Name (DSQUERY) Name of the Sybase SQL Server where the client applications will look for information by default.	<LOCAL_HOST> In this instance, LOCAL_HOST (Windows) or LOCALHOST (UNIX) is the name of the Sybase host.	<LOCAL_HOST>
Sybase Directory The directory into which you installed Sybase.	C:\Sybase	/usr/Sybase
Database Devices The directory where OVPI will create the database device files (if raw devices are used, device files are not created)	Sybase_directory\d bfiles 50%	Sybase_directory/ dbfiles 50%
Database Size The size of the database device file.	800 MB	800 MB

Parameter and Description	Default Value Windows Systems	Default Value UNIX Systems
Transaction Log and Percent of Database	Sybase_directory\dbfiles 50%	Sybase_directory/dbfiles 50%
Temporary Space and Percent of Database	Sybase_directory\dbfiles (Windows) 50%	Sybase_directory/dbfiles (UNIX) 50%
Cache Folder The cache directory used to store collected data before it is placed in the database.	\$DPIPE_HOME \collect	\$DPIPE_HOME /collect
Username The name for the Web Access Server administrator.	trendadm	trendadm
HTTP Port The port number used for HTTP communication with the Web Access Server.	80	80
Web Access Server Host (used in distributed installs only)		
Web Access Server Port (Used in distributed installs only) The HTTP port number used by the Web Access Server.	80	80

Parameter and Description	Default Value Windows Systems	Default Value UNIX Systems
Remote Management Server Host (used in distributed installs only) The name of the database host system.	blank	blank
Remote Management Server Port (used in distributed installs only) The HTTP port number used by the database host system.	80	80

3 Installing Sybase Adaptive Server Enterprise 15

You must install the Sybase RDBMS, and it must be running, before you can install OVPI.

Sybase Installation Prerequisites

- Review the Sybase documentation.
Before installing Sybase, review the Sybase installation guides, the release notes, and the readme files. Sybase documents are available online at <http://www.sybase.com/support/manuals/>
- Consult with a database administrator.
If possible, consult with an Sybase database administrator before installing Sybase. A database administrator can help you design and set up the Sybase database for optimal use by OVPI.
- Follow general performance guidelines.
Whenever possible adhere to the following guidelines when installing Sybase for use with OVPI. The intent of these recommendations is to reduce disk contention. In general, the more disk heads moving at the same time, the faster your database can operate.
 - Install Sybase and OVPI on separate physical devices.
 - If possible, put the data datafile on separate devices from the index datafiles.
 - If possible, put the tempdb on a separate device.
 - If possible, put the dpipe_log on a separate device.
- Make sure that you have the following patches for HP-UX 11.11 for both 32-bit and 64-bit versions:

— PHKL_27688

— PHCO_31878

Installed bundle patches for HP-UX:

— Patch Level Description

— Bundle B.11.11 Patch bundle

— Bundle11i B.11.11.0306.1 Required patch bundle

— FEATURE11-11 B.11.11.0209.5 Feature enablement patches

— GOLDAPPS11i B.11.11.0412.5 Gold applications patches

— GOLDBASE11i B.11.11.0412.5 Gold base patches

— HWEEnable11i B.11.11.0412.5 Hardware enablement patches

- Review database hardware requirements.

The following table shows minimum system recommendations based on database size.

Database Size^a	CPU	Sybase Minimum^b and Recommended Memory	Drives 10 KB RPM or Higher^c	Drive Usage
2 GB	1	1 GB/2 GB	4	1 for OS and swap 1 for temporary database 1 for log file 1 for database
5 GB	1	1 GB/2 GB	4	1 for OS and swap 1 for temporary database 1 for log file 1 for database
10 GB	2	1 GB/4 GB	6	1 for OS and swap 1 for temporary database 1 for log file 3 for database with RAID 0

Database Size^a	CPU	Sybase Minimum^b and Recommended Memory	Drives 10 KB RPM or Higher^c	Drive Usage
20 GB	2	1 GB/4 GB	6	1 for OS and swap 1 for temporary database 1 for log file 3 for database with RAID 0
40 GB	4	1 GB/4 GB	8	1 for OS and swap 1 for temporary database 1 for log file 5 for database with RAID 0
80 GB	4	1 GB/4 GB	8	1 for OS and swap 1 for temporary database 1 for log file 5 for database with RAID 0

- a. You must have enough database disk space for twice the amount of data that you expect to store. The listed number of drives is the minimum number for acceptable performance and is based on the assumption that each drive is 36 GB. Using higher capacity drives (for example, 72 MB) does not reduce the number of drives recommended. If you are running four or more report packs simultaneously, HP recommends that you install the Web Access Server on a separate system.
- b. Minimum memory for the RDBMS means that you will be able to install OVPI and run with a limited number of objects. Performance may be unacceptable under load.
- c. This does not include mirror drives if used.

The system load assumed in the table is defined by the number of managed objects OVPI is collecting and reporting on. A *managed object* is one instance of data (for example, one frame relay PVC or one router interface).

A medium-sized standalone system (database size of 10 or 20 GB, based on the recommendations in the table) can poll up to 20,000 managed objects every 15 minutes.

A distributed configuration typically comprises a separate reporting server (Web Access Server), satellite servers, and a central server. The satellite server performs hourly roll-ups and transfers the hourly data to the central server. A large-sized satellite server can poll up to 30,000 interfaces at 15-minute intervals. A central server that is not polling can support four satellite servers without specific tuning.



For large systems, a second disk controller is recommended.

- Determine storage and memory requirements for Sybase.

The following are the minimum storage requirements.

Component	HP-UX	Solaris	Windows	Red Hat Linux
Executables	367 MB	358 MB	99 MB	850 MB
Master Database	50 MB	50 MB	30 MB	50 MB
Stored Procedures Database	60 MB	60 MB	60 MB	120 MB
Installation Total	477 MB	468 MB	189 MB	1020 MB

For instructions to increase the size of the Sybase database after OVPI is installed, see the *Performance Insight Administration Guide*.

When determining the amount of memory Sybase requires to run, use a scaled algorithm that is based on the system total memory.

The following table shows a scaled algorithm for running Sybase that is based on the system total memory.

System Physical Memory	Percentage Required by Sybase
256 MB or less	50% physical memory
257 MB or greater	60% physical memory

On HP-UX systems, the total database memory will not exceed 1 GB due to the limitations of the operating system.

- Determine Device Size and Addressable Memory Limits

This section provides the device size limits for Sybase Adaptive Server Enterprise 15 when supporting devices greater than 2 gigabytes (GB) in size.

Using a seek utility, Sybase is able to locate and support the largest device size allowable by the host system.

The following table lists the maximum device size and how it varies by operating system.

Operating System	Sybase 15.0.1	
	File	Raw
HP-UX	32 GB	32 GB
Solaris	2 GB	32 GB
Windows	4 GB	N/A

The following table lists addressable memory limits by operating system.

Operating System	Sybase 15.0.1
HP-UX	1 GB
Solaris	4 GB
Windows	2 GB
Red Hat Linux	4 GB

Prerequisite for UNIX Systems Only

If you plan to install Sybase on a UNIX system, you must do the following before beginning the installation:

- Reconfigure the kernel and then reboot the system. You can use the SAM utility or the command line.
- Determine whether you want to install the OVPI database on a UNIX file system or on a raw partition. If you opt for raw partition, you must set up the raw partitions before you install the Sybase database. For more information, see [Using a Raw Partition or a UNIX File System for Sybase Installation](#) on page 53.

If Sybase is already installed on your system, you can begin to install OVPI. For details, see [Chapter 4, Installing OVPI on a Standalone Server](#).

Using the SAM Utility to Reconfigure the Kernel on HP-UX

Follow these steps:

- 1 Log on and start the SAM utility.
 - a Log on as root.
 - b Invoke the SAM utility (typically, from the /usr/sbin directory). The System Administration Manager window opens.
 - c Double-click the **Kernel Configuration** icon. The SAM Areas: Kernel Configuration area appears in the System Administration Manager window.
 - d Double-click the **Configurable Parameters** icon. The Kernel Configuration window opens.
- 2 Configure the maximum number of threads per process.
 - a Select **max_thread_proc** from the list of configurable parameters. The max_thread_proc entry is highlighted.
 - b From the Action menu, select **Modify Configurable Parameter**. The Modify Configurable Parameter window opens.
 - c Select **Specify New Formula/Value** and type the following value in the Formula/Value box:

1024

If you are unable to set `max_thread_proc` to 1024, you may need to adjust other dependent kernel parameters; for example `maxusers`.

- d Click **OK** to close the Modify Configurable Parameter window. The Kernel Configuration window opens.
- 3 Configure the maximum number of concurrent users.
 - a Select **maxusers** from the list of configurable parameters. The `maxusers` entry is highlighted.
 - b From the Action menu, select **Modify Configurable Parameter**. The Modify Configurable Parameter window opens.
 - c Select **Specify New Formula/Value** and type the following value in the Formula/Value box:

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- d Click **OK** to close the Modify Configurable Parameter window. The Kernel Configuration window opens.
- 4 Configure the maximum amount of RAM for Sybase.
 - a Select **shmmax** from the list of configurable parameters. The `shmmax` entry is highlighted.
 - b From the Action menu, select **Modify Configurable Parameter**. The Modify Configurable Parameter window opens.
 - c Select **Specify New Formula/Value**, and then enter the following value in the Formula/Value box:

1073741824

- d This defines the maximum amount of your system's RAM that can be dedicated to Sybase. The value you entered (1073741824) is the total number of bytes in 1 GB. You can adjust this to a maximum of 2147483648 (2 GB) depending on your HP-UX patch installation.
- e Click **OK** to close the Modify Configurable Parameter window. The Kernel Configuration window opens.

- 5 Enable asynchronous disk I/O.
 - ▶ HP strongly recommends that you enable asynchronous disk I/O, whether or not you intend to use it. If you install the OVPI database on a raw partition, the database engine can use asynchronous I/O. The steps that follow describe how to do this.
 - a From the SAM Kernel Configuration menu, select **Drivers**.
 - b Select **asyncdsk** from the list of drivers. The asyncdsk driver is highlighted.
 - c From the Action menu, choose **Add Driver to Kernel**. The pending state for asyncdsk should be set to **In**.
- 6 Build the kernel, reboot, and install.
 - a From the Action menu, choose **Process New Kernel** and then reboot the system.
 - b Click **Yes** to rebuild the kernel and to reboot the system.
 - c Because the user ID of the user booting Adaptive Server and Backup Server must be the owner of the /dev/async device file, type the following commands as root at the UNIX command prompt:

```
/etc/mknod /dev/async c 101 4  
chmod 0660 /dev/async
```
 - d Continue with the installation process by installing Sybase. For more information, see [Installing Sybase 15.0.1 on UNIX Systems](#) on page 72.

Using the Command Line to Reconfigure the Kernel on HP-UX

Follow these steps:

- 1 Log on to the system and extract the system file.
 - a Log on as root.
 - b To extract the system file from the running kernel, type the following command:

```
cd /stand/build  
/usr/sbin/sysadm/system_prep -v -ssystem
```

2 Configure parameters.

Edit the “Tunable Parameters” section of the system file by adding or modifying the parameters `shmmax`, `maxusers`, and `max_thread_proc`. For example, you might use the following settings:

```
shmmax 1073741824
```

This defines the maximum amount of your system’s RAM that can be dedicated to Sybase. The value you entered (1073741824) is the total number of bytes in 1 GB. You can adjust this to a maximum of 2147483648 (2 GB) depending on your HP-UX patch installation. (For more information, contact Support.

```
maxusers 124
max_thread_proc 1024
```

If you are unable to set `max_thread_proc` to 1024, you may need to adjust other dependent kernel parameters; for example, `maxusers`.

3 Enable asynchronous I/O.

a Find the “Drivers/Subsystems” section of the file.



HP strongly recommends that you enable asynchronous disk I/O, whether or not you intend to use it. If you install the OVPI database on a raw partition, the database engine can use asynchronous I/O. Use the following steps to enable asynchronous I/O.

b Add the following line:

```
asyncdsk
```

4 Build the kernel.

a Build a system kernel in the current directory using the following command:

```
/usr/sbin/mk_kernel -ssystem
```

b Enter the following command sequence to complete the process:

```
mv /stand/system /stand/system.prev
mv /stand/vmunix /stand/vmunix.prev
mv /stand/build/system /stand/system
mv /stand/build/vmunix_test /stand/vmunix
```

5 Reboot and install.

a Reboot your system.

- b Because the user ID of the user booting Adaptive Server and Backup Server must be the owner of the /dev/async device file, type the following commands as root at the UNIX command prompt:

```
/etc/mknod /dev/async c 101 4  
chmod 0660 /dev/async
```

- c Continue with the installation process by installing Sybase. For more information, see [Installing Sybase 15.0.1 on UNIX Systems](#) on page 72.

Reconfiguring the Kernel on Solaris

Follow these steps:

- 1 Edit the Sybase system file.

- a Open the /etc/system file using a text editor
- b Modify the following command to reflect the total number of bytes (*nnnnnnnnnn*) that will be allocated to Sybase:

```
set shmsys:shminfo_shmmax=nnnnnnnnnn
```

For information about how much memory you need to allocate for Sybase, see [page 46](#). The total number of bytes must meet or exceed the requirements listed.

For Solaris 8 and 9, you can specify up to 4294967295 (4 GB) whether or not you physically have this amount of memory available.

One gigabyte equals 1024^3 . The total number of bytes is, therefore, calculated as follows: number of gigabytes x 1024^3 . For example, the calculation for 4 GB would be $4 \times 1024^3 = 4294967295$.

- c Modify the maxusers parameter. By default, this parameter is set to the number of megabytes of physical memory or 1024, whichever is lower. You cannot set it higher than 2048.

- 2 Reboot your system.

- a Reboot your system.
- b Because the user ID of the user booting Adaptive Server and Backup Server must be the owner of the /dev/async device file, type the following commands as root at the UNIX command prompt:

```
/etc/mknod /dev/async c 101 4
```

```
chmod 0660 /dev/async
```

- c Continue with the installation process by installing Sybase. For more information, see [Installing Sybase 15.0.1 on UNIX Systems](#) on page 72.

Reconfiguring the Kernel on Red Hat Linux

Follow these steps:

- 1 Edit the Sybase system file.
 - a Open the `/etc/rc.d/rc.local` file using a text editor.
 - b Modify the following command to reflect the total number of bytes (`nnnnnnnnnn`) that will be allocated to Sybase.

```
set kernel.shmmax=nnnnnnnnnn
```

The default value for operating system shared memory is usually 32 MB. For Red Hat Linux systems, HP recommends 1 GB (1000000000 bytes) as the minimum requirement. For information about how much memory you need to allocate for Sybase, see [page 46](#).

- 2 Reboot your system.
 - a Reboot your system.
 - b Because the user ID of the user booting Adaptive Server and Backup Server must be the owner of the `/dev/async` device file, type the following commands as root at the UNIX command prompt:

```
/etc/mknod /dev/async c 101 4  
chmod 0660 /dev/async
```

- c Continue with the installation process by installing Sybase. For more information, see [Installing Sybase 15.0.1 on UNIX Systems](#) on page 72.

Using a Raw Partition or a UNIX File System for Sybase Installation

This section describes the differences between installing the OVPI Sybase database on a raw partition (S0 and Veritas raw partitions are supported) or on a UNIX file system.

When you install OVPI, the database is installed on a UNIX file system by default.

- **Raw Partition**

If you use a raw partition, the effect is to partition or isolate your database from any other information that may be stored on that server. Such partitioning has important performance implications. The advantages are the following:

- All of the stored data resides in a single location. This can increase database efficiency and processing speed.
- In the event of a system crash, a partitioned database can be somewhat easier to recover.
- It is also much more difficult for an outside influence to interfere with the database.

The disadvantages are:

- Some OVPI users find that the performance advantages of installing Sybase on a raw partition are not significant for their systems. The installation process is more involved and may be unnecessary.
- Installing Sybase on a raw partition requires more of your server's available disk space.
- You cannot use standard UNIX backup utilities to back up a raw partition. You must use Sybase's backup and archive utilities to make a copy of the database.

- **UNIX File System**

If you use the UNIX file system, your database may be surrounded by and interspersed with other applications. The advantages are:

- Installing Sybase on the UNIX file system is a simpler process that you accomplish as part of the OVPI installation.
- Sybase can still operate at 80%+ of peak efficiency. Some database administration tasks are also easier to perform.
- Since Sybase installation automatically reserves disk space for its own use, there is often no need to create a physical partition.

The disadvantages are:

- Sybase components on your hard disk are dispersed. This means that Sybase will sometimes need to search several different locations on the disk to find the information it needs. This can slow down Sybase processing somewhat.
- Since Sybase is not physically isolated from other applications, it is marginally more susceptible to outside influences.

In the final analysis, HP cannot make a blanket recommendation about how you should install Sybase. This issue needs to be decided on a case-by-case basis, preferably in consultation with an HP systems engineer.

Comparing a Raw Partition to a UNIX File System

A raw partition on a UNIX system is a part of the disk where no file system has been created. Even though the Sybase Adaptive Server can use UNIX files for database devices, Sybase recommends using raw partitions instead.

Most UNIX systems use a buffer cache for disk I/O. Writes to disk are stored in the buffer and may not be written to disk immediately. If the Sybase Adaptive Server completes a transaction and sends the result to a UNIX file, the transaction is considered complete, even though the UNIX buffer cache may not have been written to disk. If the system crashes before this buffer cache is written, you lose data. In this situation, the Sybase Adaptive Server has no way of knowing that the write to disk eventually failed, and the transaction is not rolled back. In addition, some UNIX operating systems do partial writes. In that case, if the system crashes, the Sybase device is corrupted.

Using raw partitions for Sybase devices allows the Sybase Adaptive Server to process its own I/O requests without having to go through the UNIX buffering scheme. Using this method, Sybase Adaptive Server knows exactly what portions of a transaction completed or failed in the event of a system crash.

Setting Up a Raw Partition

You must set up the raw partitions needed before you install the OVPI database, the transaction log, and tempdb (if you decide to install tempdb on a raw partition).

Sybase executables, libraries, installation, and configuration files reside on a file system. The OVPI executables, reports, demo database, and documentation also reside on a file system.

You can set up as many raw partitions as necessary to accommodate the size of your OVPI database, transaction log, and tempdb.

Suggested guidelines for setting up the database are as follows:

- Place tempdb on a raw partition or on a file system. HP recommends that you place tempdb on a file system. The size of tempdb should be 50% of the size of the OVPI database.
- Place the OVPI database on either a raw partition or file system.
- Place the transaction log the same way you place the OVPI database; that is, place it on either a raw partition or on a file system. If you place the transaction log on a raw partition, place it on a different disk spindle from the OVPI database. The size of the transaction log should be 50% of the size of the OVPI database.



Do not install any Sybase database components on a raw partition that contains the partition map. Typically, this is found on the first sector of the first cylinder.

If using raw partitions on Sybase, install the following raw partition one off patch from Sybase, which is in the product DVD: \$CDROM/Data/sybase/sybase_one_off_patch. In this instance, \$CDROM is the CD mount point.

Setting Up a Raw Partition on Solaris

Partitions c0t3d0s3 and c0t3d0s4 could represent the following:

- c0t3d0s3: OVPI Database (10 GB)
- c0t3d0s4: tempdb (5 GB)

You can repeat the following procedure, as needed, substituting partition name and size for the raw partitions that you could be using to comprise either the OVPI database, the transaction log, or tempdb (if you are placing tempdb on a raw partition).

Using the Command Line Interface

- 1 Execute the format command.
 - a At the command prompt, type the following:

format

- b Select the number of the disk on which the raw partition will be created. A list of command options appears.
 - 2 Assign partition slices.
 - a Type the following command:
partition
A list of command options appears.
 - b Type the following command:
print
A table of the slices on the selected disk appears.
 - c Select the number of an available slice.
 - d Enter a valid tag (for example, **home**) when prompted.
 - e Keep the default permissions (**wm**).
 - f Enter the starting cylinder by adding 1 to the highest ending cylinder other than backup.
 - g Enter the partition size (for example, **20g** for 20 GB; **35m** for 35 MB).
 - h Repeat [step b](#) through [step g](#) for each partition that you want to create on this disk.
 - 3 Label the disk.
 - a After the last partition is assigned, type the following command:
label
 - b Type **Y** at the prompt.
 - c Type **quit** at the prompt.
 - d Type the following command (for the second partition in the example used):
label
 - e Type **Y** at the prompt.
 - f Type **quit** at the prompt.
 - 4 Create a raw partition on another disk, if necessary.
Repeat [Task 1](#) through [Task 3](#) to create a raw partition on another disk.

- 5 Change the character block.

For each disk, you must also change the character block. To change the group

ID (using the example partitions), type the following

```
chgrp sybase /dev/dsk/c0t3d0s3
chgrp sybase /dev/rdisk/c0t3d0s3
chgrp -h sybase /dev/dsk/c0t3d0s3
chgrp -h sybase /dev/rdisk/c0t3d0s3
chgrp sybase /dev/dsk/c0t3d0s4
chgrp sybase /dev/rdisk/c0t3d0s4
chgrp -h sybase /dev/dsk/c0t3d0s4
chgrp -h sybase /dev/rdisk/c0t3d0s4
```

Setting Up a Raw Partition on HP-UX

Partitions lv01 and lv02 could represent the following:

- lv01: OVPI Database (10 GB)
- lv02: tempdb (5 GB)

You can repeat the following procedure, as needed, substituting partition name and size for the raw partitions which you could be using to comprise either the OVPI database, the transaction log, or tempdb (if you are placing tempdb on a raw partition).

You can set up raw partitions using either the SAM utility or the command line.

Using the SAM Utility

- 1 Log on and start the SAM utility.
 - a Log on as root.
 - b Invoke the SAM utility (typically from the /usr/sbin directory). The System Administration Manager window opens.
 - c Double-click the **Disks and File Systems** icon. The Disk and File Systems dialog box opens.
- 2 Decide whether to create a volume group.

If you do *not* need to create a volume group:

- a Double-click the **Logical Volume** icon.
- b From the Actions menu, select **Create**. The Create New Logical Volumes window opens.
- c Click **Select Volume Group**.
- d From the pop-up box, select the volume group.
- e Click **OK**.
- f Click **Define New Logical Volume(s)**.

If you **do** need to create a volume group:

- a Double-click the **Volume Groups** icon.

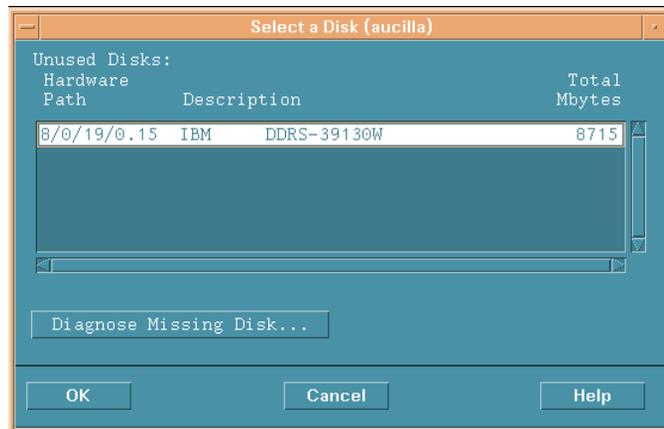


The interface shown in the following procedure will differ slightly, depending on the version of HP-UX you are using.

The Scanning the Hardware message appears in the Disks and File Systems dialog box, and then the following window opens. (In this example, an existing volume group is listed.)

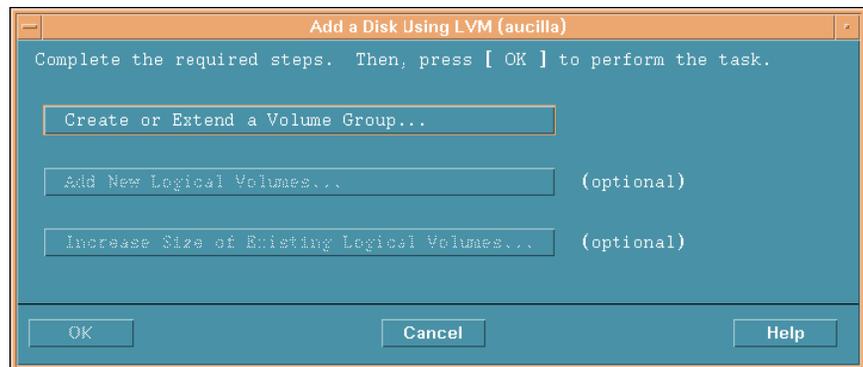
File List View Options Actions Help				
Volume Groups				0 of 1 selected
Name	Mbytes Available	Physical Volumes	Logical Volumes	
vg00	296 of 4092	1	9	

- b Select **Actions**, **Create**, or **Extend**. The Select a Disk dialog box opens.

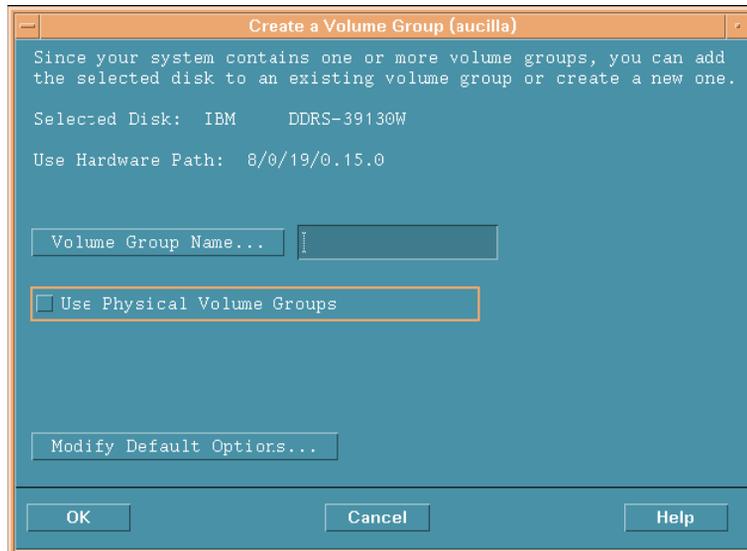


This window identifies the disk's hardware path, the disk's location on the SCSI chain, and total disk capacity in MB.

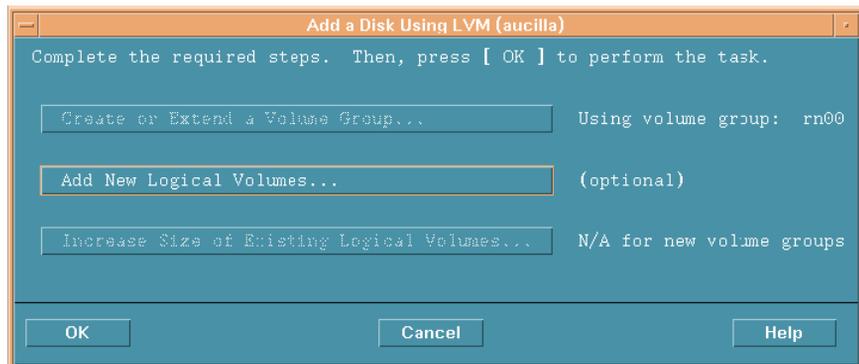
- c Click **OK**. The Add a Disk using LVM dialog box opens. (LVM is the Logical Volume Manager).



- d Click **Create or Extend a Volume Group**. The Create a Volume Group dialog box opens.



- e Type the name of the volume group in the Volume Group Name box (in this example rn00).
- f Click **OK**. The Add a Disk Using LVM dialog box opens.



- g Select the **Add New Logical Volumes** button. The Create New Logical Volumes dialog box opens.

 Do not click the **OK** button during this procedure. This will start the physical volume creation task, which is an unrelated procedure.

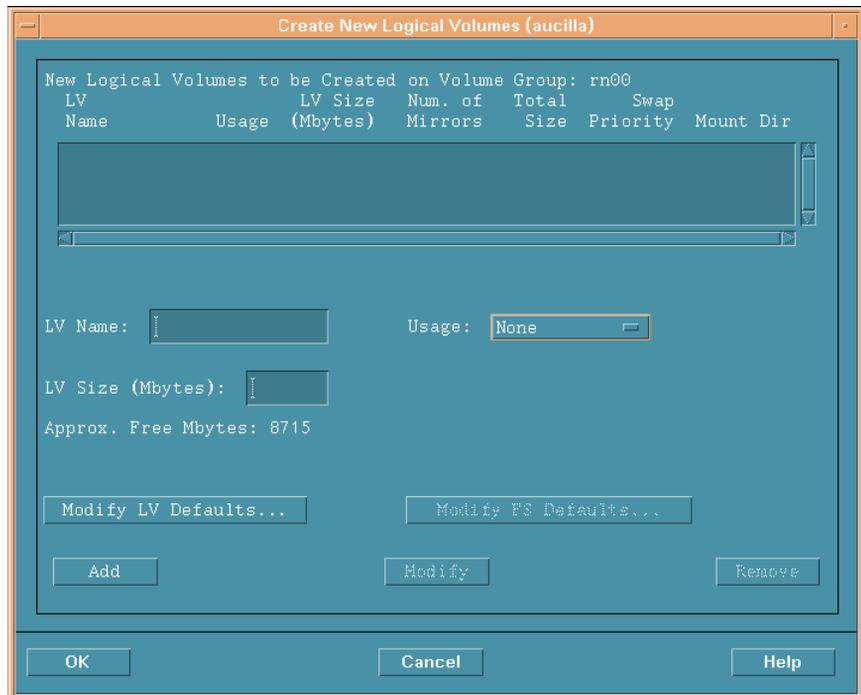
3 Create a new logical volume.

a In the LV Name box, type the name of the logical volume; **lv01** in this example.

b In the LV Size (Mbytes) box, type the size of the logical volume; **10240** in this example.

 The physical extent size for the volume group must be a multiple of 4. If you enter a value in the LV Size (Mbytes) box that is not a multiple of 4, a message appears to notify you that the system will round the value up to the nearest multiple of 4. Click **OK** to dismiss the message and continue.

- c Select **None** from the Usage list.

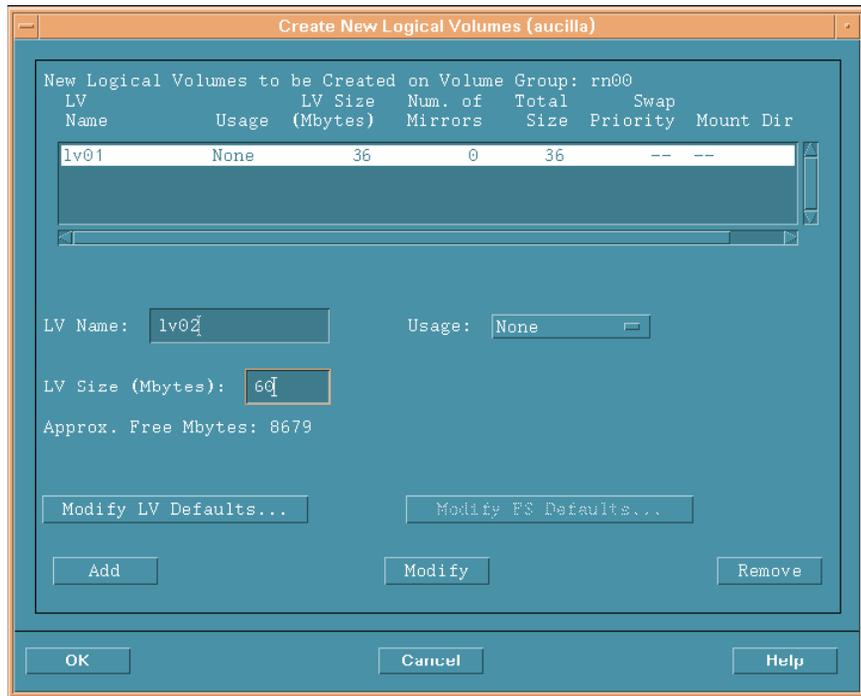


- d Click **Add**. The parameters appear in the dialog box.

The Create New Logical Volumes dialog box reopens with the newly created logical volume listed.

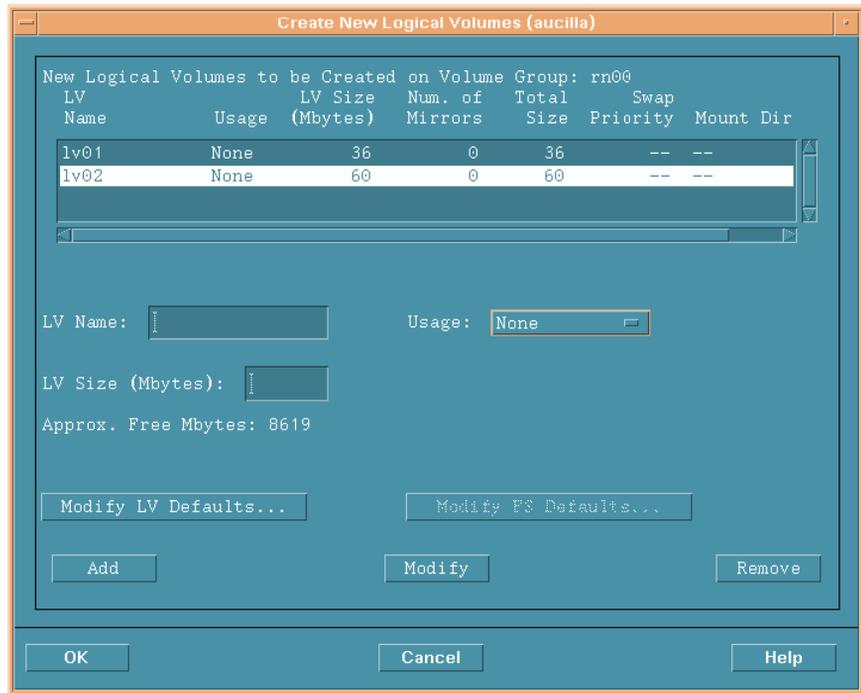
- e In the LV Name box, type the name of the logical volume; **lv02** in this example.

- f In the LV Size (Mbytes) box, type the size of the logical volume; **5120** in this example. The Create New Logical Volumes dialog box appears as follows:



- g Ensure that the Usage box is set to **None**, and then click **Add**.

The two logical volumes that were created in this procedure are listed.



- h Repeat [step e](#) through [step g](#) for each raw partition. Adjust the name and size for each partition.

All of the logical volumes you create during the actual procedure will be listed.

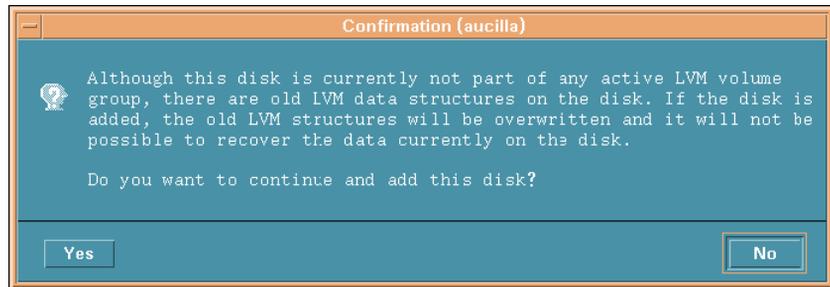
- i Click **OK**.

The Add a Disk Using LVM dialog box reopens.

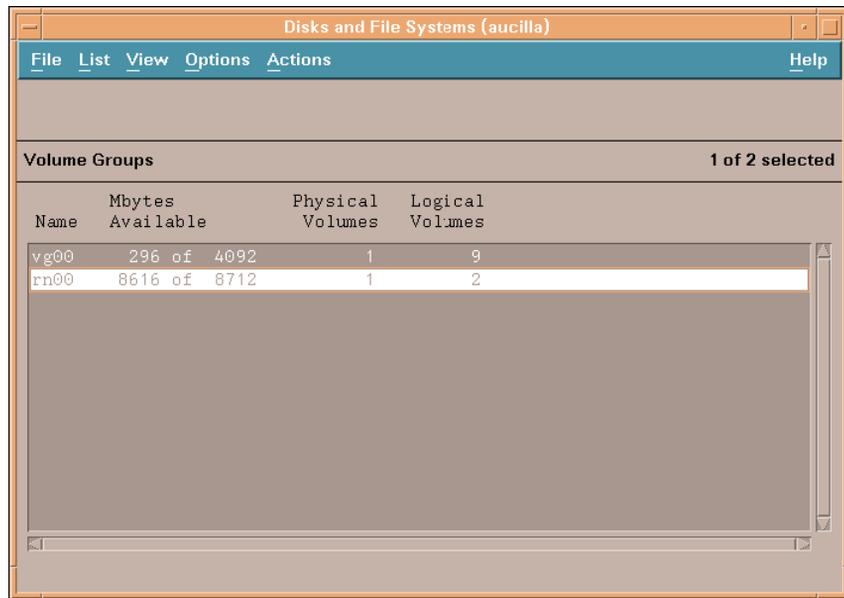
- 4 Add the logical volumes.

- a Click **OK** to add the additional logical volumes.

- b If the following confirmation dialog box opens, click **Yes** to continue the creation of the new logical volume process.



The Disks and File Systems dialog box opens. The newly created logical volumes are listed.



Using the Command Line

- 1 Log on.
 - a Log on as root.

- b Before creating a logical volume, run the `ioscan` command to determine the disks attached to the system and their device file names:

```
ioscan -f -n
```

2 Initialize each disk.

- a Initialize each disk as an LVM disk by using the `pvcreate` command. For example, enter:

```
pvcreate /dev/rdisk/c0t15d0
```



Using the `pvcreate` command results in the loss of all data currently on the physical volume, and you use the character device file for the disk. Once a disk is initialized, it is called a physical volume.

- b Create a directory for the volume group; for example:

```
mkdir /dev/rn00
```

- c Create a device file named `group` in the above directory using the `mknod` command. The basic syntax is:

```
mknod /dev/rn00/group c 64 0x010000
```

The “c” following the device file name specifies that that group is a character device file. The 64 is the major number for the group device file. It will always be 64. The 0x010000 (0x020000, and so on) is the major number for the group file in hexadecimal. Each particular 01 (02 and so on) must be a unique number across all volume groups.

Use the `pvdisplay` command to get information about your drive; for example:

```
pvdisplay /dev/dsk/c0t15d0
```

3 Create a volume group.

Create the volume group specifying each physical volume to be included using the `vgcreate` command; for example:

```
vgcreate /dev/rn00 /dev/dsk/c0t15d0
```

The following messages appear as a result of this command:

```
Increased the number of physical extents per physical volume  
to 2178
```

Volume group "dev/rn00" has been successfully created

4 Create a logical volume.

After you create the volume group, create a logical volume using the `lvcreate` command; for example:

```
lvcreate /dev/rn00
```

When LVM creates the logical volume, it creates the block and character device files and places them in the `/dev/rn00/lvol1` directory.

The following message appears as a result of this command:

```
/dev/rn00/lvol1 has been successfully created with character device "/dev/rn00/rlvol1".
```

5 Repeat [Task 2](#) through [Task 4](#) for each raw partition to be created.

6 Allocate disk capacity.

The following commands illustrate how to allocate (extend) disk capacity for the specific `lvol`.

For the OVPI database:

```
lvextend -L 36 /dev/rn00/lvol1
```

For the Temporary Database:

```
lvextend -L 60 /dev/rn00/lvol2
```



Repeat the entire procedure as needed, substituting partition name and size for the raw partitions that you could be using to comprise either the OVPI database, the transaction log, or tempdb (if you are placing tempdb on a raw partition).

Sybase Installation Parameter Values

Required

You must adjust the operating system shared memory parameter as follows:

- HPUX

Set shared memory to 2147483648(2GB). Use the System Administration Manager (SAM).

To optimize asynchronous I/O and to prevent the paging of shared memory, you must grant MLOCK permissions before you install Adaptive Server.

To grant MLOCK permissions to a group, enter:

```
/etc/privgrp add mlock <group name>
```

or:

```
/etc/setprivgrp <group name> MLOCK
```

- Solaris

To adjust the shared memory value of the operating system, add the following line to the operating system configuration file `/etc/system`:

```
set shmsys:shminfo_shmmax = 2147483648
```

- Linux

Use the `sysctl(8)` method to check and adjust the operating system shared memory parameter.

To check the current shared memory size, enter:

```
# /sbin/sysctl kernel.shmmax
```

To adjust the shared memory size:

```
# /sbin/sysctl -w kernel.shmmax=2147483648
```

To guarantee that this value is applied every time the system is started, add the above line to your `/etc/rc.d/rc.local` file. On SuSE systems, the file is `/etc/init.d/boot.local`.

On Linux RHEL Update 3.0 and greater, Adaptive Server version 15.0 running on multiple engines requires the security feature Exec-Shield to be disabled.

To disable Exec-Shield:

— Add the following lines in `/etc/sysctl.conf`:

```
kernel.exec-shield=0
kernel.exec-shield-randomize=0
```

— As SU, enter the following for the action to take effect:

```
/sbin/sysctl -P
```

For additional information, see the Red Hat web site:

http://www.redhat.com/f/pdf/rhel/WHP0006US_Execshield.pdf

Optional

The parameters listed in the following table are the defaults you can change if you choose to. Unless noted, parameters apply to both standalone and distributed installs.

Parameter and Description	Default Value Windows Systems	Default Value UNIX Systems
Sybase Directory The directory into which you install Sybase	C:\Sybase	/usr/Sybase
Sybase Host Name System on which Sybase is installed		
Sybase Server Name (DSQUERY) The Sybase server name	<HOST_NAME_SYBASE> This is the name of your Sybase server.	<HOST_NAME_SYBASE> This is the name of your Sybase server.
Sybase TCP/IP Port Number The TCP/IP port number that Sybase uses to communicate with clients and servers on other systems	5000	2052

Parameter and Description	Default Value Windows Systems	Default Value UNIX Systems
Database Devices The directory where OVPI will create the database device files (if raw devices are used, device files are not created)	<i>Sybase_directory</i> \dbfiles 50%	<i>Sybase_directory</i> /dbfiles 50%
Database Size The size of the database device file	800 MB	800 MB
Transaction Log and Percent of Database	<i>Sybase_directory</i> \dbfiles 50%	<i>Sybase_directory</i> /dbfiles 50%
Temporary Space and Percent of Database	<i>Sybase_directory</i> \dbfiles (Windows) 50%	<i>Sybase_directory</i> /dbfiles (UNIX) 50%

Installing Sybase 15.0.1 on UNIX Systems

Perform the following tasks in the order given.

Task 1: Log on and start the setup program

- a Log on to the local system as root.
- b Insert the OVPI Installation CD in the CD-ROM drive.

UNIX systems only

Mount the CD using the instructions provided in the following table.

Operating System	Command
Solaris	<p>The CD should mount automatically when you insert it in the CD-ROM drive, opening the File Manager window. If not, as root, type the following:</p> <pre>mkdir /cdrom mount -r /dev/dsk/cd_devicename /cdrom</pre> <p>In this instance, <i>cd_devicename</i> is the name of the CD-ROM device.</p>
HP-UX	<p>Use the SAM utility to mount the CD-ROM, <i>or</i> type the following commands:</p> <pre>mkdir /cdrom mount /dev/dsk/cd_devicename /cdrom</pre> <p>In this instance, <i>cd_devicename</i> is the name of the CD-ROM device.</p>
Red Hat Linux	<p>The CD should mount automatically when you insert it in the CD-ROM drive, opening the File Manager window. If not, as root, type the following:</p> <pre>mount -r /dev/cdrom <mount_directory></pre> <p>In this instance, <i>mount_directory</i> is the directory where contents of the CD-ROM are stored.</p>

Solaris Systems only

- To display the `cd_label`, type the command:

```
ls -l /cdrom
```

- To change the directory, type the command:

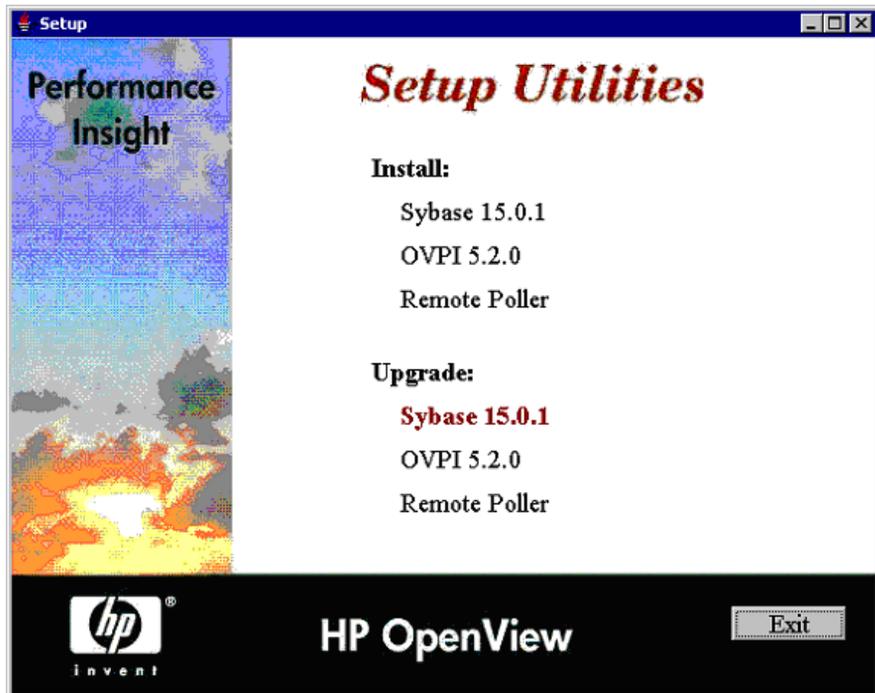
```
cd /cdrom/cd_label
```

In this instance, *cd_label* identifies the CD name.

- c Start the Installation Program by locating the setup program and typing the command:

```
./setup
```

The Setup window opens.



- d Select **Sybase 15.0.1** from the Install section of the window.
- e Read the Welcome window and click **Next** to continue. The Sybase Settings window opens.

Task 2: Specify the information needed to configure Sybase

- a Accept the default values or type new values for the following parameters:
 - **Installation path:** Accept the default directory (/usr/Sybase) or specify the directory to which the Sybase software will be installed. The destination directory can be an NFS mounted directory, a UNIX soft link, a UNIX hard link drive, or a Windows mapped drive.
 - Accept the default destination directory, or identify a different directory. The pathname cannot contain any spaces.
 - If the destination directory does not already exist, the Installation Program creates it.

- If the destination directory does exist and contains data, a message warns you that the directory is not empty.
- If the destination directory is located on a file system that the Installation Program cannot access, a message warns you. You cannot continue the installation until you supply a valid destination.
- **Server Name (DSQUERY):** Type the name of the Sybase SQL server.

The Sybase SQL server is where the client applications will look for information by default. The default server name is the host name of the system.

 Make sure that you enter the Sybase SQL server's name in uppercase and that it is a valid server name identifier. Server names cannot be more than 31 characters. The first character must be alphabetic. Characters following the first character can include letters, numbers, or an underscore. You cannot use embedded spaces or hyphens.

- **TCP/IP Port Number:** Type the port number for the Sybase server.

The default port number is 2052. Sybase uses assigned TCP ports to communicate with Sybase clients and servers on other systems. It knows how to find them by the combined IP address of the remote system and the TCP Port of the application it needs on that system. This information is stored in the interfaces file in the Sybase directory. Sybase uses only one TCP port. It can be any port numbered higher than 1024 that is not already used by another application. The installation wizard will use the port number you enter here for Sybase.

If you change the TCP Port, check the `/etc/services` file to make sure that no other application is using your port number or the one after it.

- b If necessary, click **Advanced** to display the Advanced OVPI Configuration window. Use the window to do the following:

- Modify the general parameters (General tab)

The General tab contains a parameter for changing the location of the Sybase error.log file.

Create or modify the Sybase operating system account (User tab)

Identify an operating system account and group named sybase whose purpose is to preserve the environment in which OVPI will run.

The window prompts you for different information depending on whether the operating system and group account already exists. Verify the following two actions.

If the operating system account and group do not exist, select the Create a New User Account option and type the following information:

- **User Name:** name for the user account.
- **Group Name:** name for the group account.
- **Description:** textual description about the user and group account.

If the operating system account and group do exist, you can use the existing user account or opt to recreate the account.

— Modify master device settings (Master Device tab)

Use the window to provide information about the devices. The options are:

- **Device Name:** type the name of the master device
- **Device File:** type the location and name of the device file.
- **Device Size (MB):** specify the size in MB.

— Modify procedures device settings (Procedures Device tab)

Use the window to provide information about the procedure devices. The options are:

- **Device Name:** type the name of the procedures device
- **Device File:** type the location and name of the device file.
- **Device Size (MB):** specify the size in MB.

c Click **Apply** and click **OK** to return to the Sybase Settings window.

d Click **Next**.

If the installation program detects either of the following conditions, it will display a message:

- An existing database: If you continue, the installation will overwrite your current database. Click **Yes** to overwrite the existing database and proceed with the installation.
- Insufficient disk space: If the system has insufficient disk space, the installation will most likely fail. Click **OK** to dismiss the message, and click **Cancel** in the Selection Summary window. Free up the necessary disk space and restart the installation.

7 Review the installation information and install.

In the Summary window, review the installation selections.

- a If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Selection Summary window.
- b Click **Install** to continue. The Installation Progress window opens.

8 Finish the installation

In the Installation Progress window you can view the status of the installation as it occurs. After the installation process is completed, information about whether the installation was successful is displayed.

- If the Sybase installation completed successfully, click **Done**.
- If the Sybase installation was unsuccessful:
 - Click **Details** at the bottom of the Installation Progress window for additional information.
 - Contact Support (see [Support](#) on page 4)

Installing Sybase 15.0.1 on Windows Systems

You must install Sybase on the system that will operate as the OVPI Server.

When you installed the Windows operating system, the process created the paging file at the recommended size (approximately 1.5 to 2 times the amount of RAM on your system), assuming that your hard disk had enough space. Sybase Adaptive Server requires the Windows virtual-memory paging file to be at or above its recommended size. Otherwise, the Adaptive Server fails to start and gives no indication as to what caused the problem. For more information about the paging file and how to change its size, see your Windows operating system documentation.

- 1 Log on and start the Setup program
 - a Log on to the local system using the Administrator account.
 - b Insert the OVPI Installation CD in the CD-ROM drive. Inserting the OVPI Installation CD should automatically start the setup program. If not, from the top level folder on the CD, double-click setup.exe. The Setup window opens.
 - c Click **Sybase 15** to install Sybase Adaptive Server.
 - d Read the Welcome window and click **Next** to continue. The Sybase Settings window opens.
- 2 Specify the information needed to configure Sybase.
 - a Accept the default values or type new values for the following parameters:

Installation path: Accept the default directory (C:\Sybase) or specify the directory to which the Sybase software will be installed.

 - Accept the default destination directory, or identify a different directory. The pathname cannot contain any spaces.
 - If the destination directory does not already exist, the Installation Program creates it.
 - If the destination directory does exist and contains data, a message warns you that the directory is not empty.

- If the destination directory is located on a file system that the Installation Program cannot access, a message warns you. You cannot continue the installation until you supply a valid destination.

Server Name (DSQUERY): Type the name of the Sybase SQL server.

The Sybase SQL server is where the client applications will look for information by default. The default server name is *<hostname>..*

- ▶ Make sure that you enter the Sybase SQL server's name in uppercase and that it is a valid server name identifier. Server names cannot be more than 31 characters. The first character must be alphabetic. Characters following the first character can include letters, numbers, or an underscore. You cannot use embedded spaces or hyphens.

TCP/IP Port Number: Type the port number for the Sybase server.

The default port number is 5000. Sybase uses assigned TCP ports to communicate with Sybase clients and servers on other systems. It knows how to find them by the combined IP address of the remote system and the TCP Port of the application it needs on that system. This information is stored in the interfaces file in the Sybase directory. Sybase uses only one TCP port. It can be any port numbered higher than 1024 that is not already used by another application. The installation wizard will use the port number you enter here for Sybase.

If you change the TCP Port, check the `install_dir\System32\Drivers\Etc\services.txt` file to make sure that no other application is using your port number or the one after it.

- b If necessary, click **Advanced** to display the Advanced OVPI Configuration window. Use the window to do the following:
 - Modify the general parameters with the General tab. It contains a parameter for changing the location of the Sybase error.log file.
 - Modify master device settings with the Master Device tab. The options are:
 - **Device Name:** Type the name of the master device.
 - **Device File:** Type the location and name of the device file.

- **Device Size (MB):** Specify the size in MB.
- Modify procedures device settings with the Procedures Device tab. The options are:
 - **Device Name:** Type the name of the procedures device.
 - **Device File:** Type the location and name of the device file.
 - **Device Size (MB):** Specify the size in MB.
- c Click **Apply** and click **OK** to return to the Sybase Settings window.
- d Click **Next**.

If the installation program detects either of the following conditions, it will display a message:

- **An existing database:** If you continue, the installation will overwrite your current database. Click **Yes** to overwrite the existing database and proceed with the installation.
 - **Insufficient disk space:** If the system has insufficient disk space, the installation will most likely fail. Click **OK** to dismiss the message, and click **Cancel** in the Selection Summary window. Free up the necessary disk space and restart the installation.
- 3 In the Summary window, review the installation selections and install.
 - a If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Selection Summary window.
 - b Click **Install** to continue. The Installation Progress window opens.
 - 4 Finish the installation

In the Installation Progress window you can view the status of the installation as it occurs. After the installation process is completed, information about whether the installation was successful is displayed.

- If the Sybase installation completed successfully, click **Done**.
- If the Sybase installation was unsuccessful:
 - Click **Details** at the bottom of the Installation Progress window for additional information.
 - Contact Support (see [Support](#) on page 4).

Post-Installation

When you have successfully installed Sybase, do the following:

- 1 Verify that Sybase is running on your system by typing the following at the command line:

```
ps -ef | grep -i sybase
```

- 2 Make Sybase the owner of the /dev/async directory by typing the following command as root user:

```
chown sybase /dev/async
```

- 3 Set a Sybase sa password (optional) by logging in to isql as the “sa” user with a null password. Specify a new password, represented by `<sa_password>`:

```
isql -Usa -P  
1> sp_password NULL, <sa_password>  
2> go
```

Starting and Stopping Sybase

Starting Sybase

After you install Sybase successfully, it should automatically be running on your system. If it is not, you must manually start it *before* you can install OVPI.

If Sybase is *not* running, enter *one* of the following commands:

- Solaris
`/etc/init.d/Sybase start`
- HP-UX
`/sbin/init.d/Sybase start`
- Red Hat Linux
`/etc/init.d/Sybase start`
- Windows
 - a From the Control Panel window, double-click the **Administrative Tools** icon. The Administrative Tools windows opens.
 - b Double-click the **Services** icon. The Services window opens.
 - c Select Sybase SQLServer_*server*, where *server* is the name of your Sybase SQL Server.
 - d If the service is not started, right-click the service name, and then select **Start** from the shortcut menu.Close the Services window.

Stopping Sybase

If you ever need to shut down Sybase, type the following commands:

```
isql -Usa -P <sa_password> -S<DSQUERY>  
1>shutdown  
2>go
```

<sa_password> is needed only if you set a Sybase sa password.

Troubleshooting a Sybase Installation Failure

Use the error.log file in the Sybase installation directory to determine the cause of an installation failure. Sybase writes messages to this file each time the system is booted and each time a Sybase error occurs. The name of the error log file is as follows:

- UNIX

```
$SYBASE/$SYBASE_ASE/install/servername_SYBASE.log
```

or

```
$SYBASE/$SYBASE_ASE/install/error.log
```

- Windows

```
$SYBASE/install/errorlog
```

After you identify the cause, consult the Sybase documentation.

4 Installing OVPI on a Standalone Server

Start the OVPI Installation Program

The OVPI installation program contains options for installing the OVPI components and remote pollers. To upgrade the database, see [Chapter 9, Upgrading to Sybase 15.0.1](#). To upgrade OVPI and the remote pollers, see [Chapter 10, Upgrading to OVPI 5.2](#).

Follow these steps:

- 1 Log on to the local system.

Windows Systems

Log on using the Administrator account.

UNIX Systems

Log on as root.

- 2 Insert the OVPI Installation CD in the CD-ROM drive.

UNIX Systems

Mount the CD using the following instructions.

Operating System	Command
Solaris	<p>The CD should mount automatically when you insert it in the CD-ROM drive, opening the File Manager window. If not, as root, type the following:</p> <pre>mkdir /cdrom mount -r /dev/dsk/cd_devicename /cdrom</pre> <p>In this instance, <i>cd_devicename</i> is the name of the CD-ROM device.</p>
HP-UX	<p>Use the SAM utility to mount the CD-ROM, <i>or</i> type the following commands:</p> <pre>mkdir /cdrom mount /dev/dsk/cd_devicename /cdrom</pre> <p>In this instance, <i>cd_devicename</i> is the name of the CD-ROM device.</p>
Red Hat Linux	<p>The CD should mount automatically when you insert it in the CD-ROM drive, opening the File Manager window. If not, as root, type the following:</p> <pre>mount -r /dev/cdrom <mount_directory></pre> <p>In this instance, <i>mount_directory</i> is the directory where contents of the CD-ROM are stored.</p>

Solaris Systems

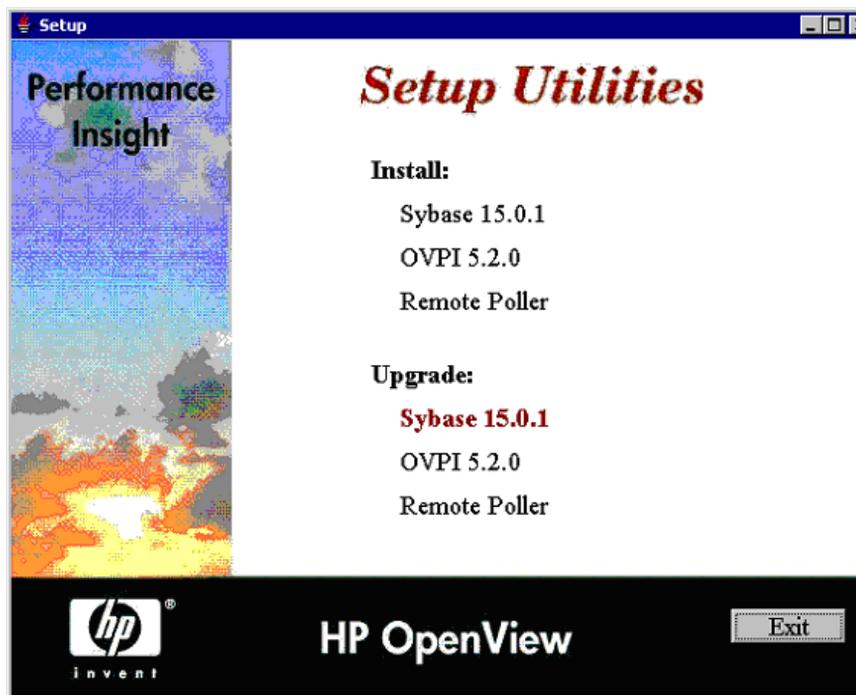
- a Display the *cd_label* by typing the command **ls -l /cdrom**
- b Change directory by typing the command **cd /cdrom/cd_label**

In this instance, *cd_label* identifies the CD name.

- 3 Start the installation program:

Windows Systems

Insert the OVPI Installation CD. The setup program should start automatically. If it does not, from the top level folder on the CD, double-click setup.exe. The Setup Utilities window opens.



If the window does not display correctly, change the text size of the Windows font:

- From the Control Panel window, double-click the **Display** icon.
- Select the Settings tab, and then click **Advanced**.
- Select the General tab, and then select **Small Fonts** from the Font Size list.

UNIX Systems

Locate the setup program and start it by typing the command:

```
./setup
```

The Setup Utilities window opens.

To continue installing OVPI in a standalone environment, proceed to [Next Steps](#) on page 89.

To install OVPI in a distributed environment, go to [Chapter 5, Installing OVPI in a Distributed Environment](#).

Next Steps

When you install OVPI in a standalone environment, you install *all* OVPI components on one system.

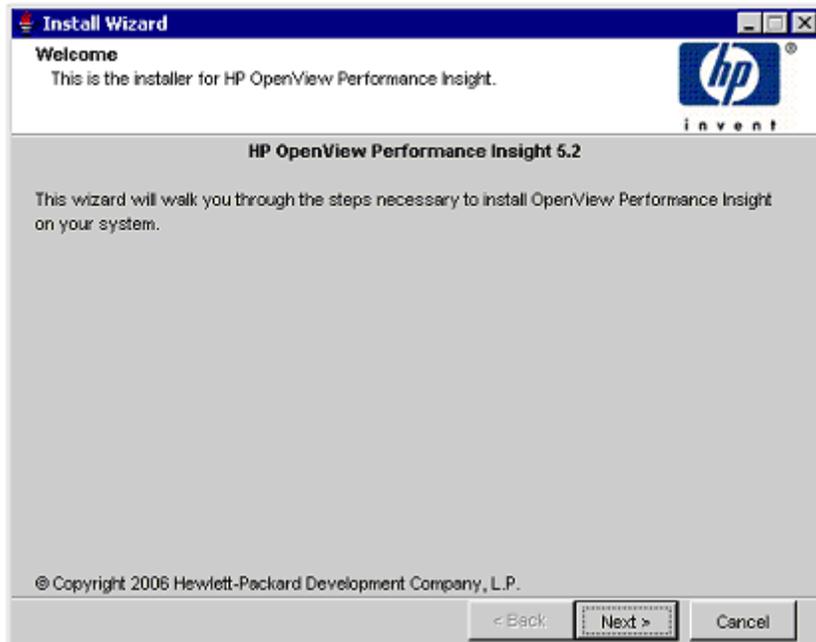
With few exceptions, the steps for installing OVPI are the same for Windows and UNIX systems. Differences are noted within the instructions.



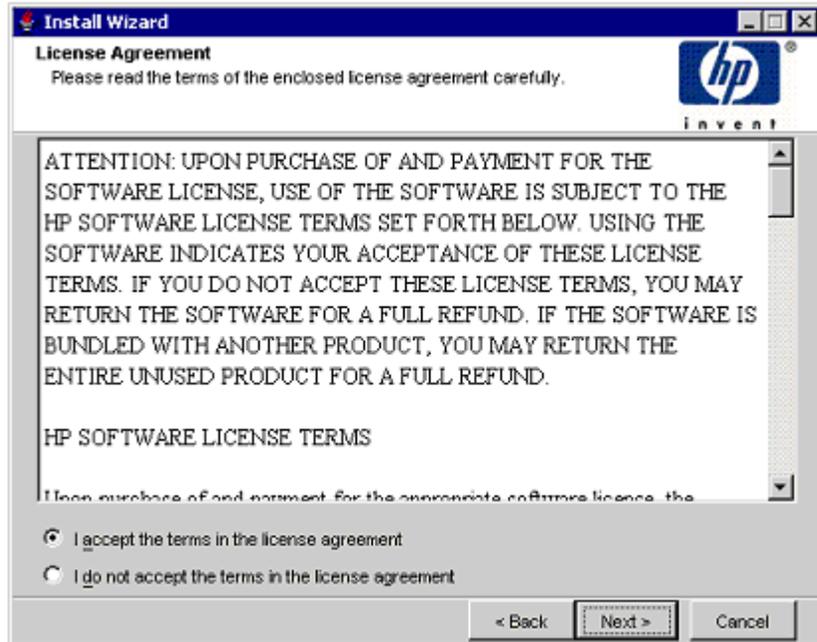
If you plan to install using a remote Sybase database, follow the instructions in [Chapter 5, Installing OVPI in a Distributed Environment](#)

Task 1: Start the OVPI installation program

- 1 If you did not start the OVPI installation program, start it now. The Setup window opens.
- 2 Select **OVPI 5.2.0** from the Install section of the window. The Welcome window opens.



- 3 Read the Welcome window and click **Next** to continue. The License Agreement window opens.

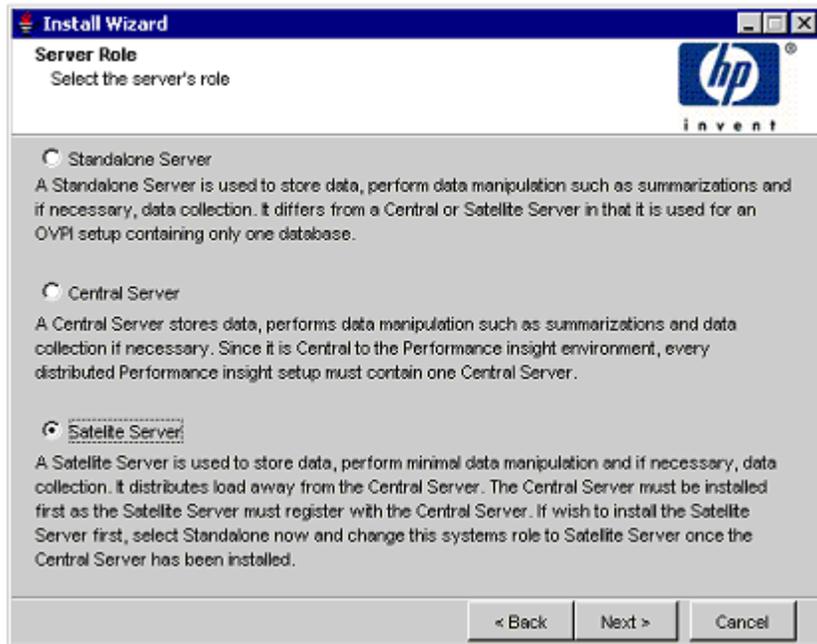


- 4 Accept the license agreement and click **Next** to continue. You must accept the license agreement to proceed. If you click **Cancel**, you will be prompted to confirm your rejection of the license agreement and installation ends. The Component Selection window opens.



Task 2: Select *all* the OVPI components to install

- 1 In the Component Selection window, select *all* OVPI components to install. All components are required for a standalone installation. Click **Next** to continue. The Server Role window opens.



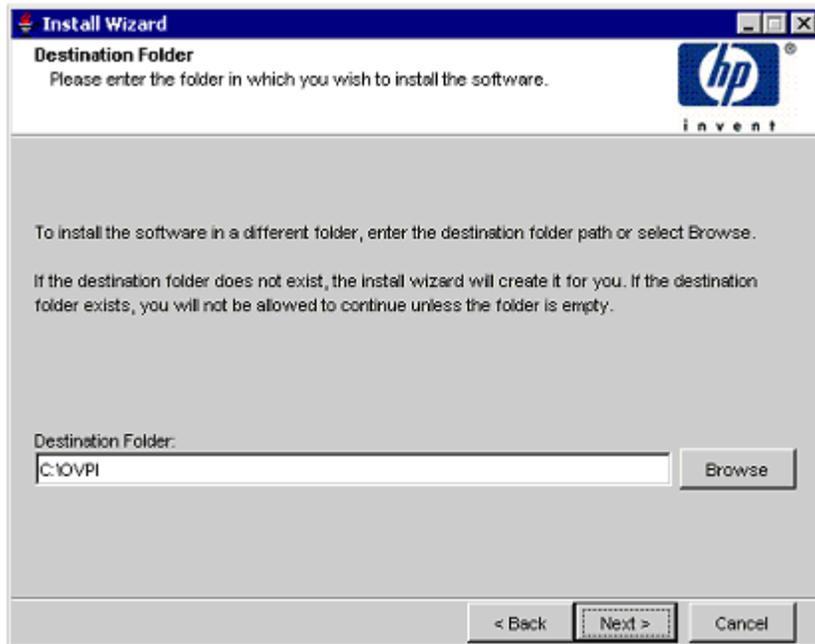
Task 3: Select a role for the database system

In the Server Role window, select **Standalone Server** (not Satellite Server as the graphic shows).

If you want to change the role at a later time, use the System and Network Administration application in the OVPI Management Console. For more information, see the *HP OpenView Performance Insight Administration Guide*.

Click **Next** to continue.

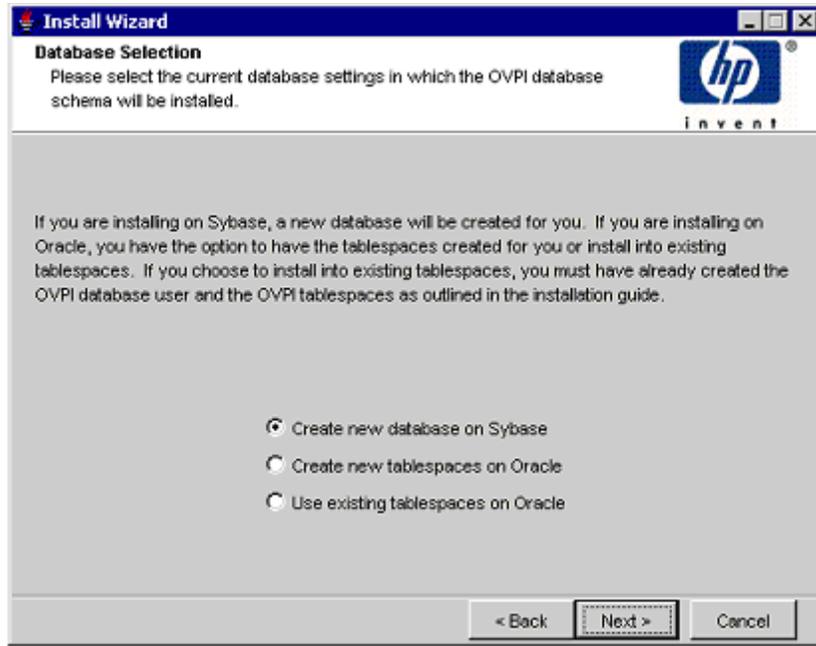
- Task 4: Specify a destination directory for the OVPI software
The Destination Folder window opens.



In the Destination Folder window, specify the directory to which the OVPI software will be installed. The destination directory can be an NFS mounted directory, a UNIX soft link, a UNIX hard link, or a Windows mapped drive.

- 1 Accept the default destination directory, or identify a different directory. The pathname cannot contain any spaces.
 - If the destination directory does not already exist, the Installation Program creates it.
 - If the destination directory does exist and contains data, a message warns you that the directory is not empty.
 - If the destination directory is located on a file system that the Installation Program cannot access, a message warns you. You cannot continue the installation until you supply a valid destination.

- 2 Click **Next** to continue. The Database Selection window opens.



Task 5: Select the RDBMS on which the OVPI database instance will be created

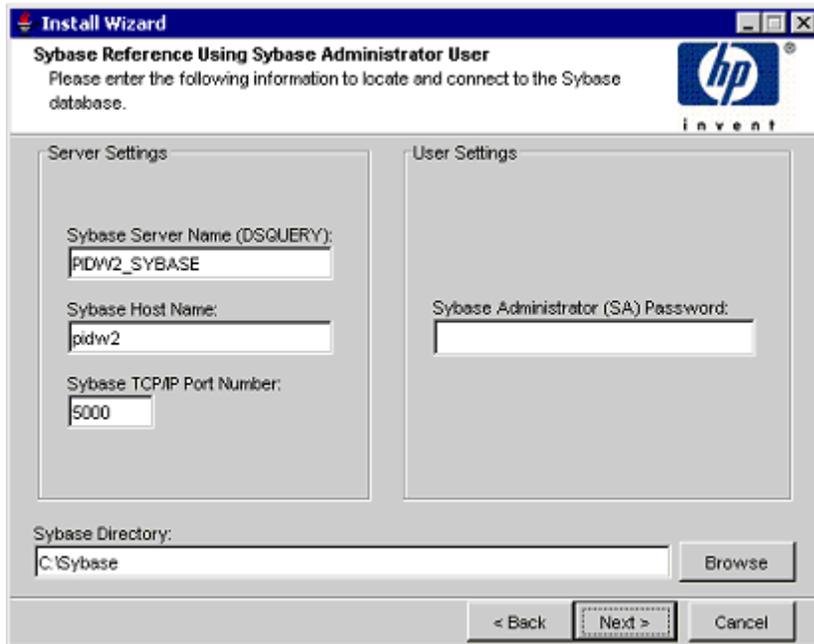
In the Database Selection window, identify the database onto which the OVPI database instance will be created and indicate whether to create new tablespaces or install into existing tablespaces.

- 1 Select the following option:

Create new database on Sybase

This option requires that no database user account (dsi_dpiper) or dsi_dpiper user exist in order for the installation to complete successfully.

- 2 Click **Next** to continue. The Sybase Reference Using Sybase Administrator User window opens.



Task 6: Locate and connect to the database

In the Sybase Reference Using Sybase Administrator User window, locate and connect to the Sybase database.

- 1 Accept the default values or type new values for the following parameters:
 - **Sybase Server Name (DSQUERY):** This is the name of the Sybase SQL Server where the client applications will look for information by default. (This name is case sensitive.) You can find the name of this server in the Sybase interfaces file. This file is located on the system where the Sybase SQL Server is installed. For more information about the Sybase interfaces file, see [Chapter 11, The Sybase Interfaces File](#).
 - **Sybase Host Name:** This is the name of the system on which Sybase is installed.
 - **Sybase TCP/IP Port Number.** The TCP/IP port number that Sybase uses to communicate with clients and servers on other systems. In addition to <DSQUERY>, there are several other Sybase SQL Servers

that will be assigned port numbers during the installation. These servers are the following:

Sybase Server	Windows	UNIX
<DSQUERY>_BS	5001	2053
<DSQUERY>_MS	5002	2054
<DSQUERY>_HS	5003	2055
<DSQUERY>_XP	5004	2056

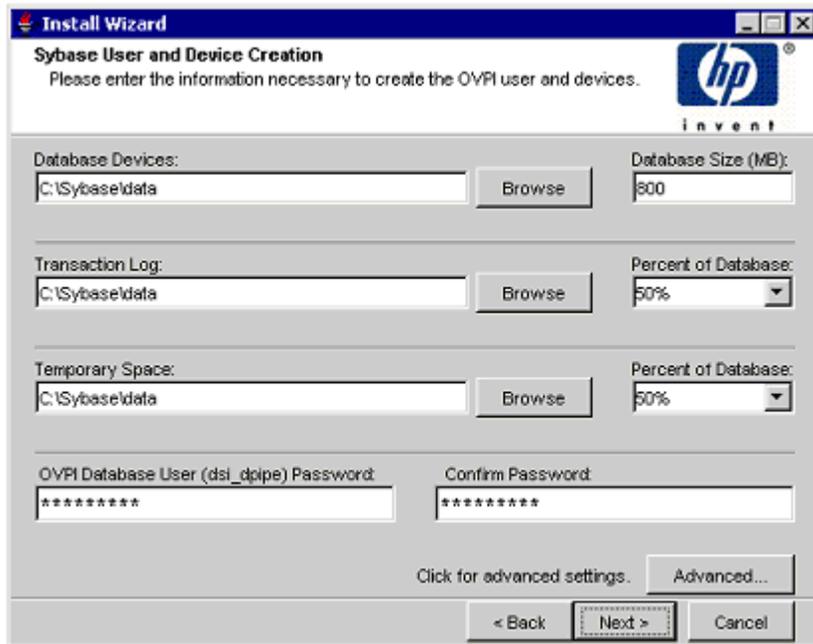
You must manually start each of these servers in order for them to work.

— **Sybase Administrator (SA) Password:** If you changed the Sybase Administrator password during the Sybase installation from a NULL value to an actual password, type that password in the Sybase Administrator (SA) Password box.

If you did not change the Sybase Administrator during the Sybase installation, you can leave this box blank.

- **Sybase Directory:** The directory into which you installed Sybase. Click **Browse** to select a different directory. After you select a directory, click **Open** to return to the Sybase SA Reference window.

- 2 Click **Next** to continue. The Sybase User and Device Creation window opens.



Task 7: Create the Sybase user account and the new database devices

In the Sybase User and Device Creation window, create the OVPI database user account and database devices.

The installation wizard creates the device files for the OVPI database using Sybase Adaptive Server. Files are created within Sybase for OVPI database, transaction log, and temporary space. The OVPI database uses the device files to store its data. (If raw devices are used, no device files are created.)

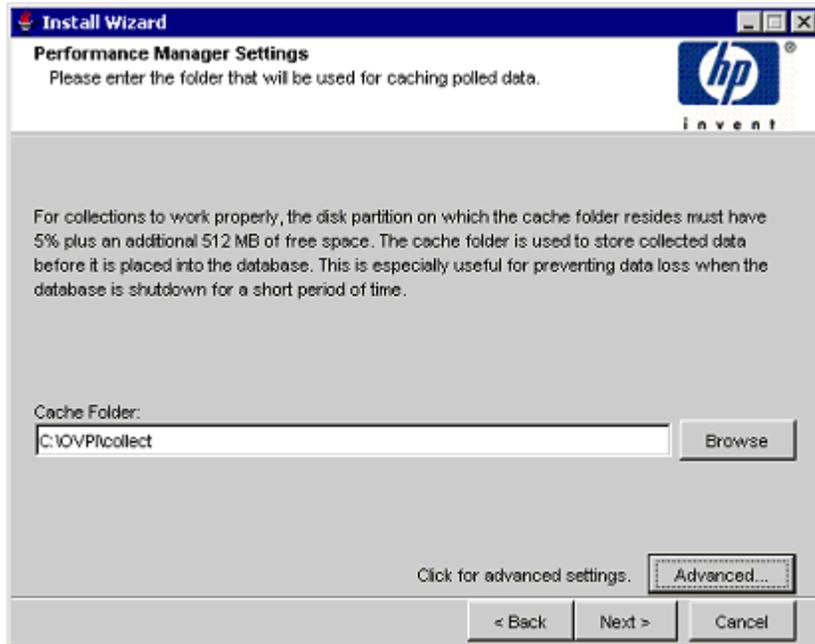
By default, the installation wizard creates the device files in the Sybase installation directory in a subfolder called dbfiles. You can change the name of this folder at this point in the installation. The name cannot contain any spaces.



All Sybase devices are created using the `vstart=512` option. This lets you use labeled file systems with OVPI. For example, if the size of your database is 800 MB, only 799 MB of it will be available, and 1MB is allocated for the label.

- 1 Accept the default values or type new values for the following parameters:
 - **Database Devices and Database Size (MB):** Type the file location of the database device and its size.
 - **Transaction Log and Percent of Database:** Type the file location of the transaction log and the amount of space allocated to it in the database.
 - **Temporary Space and Percent of Database:** Type the file location of the temporary space and the amount of space allocated to it in the database.
 - HP recommends that the temporary space (`dpipe_temp`) and the transaction log (`dpipe_log`) be approximately 50% the size of the database device (`dpipe_db`). For example, if the database (`dpipe_db`) is 800 MB, then the temporary space (`dpipe_temp`) and temporary log (`dpipe_log`) should be 400 MB each.
 - **OVPI Database User (`dsi_dpipe`) Password:** Type a password for the OVPI database user account (`dsi_dpipe`).
 - The password must start with an alphabetic character and be between one and 30 characters in length. The minimum length is six. Valid characters are all alphanumeric characters, the pound (#), and the underscore (_). The password is case sensitive.
 - **Confirm Password:** Retype the password.
- 2 (Optional) If necessary, click **Advanced** to display the Advanced OVPI Configuration window. Use the window to:
 - Add files to or remove them from the OVPI database devices (`dpipe_db`, `dpipe_temp`, and `dpipe_log`). On UNIX systems only, you can use raw partitions for these devices (Database, Transaction Log, and Temporary Space tabs). S0 and Veritas raw partitions are supported.

- Modify the Sybase configuration parameters (Parameters tab).
- 3 Click **Next** to continue. The Performance Manager Settings window opens.



Go to [Task 9](#) on page 102.

Task 8: (Optional) Modify the default database devices

- 1 Select the tab associated with the device (Database, Transaction Log, or Temporary Space) you want to modify.
- 2 To add a file to a database device, do one of the following:

Windows:

Click **Add**.

UNIX:

Click **Add**, and then click the Datafile arrow, and select a file from the list.

A precalculated size for the device appears next to the device's name in the Size (MB) column. If you are using raw partitions, it is recommended that you do not change this value.

- 3 *File-system database files only:* To edit the file, double-click the file, path, or size cell.
- 4 To remove a file:
 - a Click on the file, and press the TAB key.
 - b Press the up or down arrow key to enable selection, and then use the up or down arrow key to select the file you want to remove.
 - c Click **Remove**.



You must create at least one file for each device.

- d *UNIX only:* To use a raw partition for a database device, do the following:
 - Select the tab associated with the device that you want to use a raw partition.
 - Select the **Use raw partitions for this database** check box.

The installation application will find disk partitions that are not mounted, used, swapped or listed in the `/etc/vfstab` file. This will prevent any file systems that may have been unmounted, but are still available as file systems if the administrator were to mount them, from being used by the installation wizard.
- e Click **Apply** when you finish making all of your changes.
- f Click **OK** to return to the Sybase User and Device Creation window, and then click **Next** to continue the installation.

When you return to the Sybase User and Device Creation window, you may notice the following conditions:

- *UNIX only:* If you chose a raw partition for a particular database device, the database device will appear dimmed on the window.
- If you added a file to or removed a file from one of the devices, the percentages and database size listed on the window will be recalculated.

- If a database device has several files that are located in different directories, the fields for the database device will appear dimmed on the window.

Changing Sybase Configuration Parameters

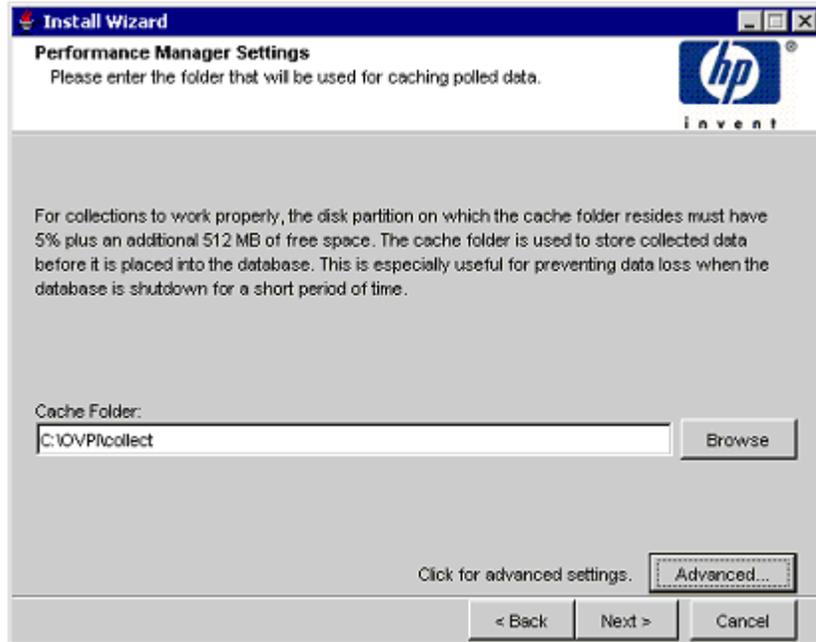


HP recommends that only a Sybase database administrator change the values for these parameters.

To change your Sybase configuration parameters:

- a Select the Parameters tab. The Parameters tab contains the following options:
 - Recovery Interval (Minutes). Sets the maximum number of minutes that the SQL Server should use to recover each database in case of system failure.
 - Maximum Memory (MB). Sets the size of memory that the SQL Server allocates from the operating system.
 - User Connections. Sets the maximum number of user connections that can be connected to a SQL Server at the same time. The global variable @@max_connections stores the maximum values for your system. It varies according to operating system.
 - Number of Locks. Sets the number of available locks.
 - Maximum Online Engines. Controls the number of engines in a symmetric multiprocessor environment.
 - If your system uses a single CPU, the recommended value is 1. If you increase the value, there is a possibility that Sybase will slow down due to internal contention. However, if your system uses multiple CPUs, the value may be increased in order to take advantage of the multiple CPU architecture.
 - Maximum Network Packet Size (Bytes). Sets the maximum network packet size that a client program can request.
 - Additional Network Memory (Bytes). Allocates additional memory for clients that request packet sizes larger than the default packet size for the server.
 - Number of Devices. Limits the number of database devices that the SQL Server can use.
- b Click **Apply** when you finish making all your changes.

- 5 Click **OK** to return to the Sybase User and Device Creation window.
- 6 Click **Next** to continue the installation. The Performance Manager Settings window opens.



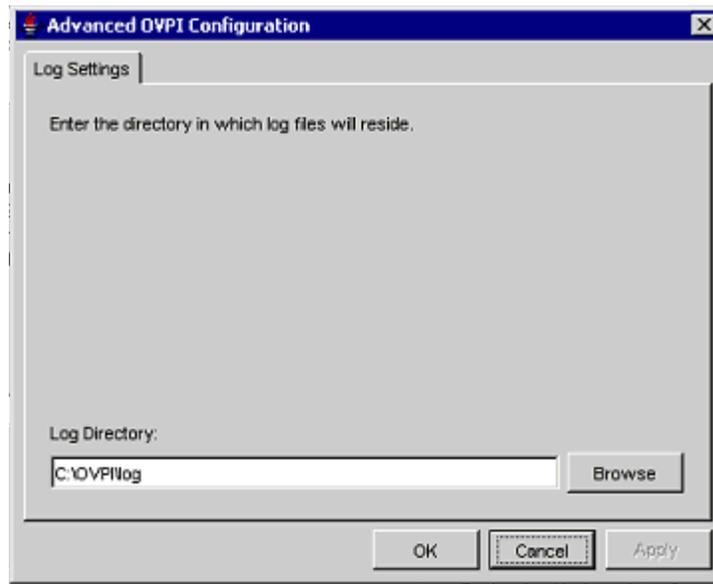
Task 9: Configure polling collections

In the Performance Manager Settings window, identify the cache directory in which to store collected data before it is placed into the database. This can prevent data loss when the database is shut down for a short period.

- 1 Accept the default directory or type a fully-qualified directory path to be used for caching polled data.

For collections to work properly, the disk partition on which the cache directory resides must have 5% plus an additional 512 MB of free space. For example, if the disk partition is 10 GB, it must have 1 GB of free space.

- 2 If needed, click **Advanced** to open the Advanced OVPI Configuration window, in which you can specify the directory in which the log files will reside.



- 3 Accept the default path, which creates a log directory under the directory to which you installed OVPI (log files will be maintained there, regardless of the directory you specify), or type the directory path in which the log files will reside.
- 4 Click **OK** to apply changes and return to the Performance Manager Settings window.
- 5 Click **Next** to continue.
- 6 Do one of the following:
 - UNIX Systems: Continue with [Task 10](#).
 - Windows Systems: Continue with [Task 11](#) on page 106.

Task 10: (UNIX only) Create or modify the operating system account

In the Operating System User for Performance Manager window, identify an operating system account and group named *trendadm*, the purpose of which is to preserve the environment in which OVPI will run.



Do not confuse the *trendadm* account used to log on to the operating system with the *trendadm* account created later, used to log on to the Web Access Server application.

The window prompts you for different information depending on whether the operating system and group account already exists.

- If the operating system account and group do not exist, the Create OS User window opens.

To create the operating system account and group:

- a Create a password for the *trendadm* account by typing values for the following:

- **Password:** The password must be at least one character long. It can be of any length and may contain any character. HP recommends that you adhere to your company's policy for password creation.
- **Confirm Password:** Retype the password.
- b Click **Next** to continue.
- If the operating system account and group exist, the Existing OS User window opens.

To modify the operating system account user environment.

- a Click one of the following:
 - **Modify user environment:** This parameter updates the trendadm account's .profile or .cshrc with the OVPI environment variables (COLLECT_HOME, DPIPE_HOME, DPIPE_TMP, and TREND_LOG).
 - **Do not modify user environment:** This parameter will not update the account's .profile or .cshrc with the OVPI environment variables. If you select this option, you must manually add the OVPI environment variables later.
- b Click **Next** to continue.

Task 11: Specify an administrator and port for the Web Access Server

In the Web Access Server Settings window, create an OVPI administrator account for the Web Access Server, as well as an HTTP port on which to listen.

The screenshot shows a window titled "Install Wizard" with the sub-title "Web Access Server Settings". The HP logo is in the top right corner. The text inside the window reads: "The OVPI Web Access Server component requires an OVPI administrator user to be created on your Web Access Server and a HTTP port on which to listen." Below this, there are two panels. The "User Settings" panel on the left asks for a username and password for the OVPI web access administrator. The "Port Settings" panel on the right asks for the HTTP port. At the bottom, there are buttons for "< Back", "Next >", and "Cancel", along with a link for "Advanced..." settings.

1 Type values for the following parameters:

- **Username:** Accept the default username for the Web Access Server administrator, or type a new name. This account is used to log on to the Web Access Server.
- ▶ Do not confuse this account with the trendadm account used for logging on the operating system (UNIX installations only), which is used to preserve the environment in which OVPI will run.

There are no restrictions on the minimum and maximum length or on the characters that can be used in the username and password. HP recommends that you adhere to your company's policy for username and password creation.

- **Password:** Type a password for the Web Access Server administrator account.

You can change password rules after you install OVPI using the Web Access Server application. see the *HP OpenView Performance Insight Administration Guide* for details.

- **Confirm Password:** Retype the password.
- **HTTP Port:** Accept the default port (80) or type a new port number for the Web Access Server. Any open port can be used.

- 2 If necessary, click **Advanced** to open the Advanced Configuration window, in which you can select the following tabs:

Directories: To change the location of report directories, in which all deployed reports are stored. To change the location of the reports directories:

- a Accept the default directory or identify a new directory.
- b Click **Apply**.
- c Click **OK** to return to the Web Access Server Settings window.

OVPI Users: To create and modify user accounts used to log on to OVPI clients. You can create regular user accounts or administrator accounts. Regular user accounts can access the OVPI clients. Administrator accounts can access the administration features (Administration link) of the Web Access Server. see the *HP OpenView Performance Insight Administration Guide* for details.

To add or modify a user account:

- a Click **Add User**. A default username (new-user), password (new-user), and role (user) displays, along with created user accounts.
- b Double-click the name or password, delete the value, and type a new value. Select either **user** or **admin** for Role.
- c Click **Apply**.

To remove a user account:

- a Select the user name and click **Remove User**.
- b Click **Apply**, and then click **OK** to return to the Web Access Server Settings window.

You can also create, modify, and delete user accounts after you install OVPI using the Web Access Server. See the *HP OpenView Performance Insight Administration Guide* for details.

SSL Setup: To enable SSL communications, which you can use to enable secure communication between the Web Access Server and a supported web browser, Report Viewer, Report Builder, and the Management Console. To enable SSL, you create a self-signed certificate. This self-signed certificate allows you to enable SSL, however, it is only valid for 90 days. You should send this certificate to a certificate authority in order to receive a signed digital certificate or generate another self-signed certificate before the 90 days expires. After you sign a digital certificate, you must import it using the Web Access Server application. You can also use the Web Access Server to change SSL settings after you install OVPI. See the *HP OpenView Performance Insight Administration Guide* for details.

To enable SSL communications and create a self-signed certificate, click to select the **Enable SSL** check box.

By selecting this option, you will not disable the standard HTTP listener. Thus, the secured SSL port and the unsecured HTTP port will both be enabled.

- a **SSL Port:** Accept the default value or type a new value.
- b **Keystore Password:** Type a password of six characters or more.

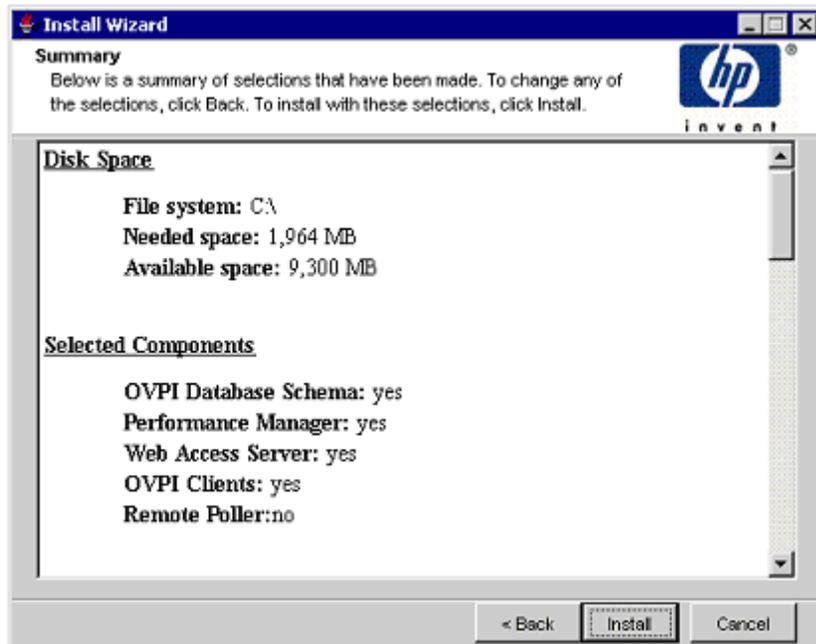
Record the password and keep it in a secure place. You will need it to generate a signed certificate.

After you generate your self-signed certificate, it will be stored in the certificate repository. This password lets the Web Access Server access the certificate repository.

The remaining fields request information that is necessary when you generate an SSL key that must be verified and signed by a certificate-signing authority. This information is used by the person who checks the certificate to ensure that the certificate is valid.

- a **Organization** (Optional): Type the name of your organization, for example, “ABC Systems, Inc.”
- b **Org. Unit** (Optional): Type the name of your department or division, for example, “Northeast Sales”.

- c **City** (Optional): Type the name of your city or locality, for example, “Los Angeles”.
 - d **State** (Optional): Type the name of your state or province, for example, “California”.
 - e **Country** (Required): Type your two-letter country code in the Country box, for example, “US”.
- 3 Click **Apply**.
 - 4 Click **OK** to return to the Web Access Server Settings window.
 - 5 Click **Next** to continue. The Summary window opens.



Task 12: Review the installation information

When the Summary window opens, review the displayed information.

- 1 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary window.

- 2 Click **Install** to continue. The Installation Progress window opens.

Task 13: Finish the installation

In the Installation Progress window you can view the status of the installation as it occurs. After the installation process is completed, information about whether the installation was successful is displayed.

If the OVPI installation completed successfully, click **Done**.

- UNIX Systems: the installation is complete.
- Windows Systems: reboot the system to complete installation.

If the OVPI installation was unsuccessful:

- 1 Click **Details** at the bottom of the Installation Progress window for additional information.
- 2 Contact Support (see [Support](#) on page 4).

Task 14: (Windows only) Reboot your Windows system

You must reboot before you can use OVPI.

To install report packs and datapipes, see the instructions in the *HP OpenView Performance Insight Administration Guide*.

5 Installing OVPI in a Distributed Environment

Starting the Installation Program

The OVPI installation program contains options for installing the OVPI components and remote pollers. To upgrade the database (which you must do before upgrading OVPI), see [Chapter 9, Upgrading to Sybase 15.0.1](#). To upgrade OVPI and the remote pollers, see [Chapter 10, Upgrading to OVPI 5.2](#).

Follow these steps:

- 1 Log on to the local system.

Windows Systems

Log on using the Administrator account.

UNIX Systems

Log on as root.

- 2 Insert the OVPI Installation CD in the CD-ROM drive.

UNIX Systems

Mount the CD using the following instructions.

Operating System	Command
Solaris	<p>The CD should mount automatically when you insert it in the CD-ROM drive, opening the File Manager window. If not, as root, type the following:</p> <pre>mkdir /cdrom mount -r /dev/dsk/cd_devicename /cdrom</pre> <p>In this instance, <i>cd_devicename</i> is the name of the CD-ROM device.</p>
HP-UX	<p>Use the SAM utility to mount the CD-ROM, <i>or</i> type the following commands:</p> <pre>mkdir /cdrom mount /dev/dsk/cd_devicename /cdrom</pre> <p>In this instance, <i>cd_devicename</i> is the name of the CD-ROM device.</p>
Red Hat Linux	<p>The CD should mount automatically when you insert it in the CD-ROM drive, opening the File Manager window. If not, as root, type the following:</p> <pre>mount -r /dev/cdrom <mount_directory></pre> <p>In this instance, <i>mount_directory</i> is the directory where contents of the CD-ROM are stored.</p>

Solaris Systems

- a Display the *cd_label* by typing the command:

```
ls -l /cdrom
```

- b Change directory by typing the command:

```
cd /cdrom/cd_label
```

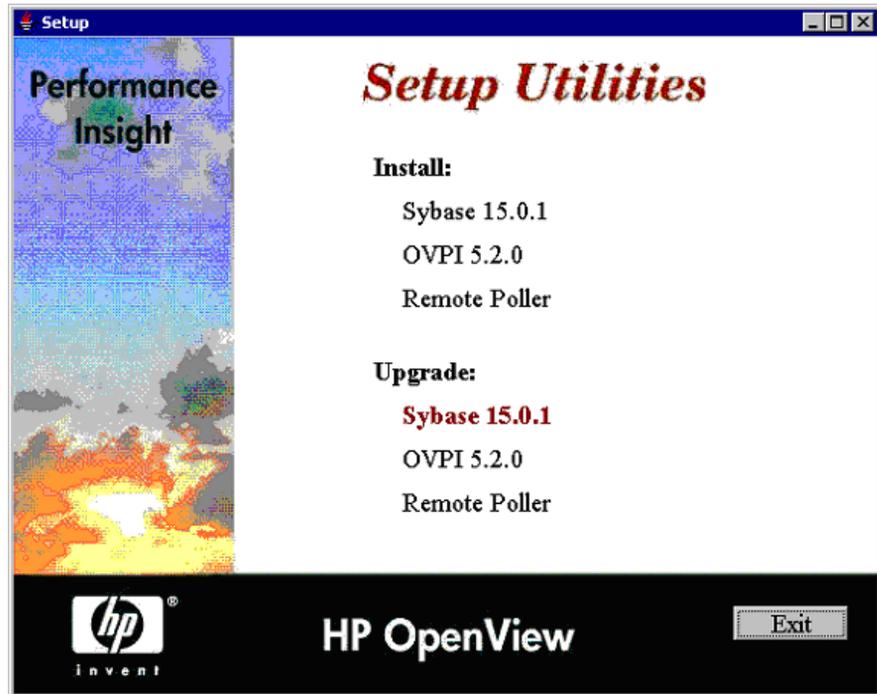
In this instance, *cd_label* identifies the CD name.

- 3 Start the installation program:

Windows Systems

Insert the OVPI Installation CD. The setup program should start automatically. If it does not, from the top -level folder on the CD, double-click setup.exe.

The Setup Utilities window opens.



If the window does not display correctly, change the text size of the Windows font:

- a From the Control Panel window, double-click the **Display** icon.
- b Select the Settings tab, and then click **Advanced**.
- c Select the General tab, and then select **Small Fonts** from the Font Size list.

UNIX Systems

Locate the setup program and start it by typing the command:

```
./setup
```

Next Steps

There are numerous ways to install OVPI in a distributed environment. The instructions describe how to individually install the OVPI components in the representative complex distributed configuration discussed in [Chapter 1, Introduction to OVPI Installation](#).

The order of installation in a distributed environment is:

- Install the OVPI Database Schema and OVPI Performance Manager on the central database server first.

Install the Web Access Server. If you have more than one Web Access Server, repeat the installation procedure for each.

Install report packs on the central database server. Do not install datapipes on the central database server unless the central server is polling. Then deploy reports to each Web Access Server. You can defer this task until the installation is complete.

- Install the OVPI Database Schema and OVPI Performance Manager on each satellite database server.

At this point, you can discover the network on the satellite database servers.

- Install report packs and datapipes on each satellite database server.

- Install the Remote Poller component on each remote polling system. If you have more than one remote polling system, you must repeat the installation procedure for each.

At this point, you can perform a type discovery of each satellite database server, configure report packs for operation in the distributed environment, and configure polling policies for remote polling systems. You can defer this task until the installation is complete.

- Install the OVPI client applications on individual workstations whose users will be accessing the Web Access Server.

OVPI Database Schema and OVPI Performance Manager

This section describes the steps for installing the OVPI Database Schema and OVPI Performance Manager on the database server (central or satellite) in a distributed environment. Unless you are using a remote database, you must install both components on the same system.

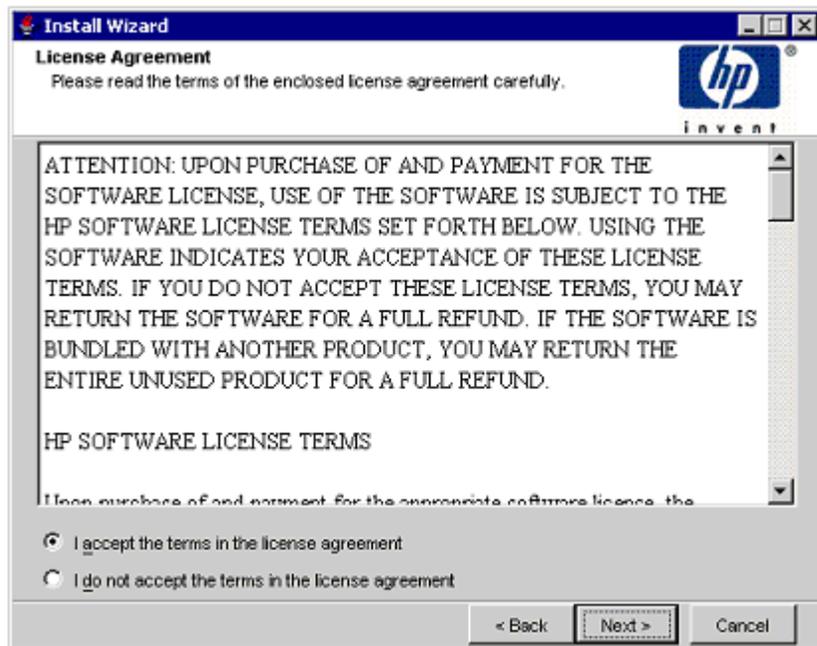
Much of the procedure is the same as for installing the OVPI Database Schema and OVPI Performance Manager on a standalone system.

Task 1: Start the OVPI installation program

- 1 If you have not already started the OVPI installation program, start it now.
- 2 The Setup Utilities window opens. Select **OVPI 5.2.0** from the Install section of the window. The Welcome window opens.



- 3 Read the Welcome window and click **Next** to continue. The License Agreement window opens.



- 4 Accept the license agreement and click **Next** to continue. You must accept the license agreement to proceed. If you click **Cancel**, you will be prompted to confirm your rejection of the license agreement and installation ends.

Task 2: Select the OVPI components you want to install

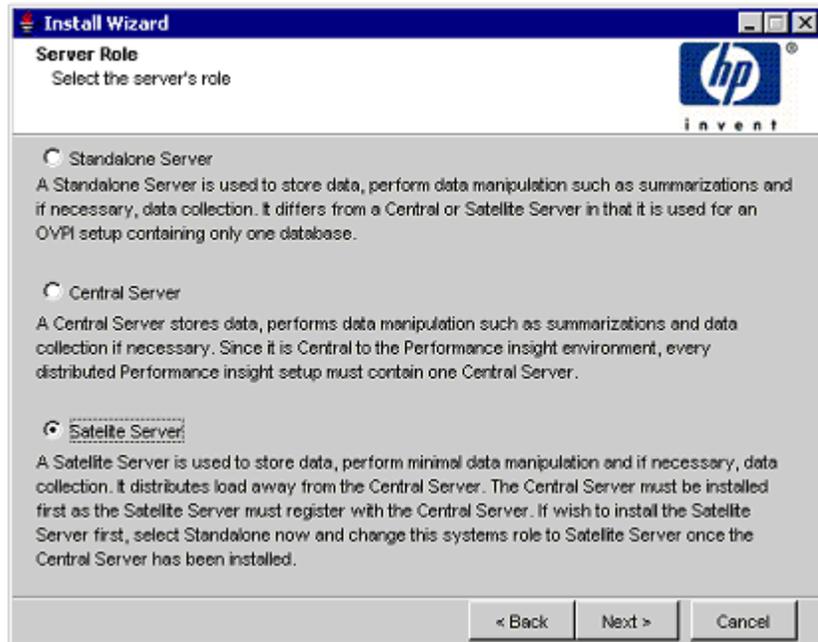
The Component Selection window opens.



- 1 Click to select **OVPI Database Schema** and **Performance Manager** from the Install section of the window. Deselect any other components.
- 2 Click **Next** to continue.

Task 3: Select a role for the database system

The Server Role window opens.



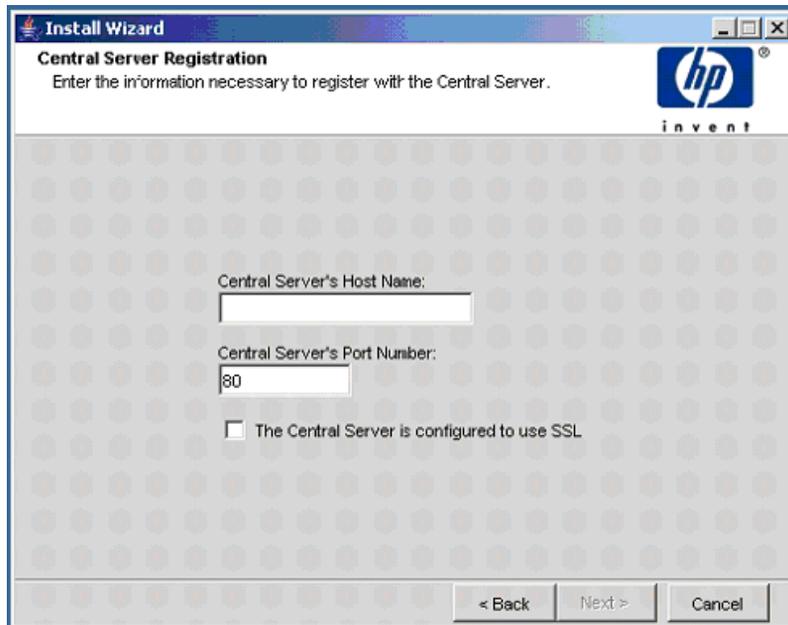
Select the desired role and click **Next** to continue.

If you want to change the role at a later time, use the System and Network Administration application in the OVPI Management Console. For more information, see the *HP OpenView Performance Insight Administration Guide*.

Task 4: Specify the host name and port number for the Satellite Server

Satellite Server provides an option to specify the host name and port number (default value is 80) of the central server to register with. This is required to synchronize the information stored in the systems.xml file. For secure communication, you can enable SSL. The registration is completed at the end of the installation process.

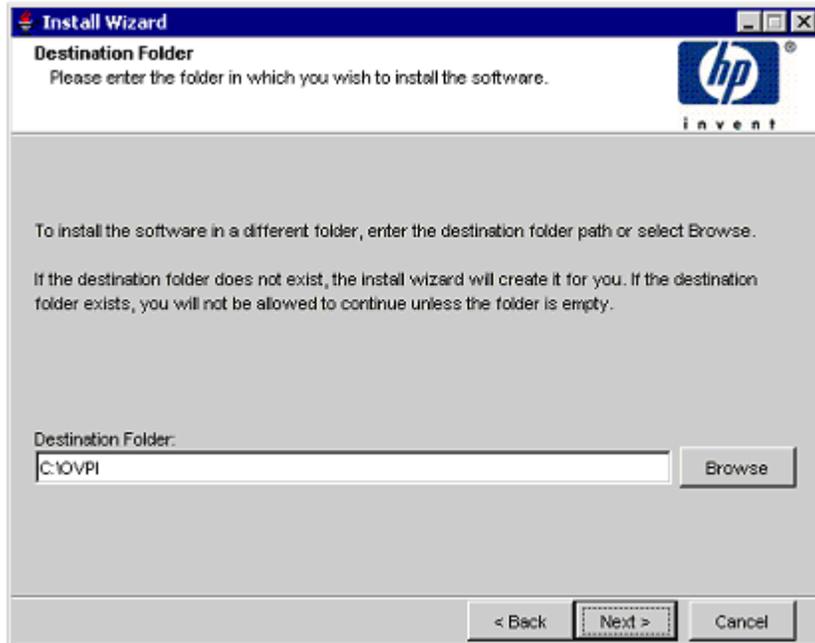
Click **Next** to continue. The Central Server Registration window opens.



The screenshot shows a window titled "Install Wizard" with a sub-header "Central Server Registration". Below the sub-header is the instruction "Enter the information necessary to register with the Central Server." and the HP logo with the word "invent" underneath. The main area of the window contains three input fields: "Central Server's Host Name:" (empty), "Central Server's Port Number:" (containing "80"), and a checkbox labeled "The Central Server is configured to use SSL" which is currently unchecked. At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

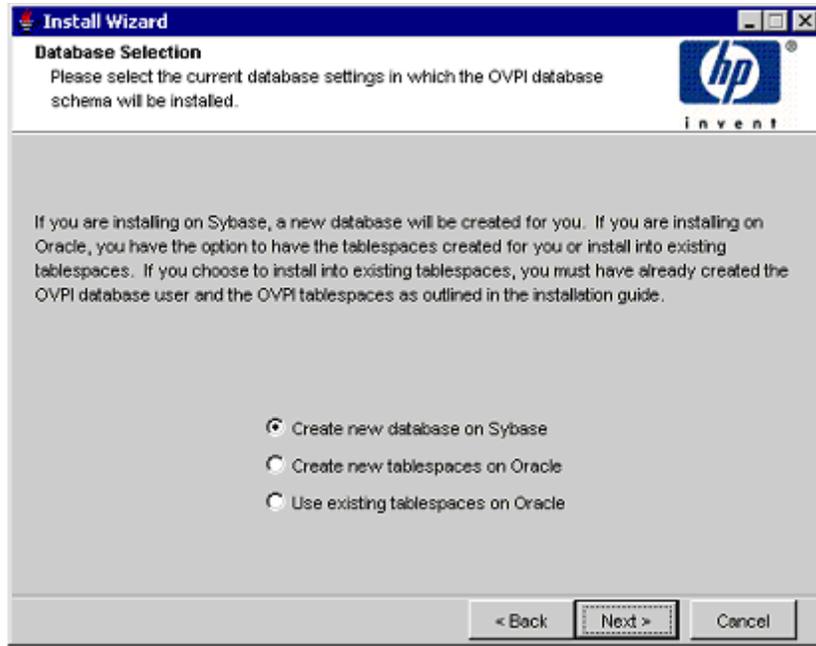
Task 5: Specify an installation directory for the OVPI software

In the Destination Folder window, specify the directory to which the OVPI software will be installed. The destination directory can be an NFS mounted directory, a UNIX soft link, a UNIX hard link, or a Windows mapped drive.



- 1 Accept the default destination directory, or identify a different directory. The pathname cannot contain any spaces.
 - If the destination directory does not already exist, the Installation Program creates it.
 - If the destination directory does exist and contains data, a message warns you that the directory is not empty.
 - If the destination directory is located on a file system that the Installation Program cannot access, a message warns you. You cannot continue the installation until you supply a valid destination.

- 2 Click **Next** to continue. The Database Selection window opens.

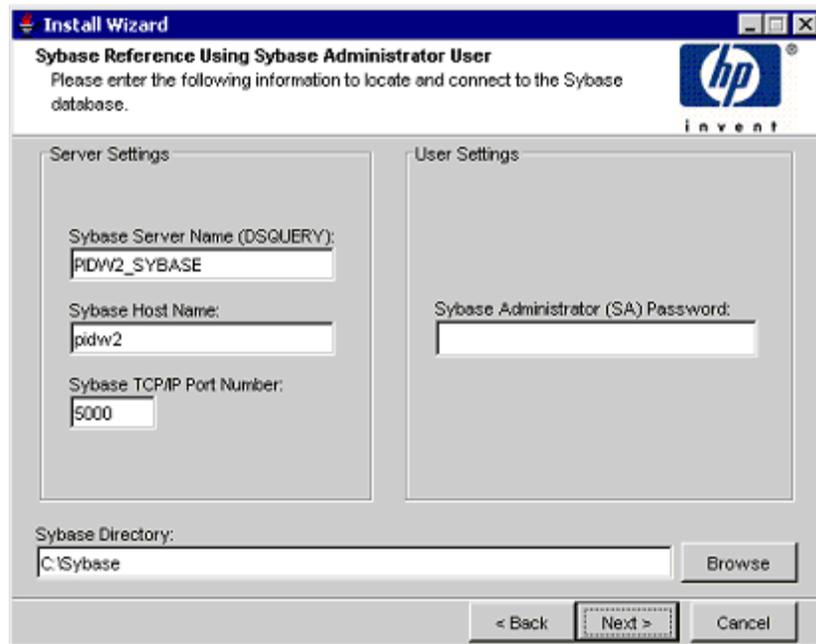


Task 6: Select the RDBMS on which the OVPI database instance will be installed

- 1 In the Database Selection window, select **Create new database on Sybase**.

This option requires that no `dpipe_db` database or `dsi_dpipe` user exist in order for the installation to complete successfully.

- 2 Click **Next** to continue. The Sybase Reference Using Database Administrator User window opens.



Task 7: Locate and connect to the database

In the Sybase Reference Using Sybase Administrator User window, locate and connect to the Sybase database.

- 1 Accept the default values or type new values for the following parameters:
 - **Sybase Server Name (DSQUERY):** This is the name of the Sybase SQL Server where the client applications will look for information by default. (This name is case sensitive.) You can find the name of this server in the Sybase interfaces file. This file is located on the system where the Sybase SQL Server is installed. For more information about the Sybase interfaces file, see [Chapter 11, The Sybase Interfaces File](#).
 - **Sybase Host Name:** This is the name of the system on which Sybase is installed.

- **Sybase TCP/IP Port Number.** The TCP/IP port number that Sybase uses to communicate with clients and servers on other systems. In addition to <DSQUERY>, the following Sybase SQL Servers will be assigned port numbers during the installation:

Sybase Server	Windows	UNIX
<DSQUERY>_BS	5001	2053
<DSQUERY>_MS	5002	2054
<DSQUERY>_HS	5003	2055
<DSQUERY>_XP	5004	2056

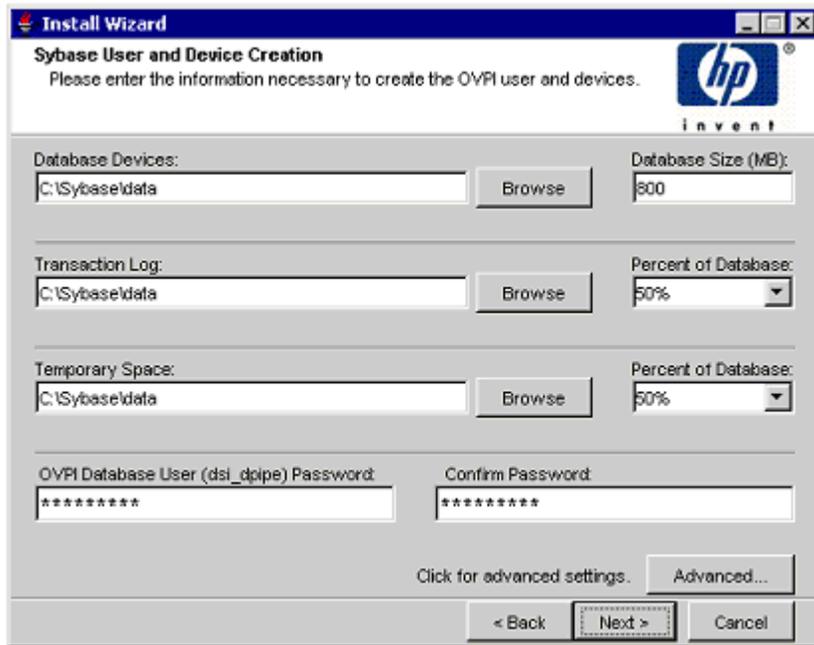
You must manually start each of these servers in order for them to work.

- **Sybase Administrator (SA) Password:** If you changed the Sybase Administrator password during the Sybase installation from a NULL value to an actual password, type that password in the Sybase Administrator (SA) Password box.

If you did not change the Sybase Administrator during the Sybase installation, you can leave this box blank.

- **Sybase Directory:** The directory into which you installed Sybase. Click **Browse** to select a different directory. After you select a directory, click **Open** to return to the Sybase SA Reference window.

- 2 Click **Next** to continue. The Sybase User and Device Creation window opens.



Task 8: Create the Sybase user account and the new database devices

In the Sybase User and Device Creation window, create the OVPI database user account and database devices.

The installation wizard creates the device files for the OVPI database using Sybase Adaptive Server. Files are created within Sybase for the OVPI database, transaction log, and temporary space. The OVPI database uses the device files to store its data. (If raw devices are used, no device files are created.)

By default, the installation wizard creates the device files in the Sybase installation directory in a subfolder called dbfiles. You can change the name of this folder at this point in the installation to be something different. The name cannot contain any spaces.



All Sybase devices are created using the `vstart=512` option. This lets you use labeled file systems with OVPI. For example, if the size of your database is 800 MB, only 799 MB of it will be available, and 1 MB is allocated for the label.

1 Accept the default values or type new values for the following parameters:

- **Database Devices and Database Size (MB):** Type the file location of the database device and its size.
- **Transaction Log and Percent of Database:** Type the file location of the transaction log and the amount of space allocated to it in the database.
- **Temporary Space and Percent of Database:** Type the file location of the temporary space and the amount of space allocated to it in the database.

HP recommends that the temporary space (`dpipe_temp`) and the transaction log (`dpipe_log`) be approximately 50% the size of the database device (`dpipe_db`). For example, if the database (`dpipe_db`) is 800 MB, then the temporary space (`dpipe_temp`) and temporary log (`dpipe_log`) should be 400 MB each.

- **OVPI Database User (`dsi_dpipe`) Password:** Type a password for the OVPI database user account (`dsi_dpipe`).

The password must start with an alphabetic character and must be between one and 30 characters in length. The minimum length is six. Valid characters are all alphanumeric characters, the pound (#), and the underscore (_). The password is case sensitive.

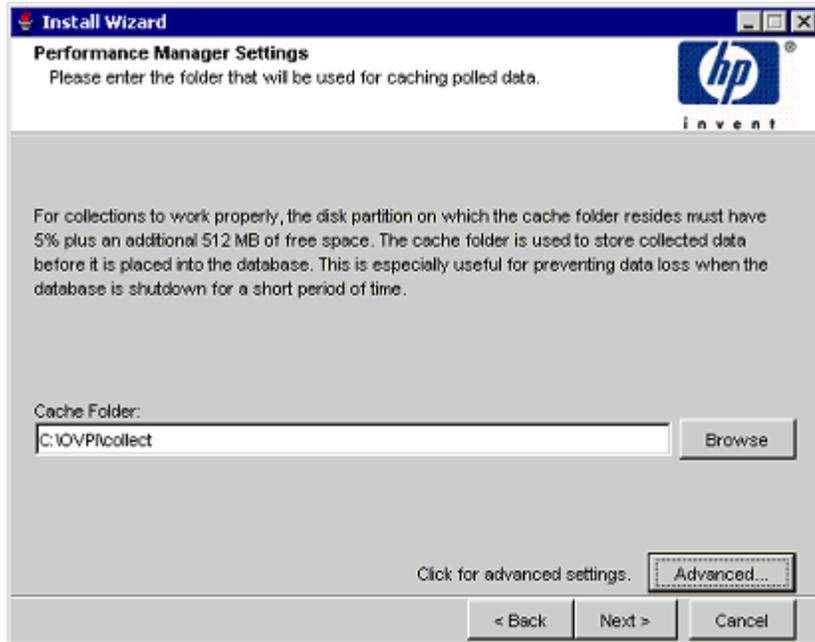
- **Confirm Password:** Retype the password.

2 (Optional) If necessary, click **Advanced** to display the Advanced OVPI Configuration window. Use the window to:

- Add files to or remove them from the OVPI database devices (`dpipe_db`, `dpipe_temp`, and `dpipe_log`).

On UNIX systems only, you can use raw partitions for these devices (Database, Transaction Log, and Temporary Space tabs). S0 and Veritas raw partitions are supported.

- Modify the Sybase configuration parameters (Parameters tab). See [Changing Sybase Configuration Parameters](#) on page 128.
- 3 Click **Next** to continue. The Performance Manager Settings window opens.



Go to [Task 10](#) on page 129.

Task 9: (Optional) Modify the default database devices

- 1 Select the tab associated with the device (Database, Transaction Log, or Temporary Space) you want to modify.
- 2 To add a file to a database device, do one of the following:

Windows:

Click **Add**.

UNIX:

Click **Add**, and then click the Datafile arrow, and select a file from the list.

A precalculated size for the device appears next to the device's name in the Size (MB) column. If you are using raw partitions, it is recommended that you do not change this value.

- 3 *File-system database files only*: To edit the file, double-click the file, path, or size cell.
- 4 To remove a file:
 - a Click on the file, and press the TAB key.
 - b Press the up or down arrow key to enable selection, and then use the up or down arrow key to select the file you want to remove.
 - c Click **Remove**.



You must create at least one file for each device.

- d *UNIX only*: To use a raw partition for a database device, do the following:

- Select the tab associated with the device that you want to use a raw partition.
- Select the **Use raw partitions for this database** check box.

The installation application will find disk partitions that are not mounted, used, swapped or listed in the `/etc/vfstab` file. This will prevent any file systems that may have been unmounted, but are still available as file systems if the administrator were to mount them, from being used by the installation wizard.

- e Click **Apply** when you finish making all of your changes.
- f Click **OK** to return to the Sybase User and Device Creation window, and then click **Next** to continue the installation.

When you return to the Sybase User and Device Creation window, you may notice the following conditions:

- *UNIX only*: If you chose a raw partition for a particular database device, the database device will appear dimmed on the window.

- If you added a file to or removed a file from one of the devices, the percentages and database size listed on the window will be recalculated.
- If a database device has several files that are located in different directories, the fields for the database device will appear dimmed on the window.

Changing Sybase Configuration Parameters



HP recommends that only a Sybase database administrator change the values for these parameters.

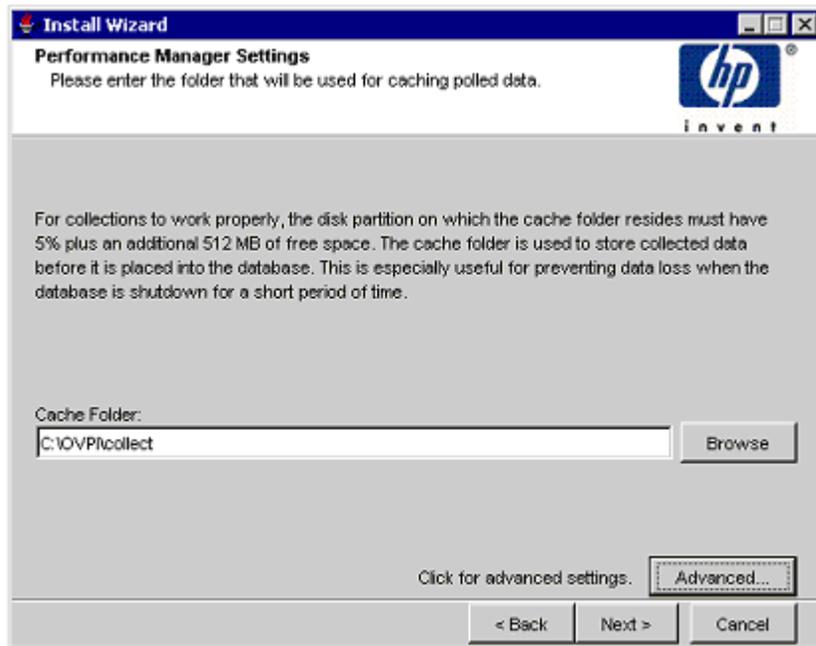
To change your Sybase configuration parameters:

- a Select the Parameters tab. The Parameters tab contains the following options:
 - Recovery Interval (Minutes). Sets the maximum number of minutes that the SQL Server should use to recover each database in case of system failure.
 - Maximum Memory (MB). Sets the size of memory that the SQL Server allocates from the operating system.
 - User Connections. Sets the maximum number of user connections that can be connected to a SQL Server at the same time. The global variable @@max_connections stores the maximum values for your system. It varies according to operating system.
 - Number of Locks. Sets the number of available locks.
 - Maximum Online Engines. Controls the number of engines in a symmetric multiprocessor environment.
 - If your system uses a single CPU, the recommended value is 1. If you increase the value, there is a possibility that Sybase will slow down due to internal contention. However, if your system uses multiple CPUs, the value may be increased to take advantage of the multiple CPU architecture.
 - Maximum Network Packet Size (Bytes). Sets the maximum network packet size that a client program can request.
 - Additional Network Memory (Bytes). Allocates additional memory for clients that request packet sizes larger than the default packet size for the server.

- Number of Devices. Limits the number of database devices that the SQL Server can use.
- b Click **Apply** when you finish making all of your changes.
- 5 Click **OK** to return to the Sybase User and Device Creation window.
- 6 Click **Next** to continue the installation.

Task 10: Configure polling collections

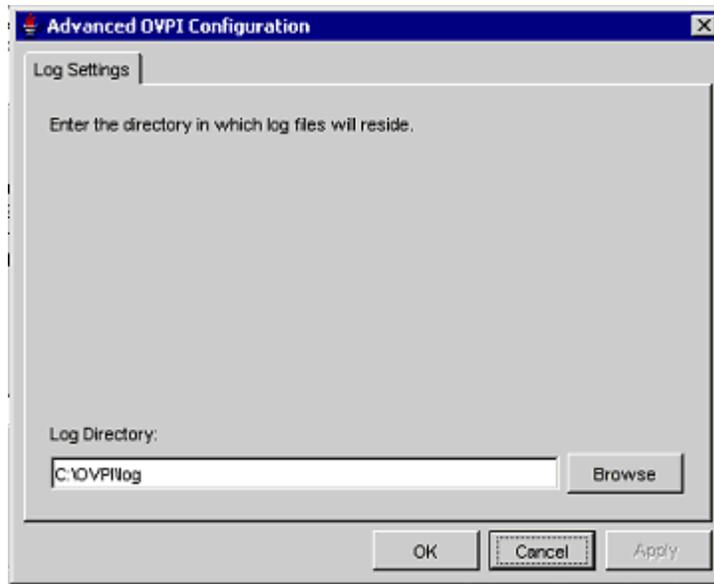
In the Performance Manager Settings window, identify the cache directory in which to store collected data before it is placed into the database. This can prevent data loss when the database is shut down for a short period.



- 1 Accept the default directory or type a fully-qualified directory path to be used for caching polled data.

For collections to work properly, the disk partition on which the cache directory resides must have 5% plus an additional 512 MB of free space. For example, if the disk partition is 10 GB, it must have 1 GB of free space.

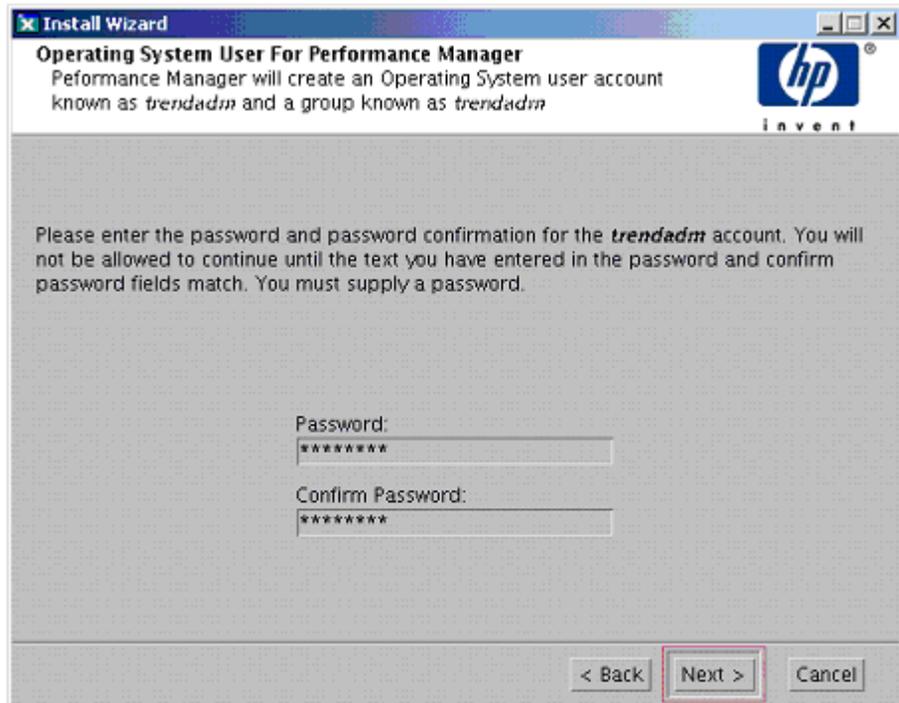
- 2 If needed, click **Advanced** to open the Advanced OVPI Configuration window, where you can specify the directory in which the log files will reside.



- 3 Accept the default path, which creates a log directory under the directory to which you installed OVPI (log files will be maintained there, regardless of the directory you specify), or type the directory path in which the log files will reside.
- 4 Click **OK** to apply changes and return to the Performance Manager Settings window.
- 5 Click **Next** to continue.

Task 11: UNIX systems only: Create or modify the operating system account

In the Operating System User for Performance Manager window, identify an operating system account and group named `trendadm`, whose purpose is to preserve the environment in which OVPI will run.



Do not confuse the `trendadm` account used to log on to the operating system with the `trendadm` account created later, used to log on to the Web Access Server application.

The window prompts you for different information depending on whether the operating system and group account already exist.

- If the operating system account and group do not exist, the Create OS User window opens.

To create the operating system account and group:

- a Create a password for the `trendadm` account by typing values for the following:

- **Password:** The password must be at least one character long. There is no maximum on length. You can use any characters. HP recommends that you adhere to your company's policy for password creation.
- **Confirm Password:** Retype the password.
- b Click **Next** to continue.
- If the operating system account and group exist, the Existing OS User window opens.

To modify the operating system account user environment:

- a Click one of the following:
 - **Modify user environment:** This parameter updates the trendadm account's .profile or .cshrc with the OVPI environment variables (COLLECT_HOME, DPIPE_HOME, DPIPE_TMP, and TREND_LOG).
 - **Do not modify user environment:** This parameter will not update the account's .profile or .cshrc with the OVPI environment variables. If you select this option, you must manually add the OVPI environment variables later.
- b Click **Next** to continue.

Task 12: Specify an administrator and port for the Web Access Server

In the Web Access Server Settings window, create an OVPI administrator account for the Web Access Server, as well as an HTTP port on which to listen.

1 Type values for the following parameters:

- **Username:** Accept the default username for the Web Access Server administrator, or type a new name. This account is used to log on to the Web Access Server.
- ▶ Do not confuse this account with the trendadm account used for logging on the operating system (UNIX installations only), which is used to preserve the environment in which OVPI will run.

There are no restrictions on the minimum and maximum length or on the characters that can be used in the username and password. HP recommends that you adhere to your company's policy for username and password creation.

- **Password:** Type a password for the Web Access Server administrator account.

You can change password rules after you install OVPI using the Web Access Server application. See the *HP OpenView Performance Insight Administration Guide* for details.

- **Confirm Password:** Retype the password.
- **HTTP Port:** Accept the default port (80) or type a new port number for the Web Access Server. Any open port can be used.

- 2 If necessary, click **Advanced** to open the Advanced Configuration window, in which you can select the following tabs:

Directories: Change the location of report directories in which all deployed reports are stored.

- a Accept the default directory or identify a new directory.
- b Click **Apply**.
- c Click **OK** to return to the Web Access Server Settings window.

OVPI Users: Create and modify user accounts used to log on to OVPI clients. You can create regular user accounts or administrator accounts. Regular user accounts can access the OVPI clients. Administrator accounts can access the administration features (Administration link) of the Web Access Server. See the *HP OpenView Performance Insight Administration Guide* for details.

To add or modify a user account:

- a Click **Add User**. A default username (new-user), password (new-user), and role (user) displays, along with created user accounts.
- b Double-click the name or password, delete the value, and type a new value. Select either **user** or **admin** for Role.
- c Click **Apply**.

To remove a user account:

- a Select the user name and click **Remove User**.
- b Click **Apply**, and then click **OK** to return to the Web Access Server Settings window.

You can also create, modify, and delete user accounts after you install OVPI using the Web Access Server. See the *HP OpenView Performance Insight Administration Guide* for details.

SSL Setup: Enable SSL communications to enable secure communication between the Web Access Server and a supported web browser, Report Viewer, Report Builder, and the Management Console. To enable SSL, you create a self-signed certificate. This self-signed certificate allows you to enable SSL, however, it is only valid for 90 days. You should send this certificate to a certificate authority in order to receive a signed digital certificate or generate another self-signed certificate before the 90 days expires. After you sign a digital certificate, you must import it using the Web Access Server application. You can also use the Web Access Server to change SSL settings after you install OVPI. See the *HP OpenView Performance Insight Administration Guide* for details.

To enable SSL communications and create a self-signed certificate:

- a Click to select the **Enable SSL** check box.

By selecting this option, you will not disable the standard HTTP listener. Thus, the secured SSL port and the unsecured HTTP port will both be enabled.

- **SSL Port:** Accept the default value or type a new value.

- **Keystore Password:** Type a password of six characters or more. Record the password and keep it in a secure place. You will need it to generate a signed certificate.

After you generate your self-signed certificate, it will be stored in the certificate repository. This password lets the Web Access Server access the certificate repository.

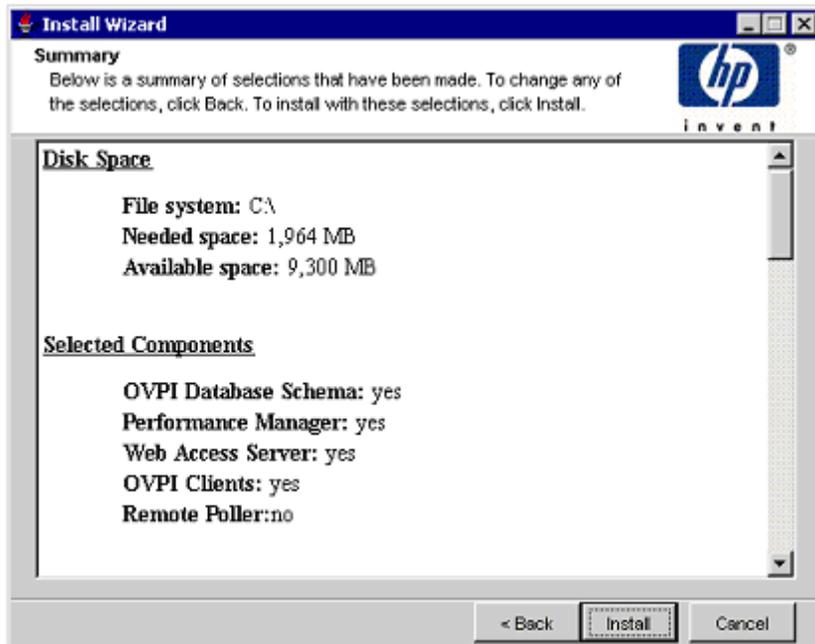
- b The remaining fields request information that is necessary when you generate an SSL key that must be verified and signed by a certificate-signing authority. This information is used by the person who checks the certificate to ensure that the certificate is valid.

- **Organizations:** Optional. Type the name of your organization, for example, “ABC Systems, Inc.”

- **Org. Unit:** Optional. Type the name of your department or division, for example, “Northeast Sales”.

- **City:** Optional. Type the name of your city or locality, for example, “Los Angeles”.

- **State:** Optional. Type the name of your state or province, for example, “California”.
 - **Country:** Required. Type your two-letter country code in the Country box, for example, “US”.
- c Click **Apply**.
 - d Click **OK** to return to the Web Access Server Settings window.
- 3 Click **Next** to continue. The Summary window opens.



Task 13: Review the installation information

In the Summary window, review the installation selections.

- 1 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary window.
- 2 Click **Install** to continue. The Installation Progress window opens.

Task 14: Finish the installation

In the Installation Progress window you can view the status of the installation as it occurs. After the installation process is completed, information about whether the installation was successful is displayed.

- If the OVPI installation completed successfully, click **Done**.
UNIX Systems: The installation is complete.
Windows Systems: Reboot the system to complete installation.
- If the OVPI installation was unsuccessful:
 - a Click **Details** at the bottom of the Installation Progress window for additional information.
 - b Contact Support (see [Support](#) on page 4).

Task 15: Install other OVPI components as necessary

To install the Web Access Server, go to [Installing the Web Access Server](#) on page 138.

To install Remote Pollers, go to [Installing the Remote Poller Component](#) on page 147.

To install Client Applications, go to [Installing Only the OVPI Clients](#) on page 144.

Installing the Web Access Server

The database should be installed and running before you install the Web Access Server.

During installation, you are asked to provide the remote management server host name and port number. This enables the Installation Program to download database information from the database system. If you did not install the database, the installation will continue. However, you must use the Management Console to configure the database system after the install.

Much of the procedure is the same as for installing the Web Access Server on a standalone system.

Task 1: Start the OVPI installation program

- 1 If you have not already started the OVPI installation program, start it now.
- 2 The Setup window opens. Select **OVPI 5.2.0** from the Install section of the window.
- 3 The Welcome window opens. Read the Welcome window and click **Next** to continue.
- 4 The License Agreement window opens. Accept the license agreement and click **Next** to continue.



You must accept the license agreement to proceed. If you click **Cancel**, you will be prompted to confirm your rejection of the license agreement and installation ends.

Task 2: Select the OVPI components to install

The Component Selection window opens. Use the window to select the components to install.

- 1 Click to select **Web Access Server** from the Install section of the window. Deselect any other components.
- 2 Click **Next** to continue.

Task 3: Specify an installation directory for the OVPI components

If you already installed another OVPI component on this system, you provided directory information. Continue to [Task 4](#).

In the Destination Folder window, specify the directory to which the OVPI software will be installed. The destination directory can be an NFS mounted directory, a UNIX soft link, a UNIX hard link, or a Windows mapped drive.

- 1 Accept the default destination directory, or identify a different directory. The pathname cannot contain any spaces.
 - If the destination directory does not already exist, the Installation Program creates it.
 - If the destination directory does exist and contains data, a message warns you that the directory is not empty.
 - If the destination directory is located on a file system that the Installation Program cannot access, a message warns you. You cannot continue the installation until you supply a valid destination.
- 2 Click **Next** to continue. The Database Selection window opens.

Task 4: Specify an administrator and port for the Web Access Server

The Web Access Server Settings window opens. Use the window to create an OVPI administrator account for the Web Access Server, as well as an HTTP port on which to listen.

- 1 Type values for the following parameters:
 - **Username:** Accept the default username for the Web Access Server administrator, or type a new name. This account is used to log on to the Web Access Server.
-  Do not confuse this account with the trendadm account used for logging on the operating system (UNIX installations only), which is used to preserve the environment in which OVPI will run.

There are no restrictions on the minimum and maximum length or on the characters that can be used in the username and password. HP recommends that you adhere to your company's policy for username and password creation.

- **Password:** Type a password for the Web Access Server administrator account.

You can change password rules after you install OVPI using the Web Access Server application. See the *HP OpenView Performance Insight Administration Guide* for details.

- **Confirm Password:** Retype the password.
 - **HTTP Port:** Accept the default port (80) or type a new port number for the Web Access Server. Any open port can be used.
- 2 If needed, click **Advanced** to open the Advanced Configuration window, where you can select the following tabs:
 - **Directories:** To change the location of report directories, go to [Directories](#) (below).
 - **OVPI Users:** To create and modify user accounts, go to [OVPI Users](#) (below).
 - **SSL Setup:** To enable SSL communications, go to [SSL Setup](#) on page 141.
 - 3 Click **Next** to continue.

Directories

The reports directory is where all deployed reports will be stored. To change the location of the reports directories:

- 1 Accept the default directory or identify a new directory.
- 2 Click **Apply**.
- 3 Click **OK** to return to the Web Access Server Settings window.

OVPI Users

User accounts are used to log on to the following OVPI clients: Management Console, Report Builder, Report Viewer, and Web Access Server.

You can create regular user accounts or administrator accounts. Regular user accounts can access the OVPI clients. Administrator accounts can access the administration features (Administration link) of the Web Access Server. See the *HP OpenView Performance Insight Administration Guide* for details.

To add or modify a user account:

- 1 Click **Add User**. A default username (new-user), password (new-user), and role (user) displays, along with created user accounts.

- 2 Double-click the name or password, delete the value, and type a new value. Select either **user** or **admin** for Role.
- 3 Click **Apply**.

To remove a user account:

- 1 Select the user name.
- 2 Click **Remove User**.
- 3 Click **Apply**.
- 4 Click **OK** to return to the Web Access Server Settings window.

You can also create, modify, and delete user accounts after you install OVPI using the Web Access Server. See the *HP OpenView Performance Insight Administration Guide* for details.

SSL Setup

You can use SSL to enable secure communication between the Web Access Server and a supported Web browser, Report Viewer, Report Builder, and the Management Console.

To enable SSL, you create a self-signed certificate. This self-signed certificate will allow you to enable SSL, however, it is only valid for 90 days. You should send this certificate to a certificate authority in order to receive a signed digital certificate or generate another self-signed certificate before the 90 days expires.

Once you have a signed digital certificate, you must import it using the Web Access Server application. Additionally, you can use the Web Access Server to change SSL settings after you install OVPI. See the *HP OpenView Performance Insight Administration Guide* for details.

To enable SSL communications and create a self-signed certificate:

- 1 Click to select the **Enable SSL** check box.

By selecting this option, you will not disable the standard HTTP listener. Thus, the secured SSL port and the unsecured HTTP port will both be enabled.

— **SSL Port:** Accept the default value or type a new value.

— **Keystore Password:** Type a password of six characters or more. Record the password and keep it in a secure place. You will need it to generate a signed certificate.

After you generate your self-signed certificate, it will be stored in the certificate repository. This password lets the Web Access Server access the certificate repository.

The remaining fields request information that is necessary when you generate an SSL key that must be verified and signed by a certificate-signing authority. This information is used by the person who checks the certificate to ensure that the certificate is valid.

- **Organization:** Optional. Type the name of your organization, for example, “ABC Systems, Inc.”
 - **Org. Unit:** Optional. Type the name of your department or division, for example, “Northeast Sales”.
 - **City:** Optional. Type the name of your city or locality, for example, “Los Angeles”.
 - **State:** Optional. Type the name of your state or province, for example, “California”.
 - **Country:** Required. Type your two-letter country code in the Country box, for example, “US”.
- 2 Click **Apply**.
 - 3 Click **OK** to return to the Web Access Server Settings window.

Supply information about the remote database.

The Remote Management Server Settings window opens. Use the window to supply information necessary to locate and download system information necessary to connect to your remote OVPI database.

- 1 Specify information for the following parameters:
 - **Remote Management Server Host:** Type the name of the database host.
 - **Remote Management Server Port:** Type the HTTP port number for the database host.

If the system fails to connect to the database to obtain database information, a warning message displays. (If you continue the installation, you must use the Management Console to set up the database connection after the installation finishes.)

- 2 Click **Next** to continue.

Task 5: Review the installation information

In the Summary window, review the installation selections.

- 1 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary window.
- 2 Click **Install** to continue. The Installation Progress window opens.

Task 6: Finish the installation

In the Installation Progress window you can view the status of the installation as it occurs. After the installation process is completed, information about whether the installation was successful is displayed.

- If the OVPI installation completed successfully, click **Done**.
 - UNIX Systems: the installation is complete.
 - Windows Systems: reboot the system to complete installation.
- If the OVPI installation was unsuccessful:
 - a Click **Details** at the bottom of the Installation Progress window for additional information.
 - b Contact Support (see [Support](#) on page 4).



Windows Systems Only: If the system where you installed the Web Access Server experiences hardware failure, reinstall the Web Access Server on a new system. If you deployed reports (a configuration task), run the `deploytool` command from the system on which the OVPI database is installed to redeploy reports to the Web Access Server. See the *Performance Insight Reference Guide* for more information about the `deploytool` command.

Task 7: Install other OVPI components as necessary

To install Client Applications, see [Installing Only the OVPI Clients](#) on page 144.

To install Remote Pollers, see [Installing the Remote Poller Component](#) on page 147.

Installing Only the OVPI Clients

OVPI clients provide the interface between OVPI and its users, and are installed as a group on any networked system. For a list of the OVPI clients, see [OVPI Clients](#) on page 18.

Task 1: Start the OVPI installation program

- 1 If you did not start the OVPI Installation Program, start it now.
- 2 The Setup window opens. Select **OVPI 5.2.0** from the Install section of the window.
- 3 The Welcome window opens. Read the Welcome window and click **Next** to continue.
- 4 The License Agreement window opens. Accept the license agreement and click **Next** to continue.

 You must accept the license agreement to proceed. If you click **Cancel**, you will be prompted to confirm your rejection of the license agreement and installation ends.

Task 2: Select the OVPI components to install

The Component Selection window opens. Use the window to select the components to install.

- 1 Click to select **OVPI Clients** from the Install section of the window. Deselect any other components.
- 2 Click **Next** to continue.

Task 3: Specify an installation directory for the OVPI software.

 If you installed another OVPI component on this system, you provided directory information. Continue to [Task 4](#).

In the Destination Folder window, specify the directory to which the OVPI software will be installed. The destination directory can be an NFS mounted directory, a UNIX soft link, a UNIX hard link, or a Windows mapped drive.

- 1 Accept the default destination directory, or identify a different directory. The pathname cannot contain any spaces.

- If the destination directory does not already exist, the Installation Program creates it.
- If the destination directory does exist and contains data, a message warns you that the directory is not empty.
- If the destination directory is located on a file system that the Installation Program cannot access, a message warns you. You cannot continue the installation until you supply a valid destination.

2 Click **Next** to continue. The Database Selection window opens.

Task 4: Specify the information needed to access the Web Access Server

The Remote Web Access Server Settings window opens. Use the window to enter information about where the Web Access Server will be installed.

1 Accept the defaults or specify values for the following parameters:

- **Web Access Server Host:** Type the name of the Web Access Server.
- **Web Access Server Port:** Type the port number for the Web Access Server.

2 Click **Next** to continue.

Task 5: Review the installation information

In the Summary window, review the installation selections.

1 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary window.

2 Click **Install** to continue. The Installation Progress window opens.

Task 6: Finish the installation

In the Installation Progress window you can view the status of the installation as it occurs. After the installation process is completed, information about whether the installation was successful is displayed.

- If the OVPI installation completed successfully, click **Done**.
 - UNIX Systems: the installation is complete.
 - Windows Systems: reboot the system to complete installation.
- If the OVPI installation was unsuccessful:

- a Click **Details** at the bottom of the Installation Progress window for additional information.
- b Contact Support (see [Support](#) on page 4).

Task 7: Install other OVPI components as necessary

To install Remote Pollers, go to [Installing the Remote Poller Component](#) on page 147.

Installing the Remote Poller Component

If you installed OVPI Performance Manager on *this* system, you do not need to install the Remote Poller component. It is installed with OVPI Performance Manager. Remote Poller systems do not use Performance Manager.

Task 1: Start the OVPI installation program

- 1 If you have not already started the OVPI installation Program, start it now. See [Starting the Installation Program](#) on page 111.
- 2 The Setup window opens. Select **Remote Poller** from the Install section of the window.
- 3 The Welcome window opens. Read the Welcome window and click **Next** to continue.
- 4 The License Agreement window opens. Accept the license agreement and click **Next** to continue. You must accept the license agreement to proceed. If you click **Cancel**, you will be prompted to confirm your rejection of the license agreement and installation ends.

Task 2: Specify an installation directory for the OVPI components



If you already installed another OVPI component on this system, you provided directory information. Continue to [Task 3](#).

In the Destination Folder window, specify the directory to which the OVPI software will be installed. The destination directory can be an NFS mounted directory, a UNIX soft link, a UNIX hard link, or a Windows mapped drive.

- 1 Accept the default destination directory, or identify a different directory. The pathname cannot contain any spaces.
 - If the destination directory does not already exist, the Installation Program creates it.
 - If the destination directory does exist and contains data, a message warns you that the directory is not empty.
 - If the destination directory is located on a file system that the Installation Program cannot access, a message warns you. You cannot continue the installation until you supply a valid destination.

- 2 Click **Next** to continue. The Database Selection window opens.

Task 3: Supply information about the database

The Remote Management Server Settings window opens. Use the window to supply information necessary to locate and download system information necessary to connect to your remote OVPI database.

- 1 Specify information for the following parameters:
 - **Remote Management Server Host:** Type the name of the database host.
 - **Remote Management Server Port:** Type the HTTP port number for the database host.

This information is used to allow the remote poller system to automatically connect with the OVPI server running Performance Manager. The first time they connect, an information block is downloaded from the OVPI server and saved.

Task 4: Configure polling collections

The Performance Manager Settings window opens. Use this window to identify the cache directory used to store collected data before it is placed into the database. This can prevent data loss when the database is shut down for a short period.

- 1 Accept the default directory or type a fully-qualified directory path to be used for caching polled data.
 - ▶ For collections to work properly, the disk partition on which the cache directory resides must have 5% plus an additional 512 MB of free space. For example, if the disk partition is 10 GB, it must have 1 GB of free space.
- 2 If needed, click **Advanced** to open the Advanced OVPI Configuration window, where you can specify the directory in which the log files will reside.
 - a Accept the default path, which creates a log directory under the directory into which you installed OVPI (certain log files will be maintained there, regardless of the directory you specify), or type the directory path in which the log files will reside.

- b Click **OK** to apply changes and return to the Performance Manager Settings window.
- 3 Click **Next** to continue.

Task 5: UNIX systems only: Create or modify the operating system account

The Operating System User for Performance Manager window opens. Use the window to identify an operating system account and group named trendadm, whose purpose is to preserve the environment in which OVPI will run.



Do not confuse the trendadm account used to log on to the operating system with the trendadm account created later, used to log on to the Web Access Server application.

The window prompts you for different information depending on whether the operating system and group account already exist.

- If the operating system account and group do not exist, the Create OS user window opens.

To create a password for the trendadm account by typing values for the following:

- a **Password:** The password must at minimum be one character in length, has no limit on maximum length, and may contain any character. HP recommends that you adhere to your company's policy for password creation.
- b **Confirm Password:** Retype the password.

Click **Next** to continue.

- If the operating system account and group exist, the Existing OS User window opens.

Click one of the following:

- **Modify user environment:** This parameter updates the trendadm account's .profile or .cshrc with the OVPI environment variables (COLLECT_HOME, DPIPE_HOME, DPIPE_TMP, and TREND_LOG).
- **Do not modify user environment:** This parameter will not update the account's .profile or .cshrc with the OVPI environment variables. If you select this option, you must manually add the OVPI environment variables later.

Click **Next** to continue.

Task 6: Review the installation information

In the Summary window, review the installation selections.

- 1 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary window.
- 2 Click **Install** to continue. The Installation Progress window opens.

Task 7: Finish the installation

In the Installation Progress window you can view the status of the installation as it occurs. After the installation process is completed, information about whether the installation was successful is displayed.

- If the OVPI installation completed successfully, click **Done**.
 - UNIX Systems: the installation is complete.
 - Windows Systems: reboot the system to complete installation.
- If the OVPI installation was unsuccessful:
 - a Click **Details** at the bottom of the Installation Progress window for additional information.
 - b Contact Support (see [Support](#) on page 4).

The Remote Poller does not poll devices until you configure its polling policy. To configure the polling policy, use the Polling Policies application in the Management Console. For more information, see the *HP OpenView Performance Insight Administration Guide*.

Installing OVPI Clients Only

You can install only the OVPI clients on any system in a standalone or distributed environment without installing any other OVPI components on that system. This type of install is termed a client-only install, and gives users the ability to access the Web Access Server for reporting and administration capabilities from local workstations.

In a client-only installation, you cannot use the following applications from the Management Console Tools menu: Catalog Manager, MIB Browser, SNMP Discovery, Type Discovery, and Package Manager. You cannot register a new data table, property table, or automatically add a collection to the database. For full functionality, OVPI Performance Manager must also be installed,

To install the clients only, follow the instructions provided at [Installing Only the OVPI Clients](#) on page 144.

6 Post-Installation

Apply a Service Pack

After you install OVPI, you should check for service packs for your OVPI system. If available, you should download and apply the most recent service pack. It includes any previous service packs.

You must have an HP Passport ID to access service packs. For information about how to obtain an HP Passport ID, see [Support](#) on page 4.

To locate the most recent service pack for this release

- 1 Go to the following url:
www.openview.hp.com/downloads/index.html
- 2 Click **Software patches**.
The HP Passport sign-in window opens.
- 3 Enter your HP Passport ID and log on.
- 4 Navigate to the Performance Insight software patches and download the service pack.

Use a Common Character Set Across Distributed Systems

In a distributed configuration, the central database server, satellite database servers, and polling systems can be different platforms. Because the default database character sets may differ between operating systems, make sure that all database instances and OVPI clients use a common character set.

Root Permission for Certificate Management Application

The Certificate Management application uses `ovcert` and `ovconfchg` programs present in the `/opt/OV/bin` directory. These programs are used for managing security certificates on the system. For more information, see the *HP OpenView Performance Insight 5.2 Administration Guide*. Root privilege is required to run these programs. Because the Certificate Management application is usually launched by **trendadm** user who has no root privileges, run the `ovswitchuser.sh` script. If you plan to run the programs manually, you do not need to run the script.

Perform Configuration Tasks

The immediate configuration tasks you must perform include the following:

- 1 Install the report packs on the central database server and deploy them to the Web Access Server.

A report pack is a collection of reports that analyze performance data. A datapipe contains directives for OVPI to use when collecting the data. Installing the datapipe configures OVPI to collect a specific type of performance data at a specific polling interval. Installing the report pack configures OVPI to summarize and aggregate the data collected by the datapipe. To install report packs and datapipes, use the OVPI Package Manager, an application supplied by the Management Console client application. There are many types of reports to choose from. Advanced users also have the option of creating their own reports. Before installing any report pack, see the user guide for the report pack. If your configuration has more than one Web Access Server, deploy the reports to each one. Do not install datapipes on the central database server unless the central server is polling.

- 2 Discover the network on the satellite database servers for those nodes that you plan to poll. The discovery process involves running a utility that determines if there is a device at a specific IP address, if the device is

SNMP-manageable, and if so, what kind of device it is (router, hub, or switch). This information is used to populate and update tables in the OVPI database instance.

- 3 Install report packs and datapiques on the satellite database servers, but do not deploy them. Make sure to install the same report packages on the satellite database servers that you installed on the central database server. Disable polling if a satellite database server is not going to be polling devices.
- 4 Run type discovery on the satellite database servers.
- 5 In a distributed configuration, configure report packs and polling policies for the distributed configuration. For example, you must modify the report package polling policies, located on the satellite database servers, so that the policies are collecting data from the system on which the remote poller component is located.
- 6 Other types of configuration tasks include the following:
 - Configuring the trendtimer utility to schedule activities to run at specific times
 - Creating data collections (types and sources of data)
 - Configuring polling policies
 - Configuring users and groups
 - Creating views for presenting data
 - Configuring the Web Access Server
 - Configuring the OVPI database
 - Scheduling and generating reports

All configuration tasks are explained in detail in the *HP OpenView Performance Insight Administration Guide*. You should read this guide immediately following OVPI installation.

Back Up Your System

After you install OVPI, you should back up both the database and the OVPI installation. For instructions, see the *HP OpenView Performance Insight Administration Guide*.

Confirming that OVPI is Running and Collecting Data

To verify that OVPI is running and collecting data:

- **Windows Systems**

- 1 From the Control Panel window, double-click **Administrative Tools**.

The Administrative Tools window opens.

- 2 Double-click the **Services** icon.

- 3 Locate the following OVPI Services in the Services list:

- OVPI Timer

- OVPI HTTP Server

The Status should say Started.

- 4 If the service is stopped, right-click the service name and click **Start** on the shortcut menu.

- **UNIX Systems**

Type the following at the command line:

```
ps -ef | grep trendtimer
```

The output will look similar to the following:

```
trendadm 1755      1  0  Apr 13  ?           0:10 /usr/OVPI/bin/
trendtimer -s /usr/OVPI/lib/trendtimer.sched
```

If the process is not listed, OVPI is not running. The path of program depends on where OVPI is installed.

You can also verify the jrun process (OVPI HTTP Server service on Windows). Although jrun is not required for OVPI to collect data successfully, it is required for activities using the web server. For example, to view reports.

Type the following command:

```
ps -ef | grep jrun
```

The output will look similar to the following:

```
root 22596      1  0 01:45:44 pts/ta    0:43 /usr/OVPI/jrun/  
bin/jrun -nohup -start piweb
```

If the process is not listed, the web server is not running. The path of program depends on where OVPI is installed.

Starting and Stopping OVPI

The *HP OpenView Performance Insight Administration Guide* provides instructions for starting and stopping each OVPI component.

Troubleshooting OVPI Installation Problems

OVPI Log Files

All OVPI log files are located at `$DPIPE_HOME/log/`

The log file used during installation is named `install.log`. If you have problems during installation, check this log.

For information about how to use OVPI log files, see the *HP OpenView Performance Insight Troubleshooting Guide*, which is available online at the Support web site (see [Support](#) on page 4).

Windows Only: NNM Integration

On Windows systems only, when installing OVPI on a system running NNM, you may see `ERROR` and `WARNING` messages during the OVPI installation. You can ignore them.

- During installation, you may see the error:

```
failed to copy the file, msvcr70.dll, into the OVPI "bin"
directory
```

- After installation completes, the Details window Error tab displays this message:

```
msiexec failed with exit status: 1603
```

The Warning tab displays one or both of these warning messages:

```
Higher version of package might have been installed. Failed to
install
```

```
packageHPOvXpl-02.50.100-WinNT4.0-release.msi:{C9C24CC5-23CE-
4B55-8BC0-6D5785924842}
```

```
Higher version of package might have been installed. Failed to
install
```

```
packageHPOvJxpl-02.50.100-WinNT4.0-release.msi:{48C97C18-5AFA-
40FE-B51D-A4EECB02808}
```

7 Uninstalling OVPI

You must uninstall OVPI *before* you uninstall the RDBMS.

Uninstalling OVPI removes all OVPI-related tablespaces and the `dsi_dpiper` user from the database used by OVPI. The database itself remains.

OVPI Uninstall Prerequisite Tasks

Perform the following tasks before uninstalling OVPI.

- Stop the OVPI Timer
- Stop the OVPI HTTP Server
- Wait for OVPI processes to complete
- Verify that Sybase is still running

Note the directory locations for the following environment variables. These directories must be manually removed after the uninstall.

- `DPIPE_HOME`
- `DPIPE_TMP`
- `TREND_LOG`
- `COLLECT_HOME`

OVPI Uninstall Procedure

Use the OVPI Uninstall Wizard to uninstall OVPI. It removes all OVPI components from the local system, as well as files that were added to the system during OVPI installation. It does not remove files that were created by users or applications — log files and reports, for example.

With the exception of starting the Uninstall Wizard, the procedure for uninstalling OVPI is the same for Windows and UNIX systems.

Task 1: Start the OVPI Uninstall Wizard.

- 1 Log on to the local system.

Windows Systems:

- a Log on using the Administrator account.
- b From the Windows Desktop, click **Start**. Point to Programs, point to HP OpenView, point to Performance Insight, and click **Uninstall**.

UNIX Systems:

- a Log on as root.
- b Type the following command:

```
$DPIPE_HOME/bin/uninstall
```

In this instance, *\$DPIPE_HOME* is the directory into which you installed OVPI.

- 2 The Welcome window opens. Click **Next** to continue.
- 3 If the OVPI database schema is installed on the system where you are uninstalling OVPI, go to [Task 2](#).
- 4 If the OVPI database schema is not installed on the system where you are uninstalling OVPI go to [Task 3](#).

Task 2: Supply the Sybase Administrator password (local Sybase database only)

The Sybase Administrator Password window opens. Do one of the following:

- If you set the Sybase Administrator password, type the password in the Sybase Administrator (SA) Password box and click **Next** to continue.

- If you did not set the Sybase Administrator password, leave the Sybase Administrator (SA) Password box blank and click **Next** to continue.

Task 3: Review and uninstall

The Summary window opens. Use the window to review the components to be uninstalled.

- 1 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary window.
- 2 Click **Uninstall** to continue.

Task 4: Finish the uninstall

The Uninstall Progress window opens. The window shows the status of the uninstall as it occurs. Following completion, the window reports whether installation was successful.

- If the OVPI uninstall completed successfully:
 - a Click **Done**.
 - UNIX Systems: the uninstall is complete.
 - Windows Systems: reboot the system to complete the uninstall.
 - b Continue to [OVPI Post-Uninstallation Tasks](#) on page 165.
- If the OVPI uninstall was unsuccessful:
 - a Click the **Details** button at the bottom of the Uninstall Progress window for additional information.
 - b Contact Support (see [Support](#) on page 4).

Uninstalling OVPI Manually (Windows Systems)

If OVPI fails to uninstall on a Windows system, you can manually uninstall OVPI. The OVPI uninstall may fail if:

- OVPI processes are still running. This could cause a file to fail to be deleted and cause warnings on uninstall.
- Something catastrophic happens during uninstall, such as a power failure
- The OVPI database is not running or the uninstall fails to connect to the database during the process.

Task 1: Stop OVPI services

- 1 From the Control Panel window, double-click **Administrative Tools**.
The Administrative Tools window opens.
- 2 Double-click the **Services** icon.
- 3 From the Services window, right-click **OVPI Timer** and select **Stop** from the menu.
- 4 From the Services window, right-click **OVPI HTTP Server** and select **Stop** from the menu.

Task 2: Remove the Web Access Server

- 1 Open a command prompt window.
- 2 Navigate to the following directory:

```
installation_directory\jrun\bin
```

In this instance, *installation_directory* is the directory into which you installed OVPI.

- 3 Type the command:

```
jrunsvc -remove "OVPI HTTP Server"
```

Task 3: Remove Windows Registry entries

Using the Registry Editor, remove the following Windows Registry entries:

- 1 From HKEY_LOCAL_MACHINE → SOFTWARE, expand the Macromedia folder, the Install Data folder, and remove the following entry:

JRun4

- 2 From HKEY_LOCAL_MACHINE → SOFTWARE → Hewlett-Packard → HP OpenView, remove the following entry:

Performance Insight

Task 4: Remove the OVPI Timer service

- 1 Open a command prompt window.
- 2 Navigate to the following directory:

installation_directory\bin

In this instance, *installation_directory* is the directory into which you installed OVPI.

- 3 Type the command:

trendtimer -r

Task 5: Remove specific environment variables

- 1 From the Control Panel window, double-click **System**. The System Properties dialog box opens.
- 2 Click the **Advanced** tab, and then click the **Environment Variables** button. The Environment Variables dialog box opens.
- 3 Delete the following variables:
 - COLLECT_HOME
 - DPIPE_HOME
 - DPIPE_TMP
 - TREND_LOG
- 4 Edit the PATH environment variable by removing anything that relates to OVPI.

5 Click **OK** when done.

Task 6: Restart your system.

OVPI Post-Uninstallation Tasks

To prevent potential problems if you reinstall OVPI, HP recommends that you delete the following directories:

- The OVPI directory
- The .ovpi directory

Delete the OVPI Installation Directory

The OVPI directory is the directory into which you installed OVPI.

The OVPI Uninstall Wizard removes files from the OVPI directory that were installed by the OVPI Installation Program. It does *not* remove generated files (log files), files created by users, or reports deployed for any installed report packs that were placed in this directory.



If there are reports or data in the OVPI directory that you want to save, move those files to another location before continuing.

To delete the OVPI directory, follow these steps.

- UNIX Systems:
 - a Open a new shell window on the system where OVPI was installed.
 - b Type the following command:

```
rm -rf $DPIPE_HOME/ovpi
```

In this instance, \$DPIPE_HOME is the directory into which you installed OVPI. For example, if you installed OVPI in the /data directory, you would type:

```
rm -rf /data/ovpi
```

- Windows Systems: perform one of the following:
 - Windows Explorer: locate and right-click the **Performance Insight** directory. Select **Delete** from the menu.
 - Command Prompt window: type the following command:

```
rmdir /S $DPIPE_HOME
```

In this instance, *\$DPIPE_HOME* is the directory into which you installed OVPI.

Remove Excess Directories

Manually remove the directories that contain the following environment variables:

- DPIPE_TMP
- TREND_LOG
- COLLECT_HOME

Delete the .ovpi Directory

The .ovpi directory stores a user's custom settings. It is present only if the user has run Report Builder, Report Viewer, or Web Access Server.



Users should remove their own .ovpi directory.

The .ovpi directory is a hidden file. Therefore, you need to make it visible to remove it. On Windows, modify the directory view to show hidden files and directories by setting the Tools > Folder Options, View tab and selecting the "Show hidden files and folders" radio box.

To delete the .ovpi directory, do the following:

- UNIX Systems:

The .ovpi directory is located in the UNIX home directory.

- a Open a new shell window on the system where OVPI was installed.
- b Type the following command from the home directory:

```
rm -rf .ovpi
```

- Windows Systems:

The .ovpi directory is located at %SystemDrive%\Documents and Settings\username. Navigate to that directory and do one of the following:

- Windows Explorer: Right-click the .ovpi directory and select **Delete** from the menu.

- Command Prompt window: Type the following command:
`rmdir /S .ovpi`

Uninstall the RDBMS

Continue by uninstalling the RDBMS. See [Chapter 8, Uninstalling the Sybase RDBMS](#).

8 Uninstalling the Sybase RDBMS

Uninstalling Adaptive Server 15.0.1 on Windows

- 1 Shut down all servers prior to running the uninstall program.
Stop all services using the Services option from the Control Panel. If any of the services are marked to automatically start, change them to be started manually. Restart the system to release any DLLs that are already loaded into memory.
- 2 Run Start > Programs > Sybase > Adaptive Server Enterprise > Server Config, and click remove **Remove Server**.
- 3 Launch the uninstall program using the Change/Drop Programs option from the Control Panel.
- 4 Once the Uninstall Welcome window displays, click **Next** to continue.
- 5 The component selection window displays with everything selected.
Deselect components by clicking the check box and erasing the check mark. Click **Next** to continue.
If there is SySAM Network License Server installed on this machine, it may be used by other Sybase products. Uncheck this component unless you know no one is using this License Server.
- 6 A summary window displays what is about to be uninstalled. Click **Next** to continue.
- 7 A window displays indicating that the uninstallation process is being performed. There is no progress bar.
One or more pop-up displays may occur indicating that a file was modified after it was installed and requesting confirmation that it should be deleted.

- 8 If there are any user created files left over from the uninstall, the uninstaller will prompt you to remove them.
- 9 When the uninstall process has completed a final window displays. Click **Finish** to exit the uninstall program.
- 10 The uninstall program does not remove the DSLISTEN and DSQUERY environment variables. Remove them, using the system option from the Control Panel.

Uninstalling Adaptive Server 15.0.1 on UNIX

- 1 Shut down all servers prior to running the uninstall program. (stopping Sybase remains same so what ever there install guide for stop Sybase can be retained.)
- 2 The uninstall program is located in `uninstall/ASESuite`.
Launch the uninstall program by following these steps:
 - a Change to the SYBASE directory.
 - b Execute the uninstall program by entering:

```
$(SYBASE)/uninstall/ASESuite/uninstall
```
- 3 Once the Uninstall Welcome window displays, click **Next** to continue.
- 4 The component selection window displays with everything selected.
Deselect components by clicking the check box and erasing the check mark. Click **Next** to continue.

If there is SySAM Network License Server installed on this machine, it may be used by other Sybase products. Uncheck this component unless you know no one is using this License Server.
- 5 A summary window displays what is about to be uninstalled. Click **Next** to continue.
- 6 A window displays indicating that the uninstallation process is being performed. There is no progress bar.

One or more pop-up displays may occur indicating that a file was modified after it was installed and requesting confirmation that it should be deleted.
- 7 If there are any user created files left over from the uninstall, the uninstaller will prompt you to remove them.
- 8 When the uninstall process has completed a final window displays. Click **Finish** to exit the uninstall program.

9 Upgrading to Sybase 15.0.1

To use the new features introduced in Sybase 15.0.1, you must upgrade to Sybase 15.0.1.

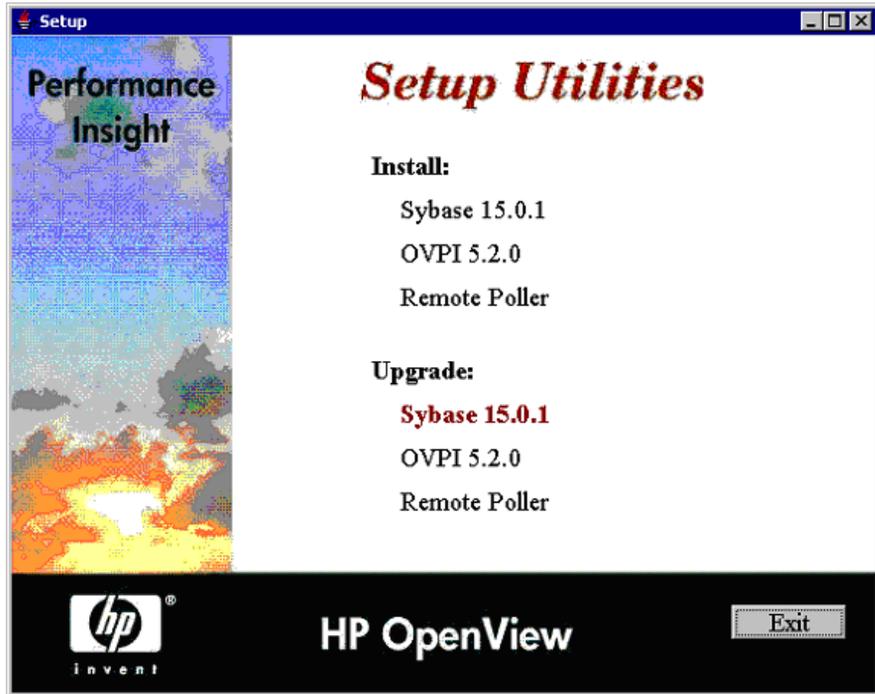
You can use the OVPI installer to upgrade HP-UX and Solaris systems. To upgrade a Windows system, use the dump and load method (see [Upgrading Sybase on Windows Systems](#) on page 183).

Upgrading Sybase on HP-UX and Solaris Systems

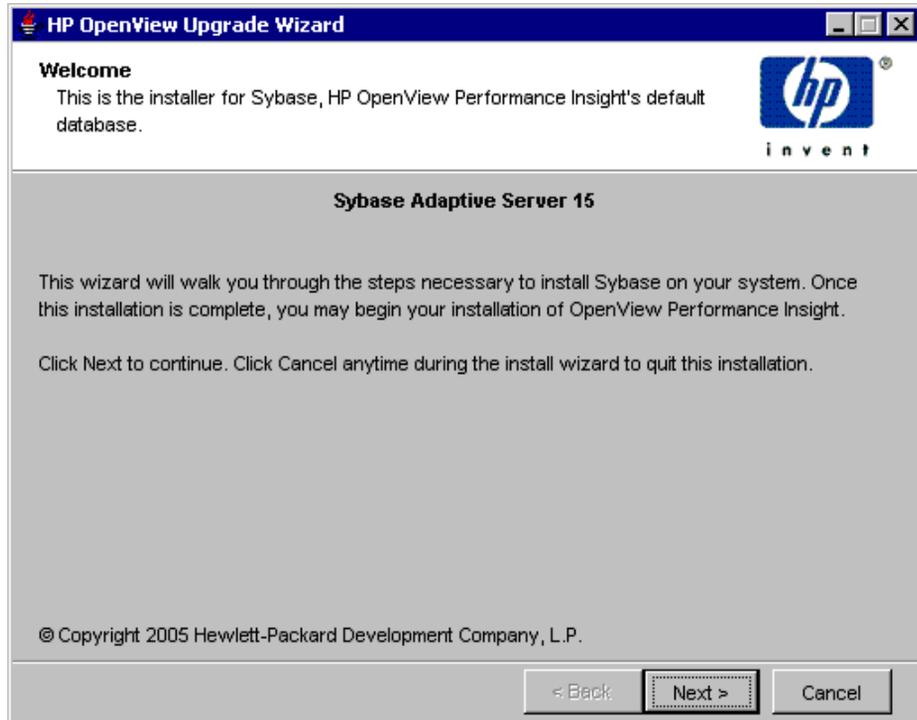
First make sure you updated your system with the latest Java patches (see [Verify that patches are running for Java](#) on page 29).

You can use the Upgrade Wizard to upgrade Sybase. Follow these steps:

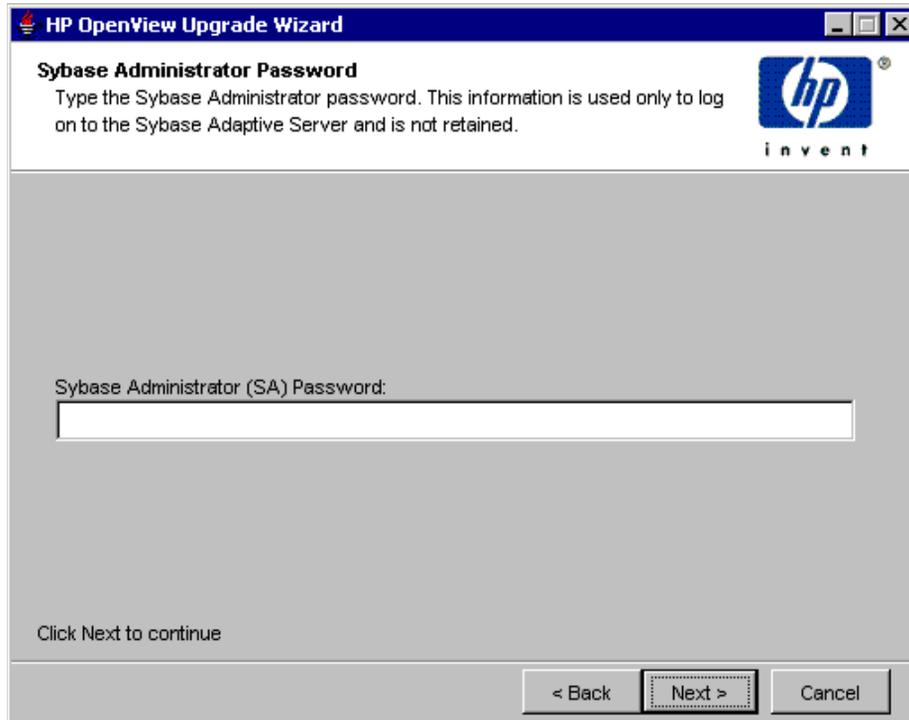
- 1 Run the Setup Utilities program from the product CD. The following screen appears:



- 2 Under Upgrade, click **Sybase 15.0.1**. The Welcome screen opens.

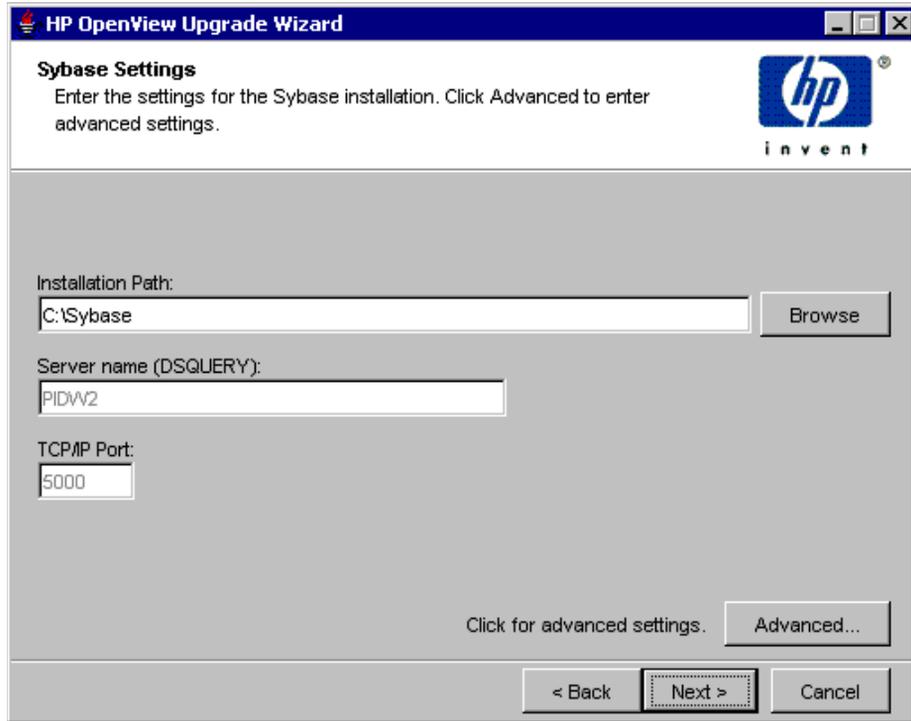


- 3 Click **Next**. The Sybase Administrator Password window opens.

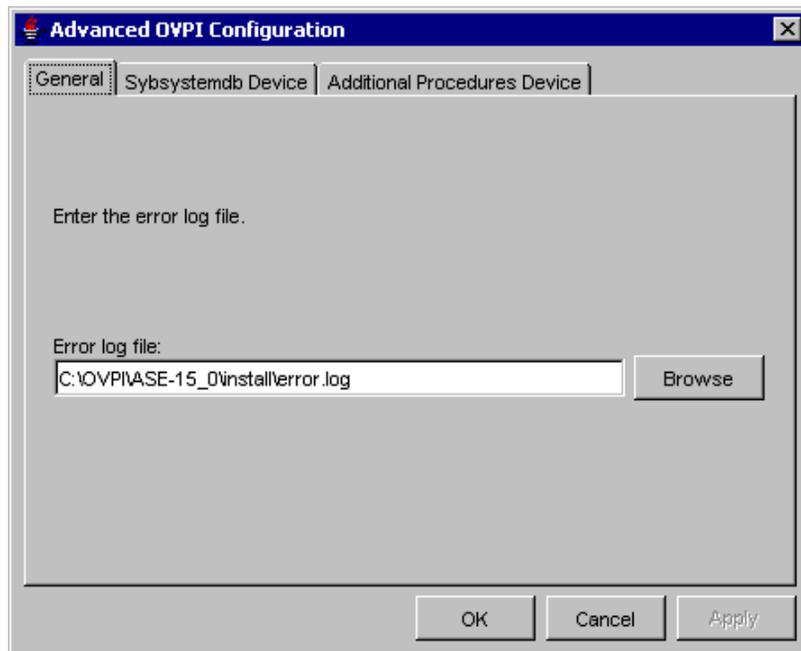


The screenshot shows a window titled "HP OpenView Upgrade Wizard" with a blue header bar. Below the header, the text "Sybase Administrator Password" is displayed in bold. A paragraph of text reads: "Type the Sybase Administrator password. This information is used only to log on to the Sybase Adaptive Server and is not retained." To the right of this text is the HP logo and the word "invent" below it. A large, empty text input field is positioned below the text, with the label "Sybase Administrator (SA) Password:" to its left. At the bottom of the window, there are three buttons: "< Back", "Next >" (which is highlighted with a dashed border), and "Cancel". The text "Click Next to continue" is located above the buttons.

- 4 Enter your password. The Sybase Settings window opens.

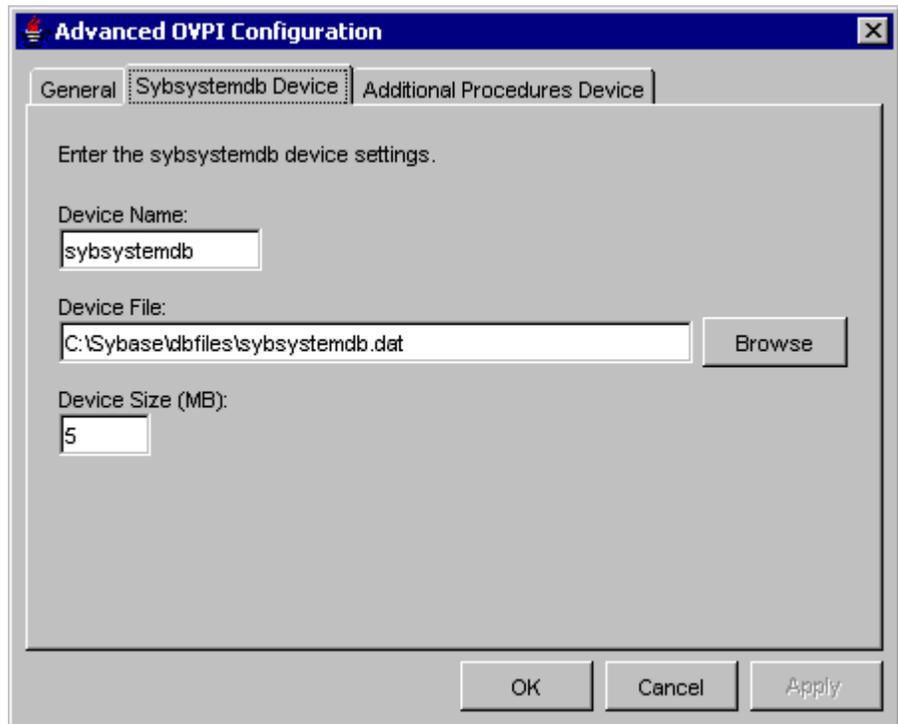


- 5 Enter the information asked for and click **Next**. The Advanced OVPI Configuration window opens.



Under the General tab, browse to the Error log file and click **Apply**.

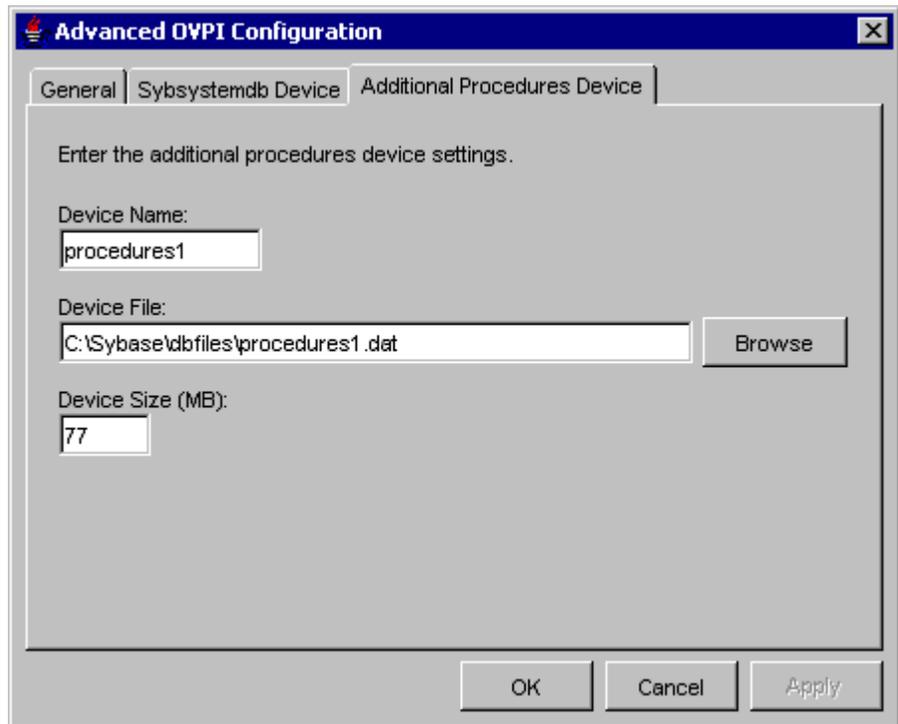
- 6 Under the Sysystemdb Device tab, enter the information asked for and click **Apply**.



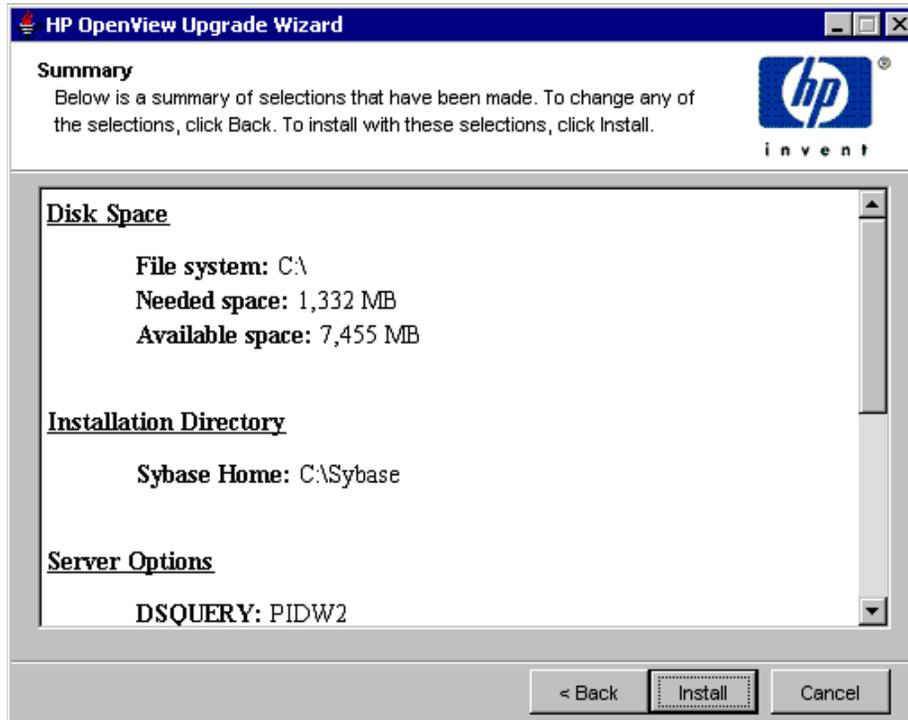
The image shows a dialog box titled "Advanced OVPi Configuration" with three tabs: "General", "Sysystemdb Device", and "Additional Procedures Device". The "Sysystemdb Device" tab is selected. The dialog contains the following fields and controls:

- Text: "Enter the sybssystemdb device settings."
- Label: "Device Name:"
- Text box: "sybssystemdb"
- Label: "Device File:"
- Text box: "C:\Sybase\dbfiles\sybssystemdb.dat"
- Button: "Browse"
- Label: "Device Size (MB):"
- Text box: "5"
- Buttons: "OK", "Cancel", and "Apply" (disabled).

- 7 Under the Additional Procedures Device tab, enter the information asked for and click **Apply**.

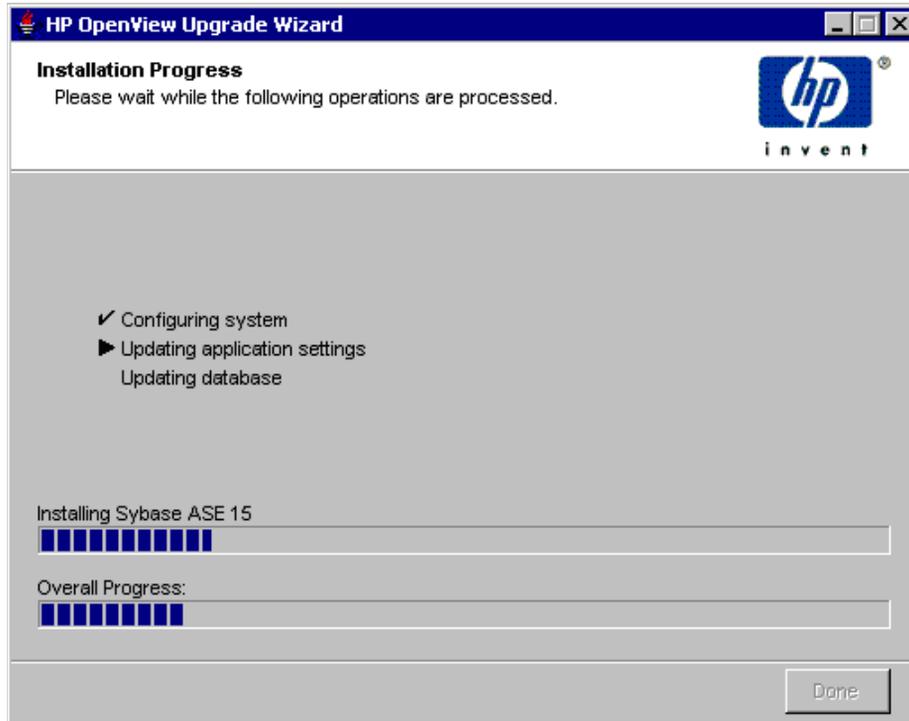


The Summary window opens.



- 8 Review the selections shown. Use the Back button to make corrections. Click **Install**.

The Installation Progress window opens.



The installation should complete.

If the Upgrade Wizard does not complete the upgrade, use the manual upgrade method (see [Upgrading Sybase on Windows Systems](#) on page 183).

Upgrading Sybase on Windows Systems

The Upgrade Wizard is not available for Windows systems. You must use the following manual process.

- 1 Stop the trend timer and wait for all OVPI processes to halt.
- 2 From your existing Sybase 11.9 system, do the following:
 - a Back up the file C:\Sybase\SERVER_NAME.cfg
 - b Log in to isql, run the following commands, and store the values of the parameters.

```
sp_configure 'recovery interval in minutes'  
go  
sp_configure 'total memory'  
go  
sp_configure 'number of user connections'  
go  
sp_configure 'number of locks'  
go  
sp_configure 'max online engines'  
go  
sp_configure 'max network packet size'  
go  
sp_configure 'additional network memory'  
go  
sp_configure 'number of devices'  
go  
sp_configure 'procedure cache'  
go  
  
sp_configure 'number of open objects'  
go  
sp_configure 'number of open indexes'  
go  
  
sp_cacheconfig 'default data cache'  
go
```

- 3 Dump the database dpipe_db on the Sybase 11.9 database.
 - a Configure and start the Sybase backup server.



The backup server should have been configured by default. Sybase 11.9 installer configures it by default. You can check in the services window for <MachineName_BS> service name from the list of services available.

If the backup server is missing, you can create it. Follow these steps to create the backup server.

- Launch 'Programs - Sybase - Server Config'.
- Select **Backup Server** in the left side pane.
- Click **Create Backup Server** in the right side pane.
- Click **Continue** in the Backup Server name window.
- Click **Network Addresses** and then click **Add**.
- In the Enter Connection window, add Connection Info as machine_name,port; for example, machine_name,5001.
- Click **OK, OK, and Continue**.

The backup server is ready.

- b Log in to isql as sa user and run the following commands. You must provide a valid path for the dump file.

```
dump transaction dpipe_db with no_log  
go
```

```
dump database dpipe_db to 'C:\DUMP\dpipe_db.dmp'  
go
```

- 4 Uninstall Sybase 11.9.
- 5 Upgrade to Windows 2003 if required. OVPI 5.2 is supported only on Windows 2003.
- 6 Install Sybase 15.0.1 with the OVPI 5.2 installer. Make sure the server name and port number are the same as those used in Sybase 11.9.
- 7 Manually configure the backup server. It is not created by default.
 - a Launch Programs > Sybase > Adaptive Server Enterprise > Server Config.
 - b Select **Backup Server** in the left side pane.

- c Click **Create Backup Server** in the right side pane. Name the backup server as SYB_BACKUP.
- d Click **Continue** in the Backup Server name window.
- e Click **Network Addresses** and then click **Add**.
- f In the Enter Connection window, add Connection Info as machine_name,port; for example, machine_name,5001.
- g Click **OK, OK, and Continue**.

The backup server is ready.

- 8 Create the dpipe_db database on Sybase 15.0.1.
 - a Create the data device, log device, and temp device. The size of this device should be the same as the size used in version 11.9. Change the file path names and device sizes in the following commands. The size here is in terms of 2K pages; for example, 409600 means 800 MB.



You should create the dbfiles folder under Sybase home directory. After creating this dbfiles folder, you can create the dpipe_db database.

Log in to isql as sa user and run the following commands.

```
print 'Creating the device dpipe_db0'
declare @vdevno int
select @vdevno = max(vdevno) + 1 from
master.dbo.sysdevices
disk init
name='dpipe_db0',physname='E:\sybase\dbfiles\dpipe_db0.da
t', vdevno = @vdevno ,size=409600
go

print 'Creating device dpipe_log0'
declare @vdevno int
select @vdevno = max(vdevno) + 1 from
master.dbo.sysdevices

disk init
name='dpipe_log0',physname='E:\sybase\dbfiles\dpipe_log0.
dat', vdevno = @vdevno ,size=204800
go

print 'Creating device dpipe_temp0'
```

```

declare @vdevno int
select @vdevno = max(vdevno) + 1 from
master.dbo.sysdevices

disk init
name='dpipe_temp0',physname='E:\sybase\dbfiles\dpipe_temp
0.dat', vdevno = @vdevno ,size=204800
go

```

- b Create the `dpipe_db` database. The size should be as it was in Sybase 11.9.

```

create database dpipe_db on dpipe_db0 = 800 log on
dpipe_log0 = 400
go
alter database tempdb on dpipe_temp0 = 400
go

```

- 9 Restore the config values in Sybase 15.0.1.

The total memory parameter in version 11.9 is called “max memory” in version 15.0.1.

The procedure cache percent parameter in 11.9 is called “procedure cache size” in 15.0.1.

Before setting the procedure cache size parameter, compute the value for size from percent. Use the following formula:

$$\text{procedure cache size} = \text{total memory} * \text{procedure cache percent} / 100$$

Login into isql and execute the following commands. Replace the A value with the values previously stored in Sybase 11.9 as shown in step 2, b above.

```

sp_configure 'allow updates to system tables', 1
go
sp_configure 'recovery interval in minutes', A
go
sp_configure 'max memory', A
go
sp_configure 'number of user connections', A
go
sp_configure 'number of locks', A
go

```

```

sp_configure 'max online engines', A
go
sp_configure 'max network packet size', A
go
sp_configure 'additional network memory', A
go
sp_configure 'number of devices', A
go
sp_configure 'procedure cache', A
go
sp_configure 'allow updates to system tables', 0
go

sp_configure 'number of open objects', A
go
sp_configure 'number of open indexes', A
go
sp_configure 'number of open partitions', 3000
go

sp_cacheconfig 'default data cache', A
go

```

10 Load the dump to Sybase 15.0.1.

```

load database dpipe_db from 'C:\DUMP\dpipe_db.dmp'
go

```

If there is an error, there will be no connection to the SYB_BACKUP server. Make sure that a SYB_BACKUP entry exists in the C:\Sybase\ini\sql.ini file. C:\Sybase is the Sybase install folder.

```

online database dpipe_db
go

```

11 Configure the dpipe_db and dsi_dpipe. Remember to set the appropriate password to the dsi_dpipe user.

```

print 'Setting bulkcopy, trunc and override options'
exec sp_dboption dpipe_db, bulkcopy, true
go
exec sp_dboption dpipe_db, trunc, true

```

```
go
reconfigure with override
go

print 'Adding a default user'
exec sp_addlogin dsi_dpipe, PASSWORD
go

print 'Adding required system roles to user.'
go
exec sp_role 'grant', 'sa_role', dsi_dpipe
go
exec sp_role 'grant', 'sso_role', dsi_dpipe
go

print 'Making the user the default for dpipe_db'
go
exec sp_defaultdb dsi_dpipe, dpipe_db
go

use dpipe_db
go

print 'Making dsi_dpipe the owner of dpipe_db database'
exec sp_changedbowner dsi_dpipe, true
checkpoint
go

exit
```

10 Upgrading to OVPI 5.2

You can upgrade to OVPI 5.2 if you currently have installed the latest service pack level (Service Pack 6 or later) of OVPI 5.1 or 5.1.1.

You can upgrade to OVPI 5.2 whether you have a standalone or a distributed environment. The installation process provided in this section applies to all environment. However, if you have a distributed environment, you must first upgrade your database schema. The instructions can be found in [Chapter 9, Upgrading to Sybase 15.0.1](#). Once you have upgraded your database, you can install the distributed components in any order.

The remote poller is upgraded separately from OVPI but the procedure is the same.

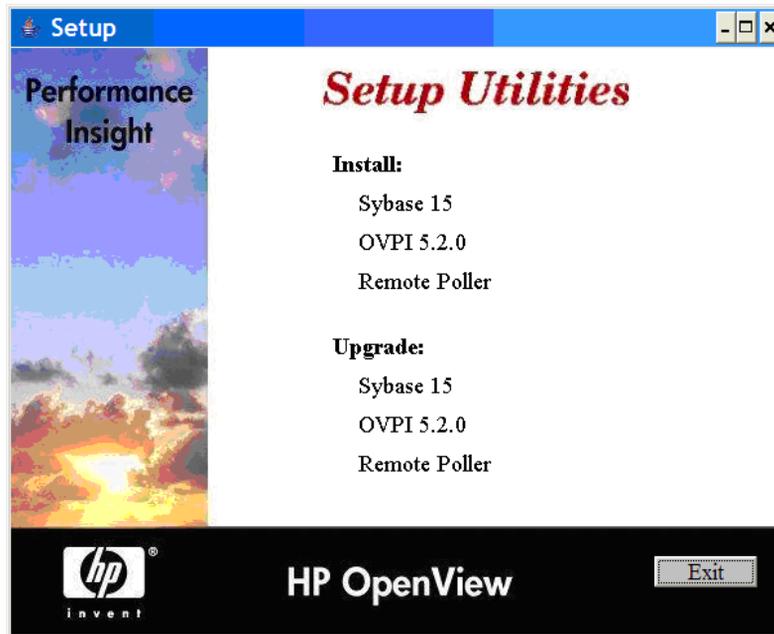
Required Java Patches for Your Operating System

OVPI 5.2 includes Java 1.4.2.13. Java will automatically load onto your system during the upgrade, replacing any previous Java versions that OVPI has installed.

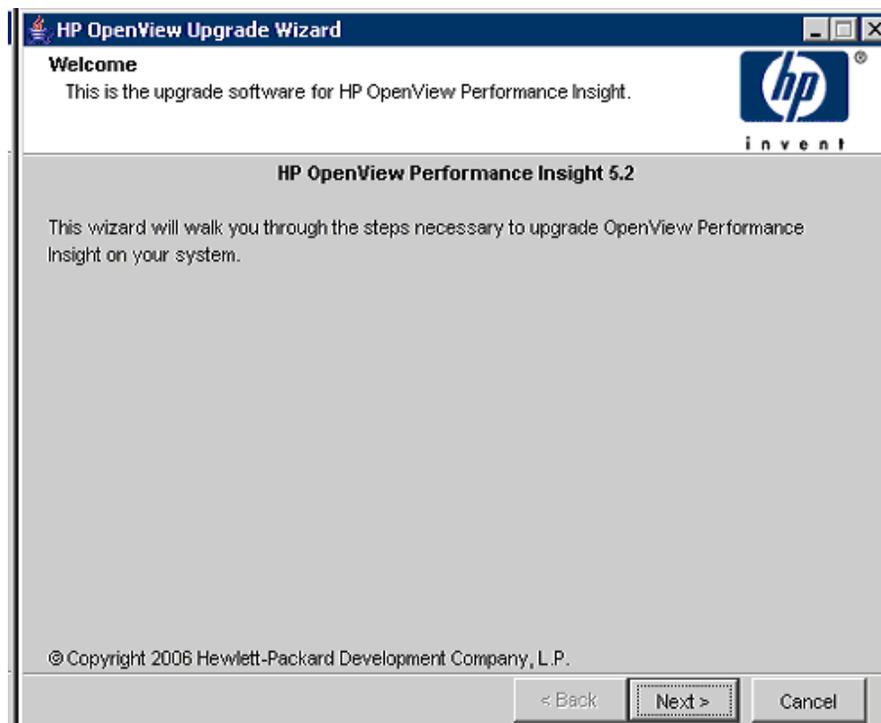
You must install the appropriate Java patches required for your operating system (see [Verify that patches are running for Java](#) on page 29).

Using the Wizard to Upgrade

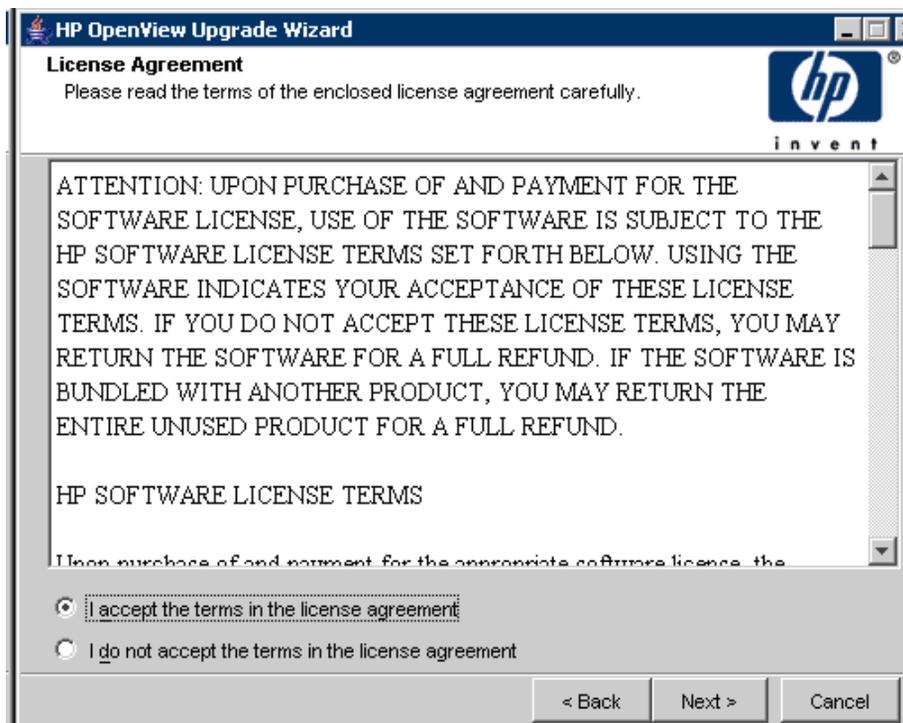
- 1 Run the Setup Utilities program from the product CD. The following screen appears:



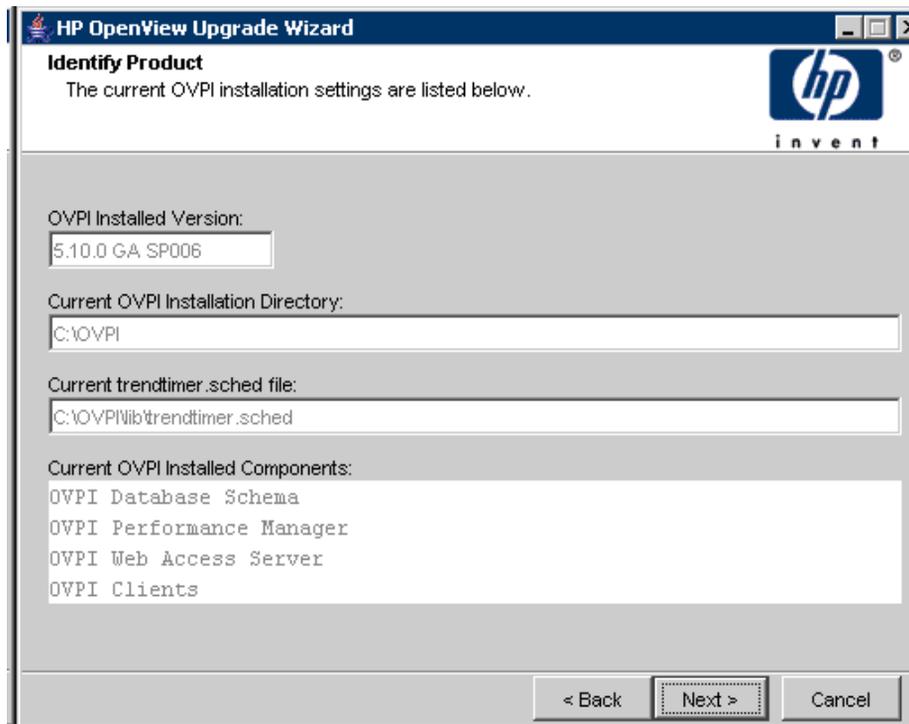
- 2 Select **Upgrade 5.2.0**. The installation wizard opens.



- 3 Click **Next**. The License Agreement window opens.

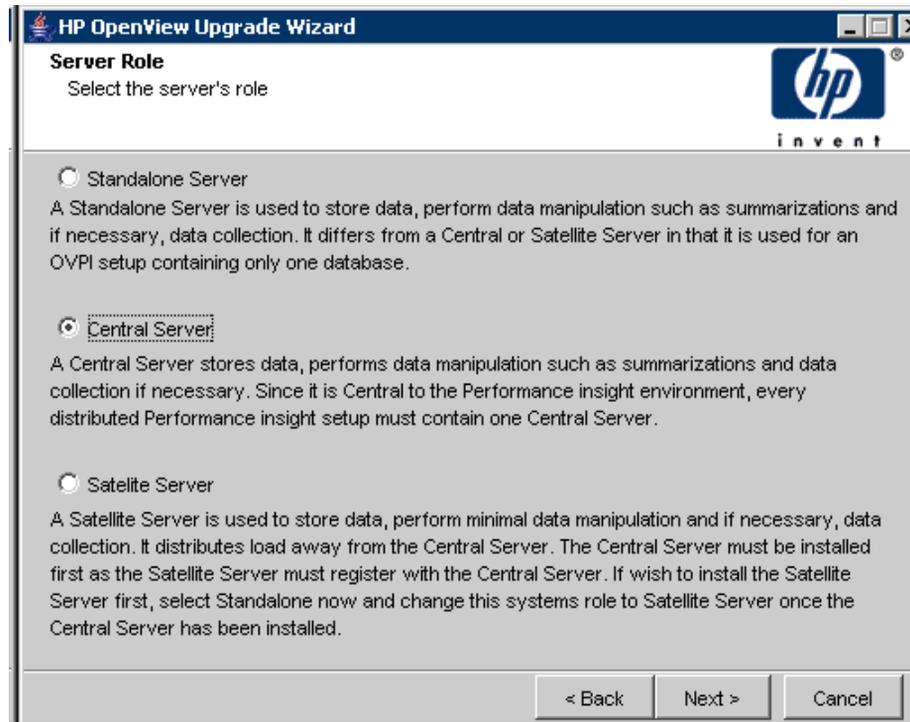


- 4 Accept the terms of the license agreement and click **Next**. The Identify Product window opens.



The Identify Product window displays information for the product currently installed, including the existing installed components. If you have OVPI version 5.1 SP 6 or above, you can upgrade to version 5.2.

- 5 Click **Next**. The Server Role window opens.



- 6 Select the environment on which you want to install OVPI.

If you select Satellite Server, the Central Server Registration window opens. Enter the host name and port number. Check if SSL is enabled.

HP OpenView Upgrade Wizard

Central Server Registration
Enter the information necessary to register with the Central Server.



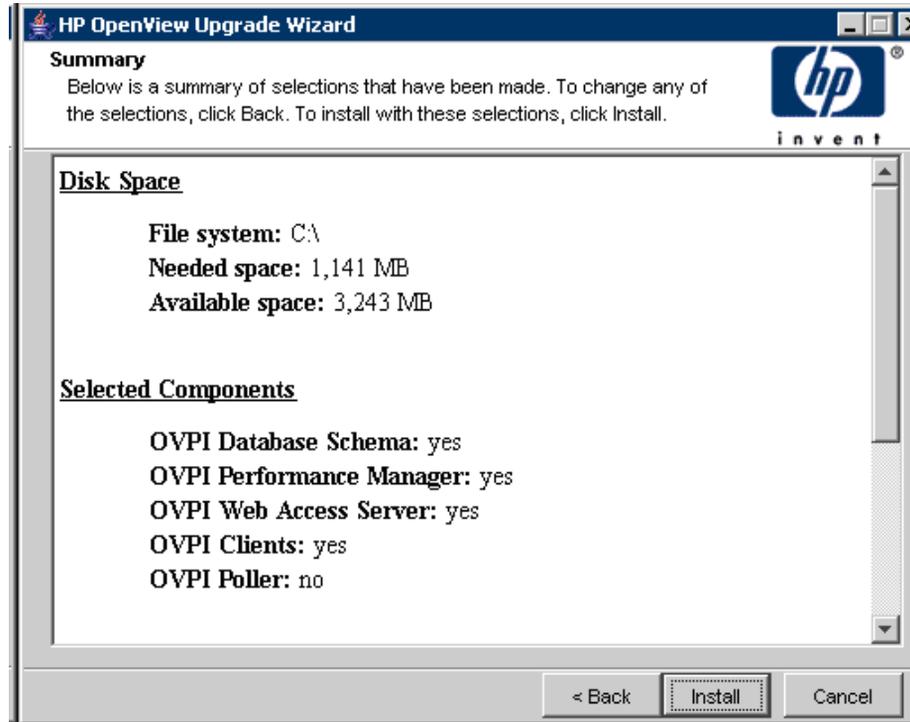
Central Server's Host Name:

Central Server's Port Number:

The Central Server is configured to use SSL

< Back Next > Cancel

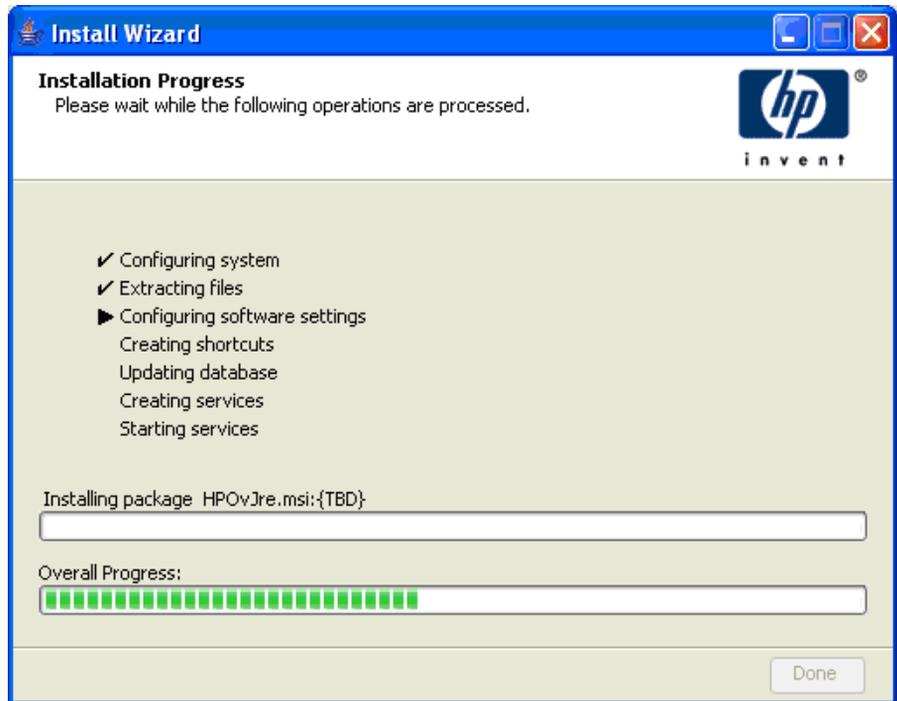
- 7 Click **Next**. The Summary window opens.



The Summary window displays information about the install that will be performed. You can make changes at this time by using the Back button.

You can choose to install only certain components of OVPI by making certain selections in the wizard. Your selections control the list of actions performed by the installer and the list of windows displayed by the wizard.

- 8 Click **Install**. The Installation Progress window opens.



The installation is complete.

Upgrading the Remote Poller

OVPI provides the ability to install or upgrade a remote poller separately from the OVPI installation.

The installation process for upgrading the remote poller is the same as the process for upgrading OVPI, except that the Database Role window does not appear.

11 The Sybase Interfaces File

The information in this chapter is supplied for reference purposes only. Any changes to the Sybase interfaces file should be made using the Management Console's System Management application. See the *Performance Insight Administration Guide* for more information about using this application.

Sybase uses a file called an **interfaces** file to locate the SQL Servers on the network. This appendix describes how to create or modify this file using dsedit.

You can find the Sybase interfaces file in the following locations:

- UNIX

The interfaces file is located in the Sybase home directory specified by your SYBASE environment variable; for example, /usr/Sybase. See [Create the Sybase Interfaces File on UNIX Systems](#) on page 200 for details.

- Windows

The interfaces file is located in C:\Sybase\ini\sql.ini, where C: is the location of the Sybase directory. See [Create the Sybase Interfaces File on Windows Systems](#) on page 203 for details.



Make sure that when you type the SQL Server name that it matches the entry in the Sybase interfaces file exactly.

Create the Sybase Interfaces File on UNIX Systems

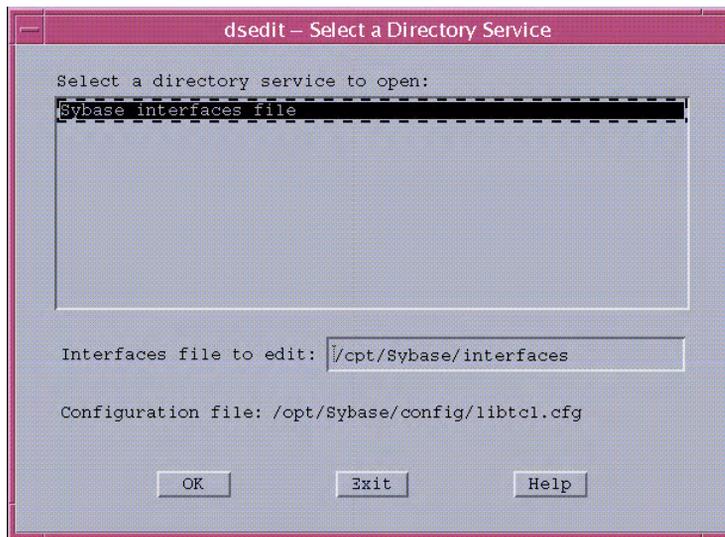
Use the dsedit utility to create the Sybase interfaces file for Sybase on UNIX systems.

To create the Sybase interfaces file:

- 1 Open a new shell window.
- 2 Type the following command:

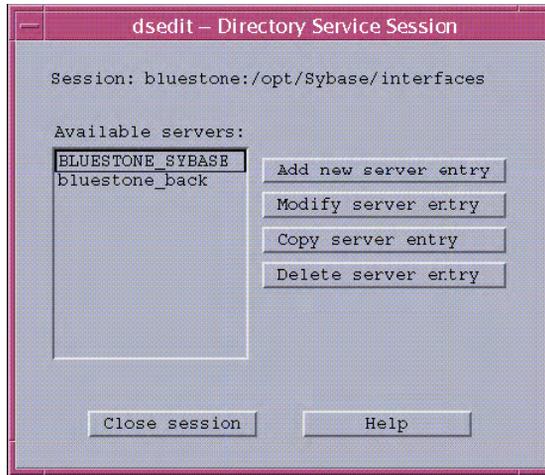
```
$SYBASE/bin/dsedit
```

The dsedit - Select a Directory Service dialog box opens.



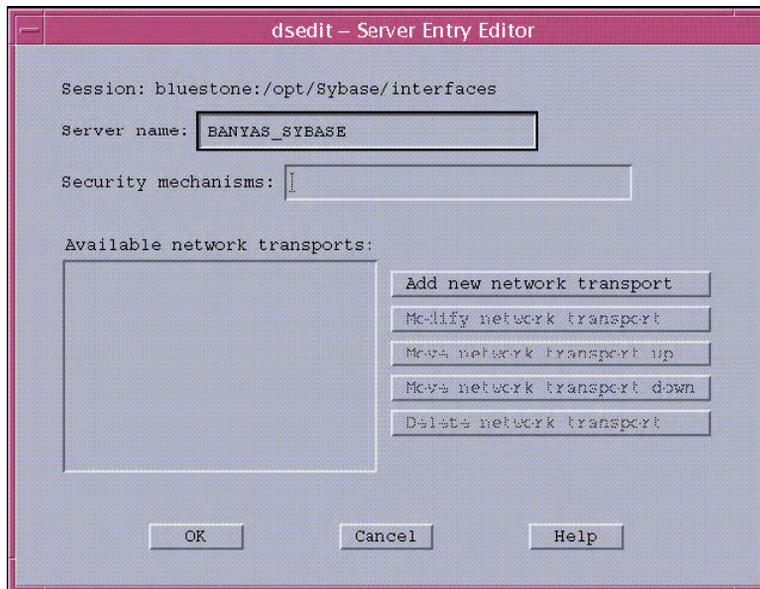
- 3 Select **Sybase interfaces file** in the Select a directory service to open box.
- 4 Verify the path and name of the interfaces file in the Interfaces file to edit box.
- 5 Click **OK**.

The dsedit - Directory Service Session dialog box opens.



- 6 Select the Sybase server from the Available servers box.
- 7 Click **Add new server entry**.

The dsedit - Server Entry Editor dialog box opens.

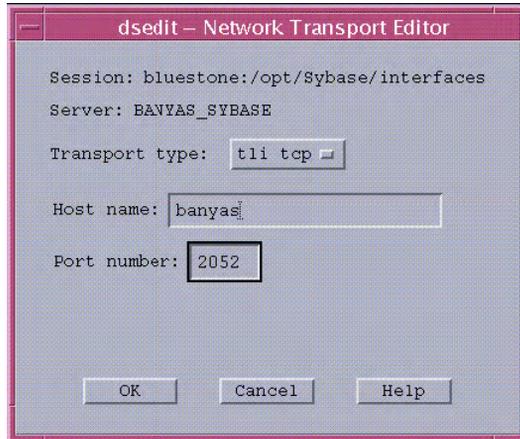


- 8 Type the name of the secondary Sybase server (*not* the server's host name) in the Server name box (in this example, **BANYAS_SYBASE**).

▶ The Sybase server name on a UNIX platform is typically *hostname_SYBASE*. The Sybase server name on a Windows platform is typically the same as the host name.

- 9 Click **Add new network transport**.

The dsedit - Network Transport Editor dialog box opens.



- 10 In the Transport type list, click **tli tcp**.
- 11 Enter the secondary server's host name in the Host name box.
- 12 Enter the port number that is configured for Sybase connections on the secondary server in the Port number box.

▶ The port number for OVPI servers installed on a UNIX system is typically 2052. The port number for OVPI servers installed on a Windows system is typically 5000.

- 13 Click **OK** to close the dsedit - Network Transport Editor dialog box.
- 14 Click **OK** to close the dsedit - Server Entry Editor dialog box.
- 15 Click **Close session** to close the dsedit - Directory Service Session dialog box.
- 16 Click **Exit** to close the dsedit - Select a Directory Service dialog box.
- 17 Click **Yes** to confirm that you want to exit from dsedit.

You can validate the result by viewing the \$SYBASE/interfaces file.

Create the Sybase Interfaces File on Windows Systems

Use the dsedit utility to install a secondary server interfaces file entry for Sybase on a Windows system.

To create the Sybase interfaces file:

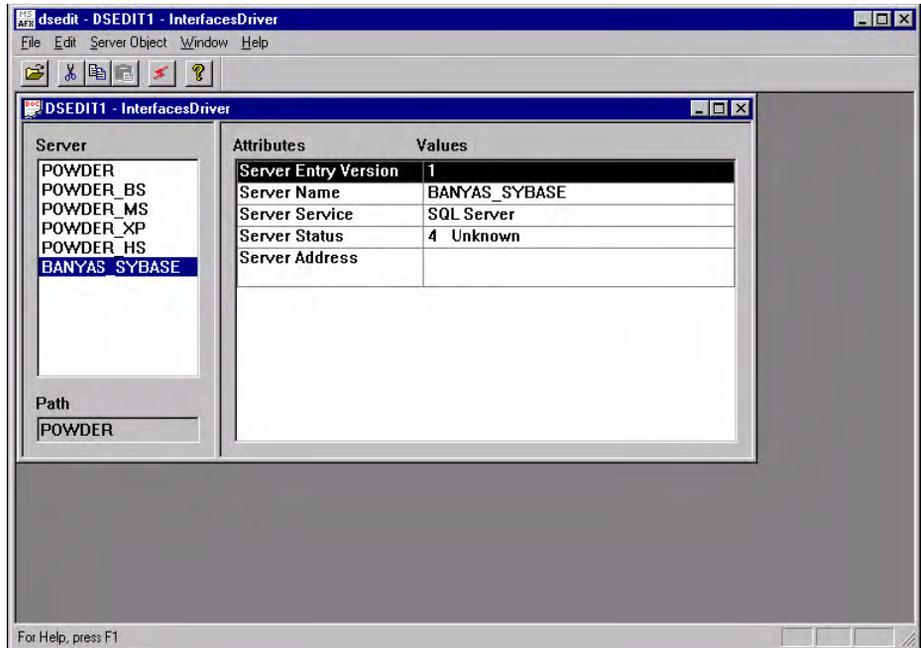
- 1 Select **Start Programs Sybase Dsedit**.

To create the Sybase interfaces file:

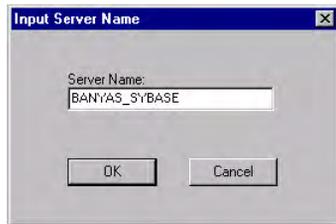


- 2 Select **InterfacesDriver** in the DS Name box.
- 3 Click **OK**.

The DSEDIT1 - InterfacesDriver window opens.

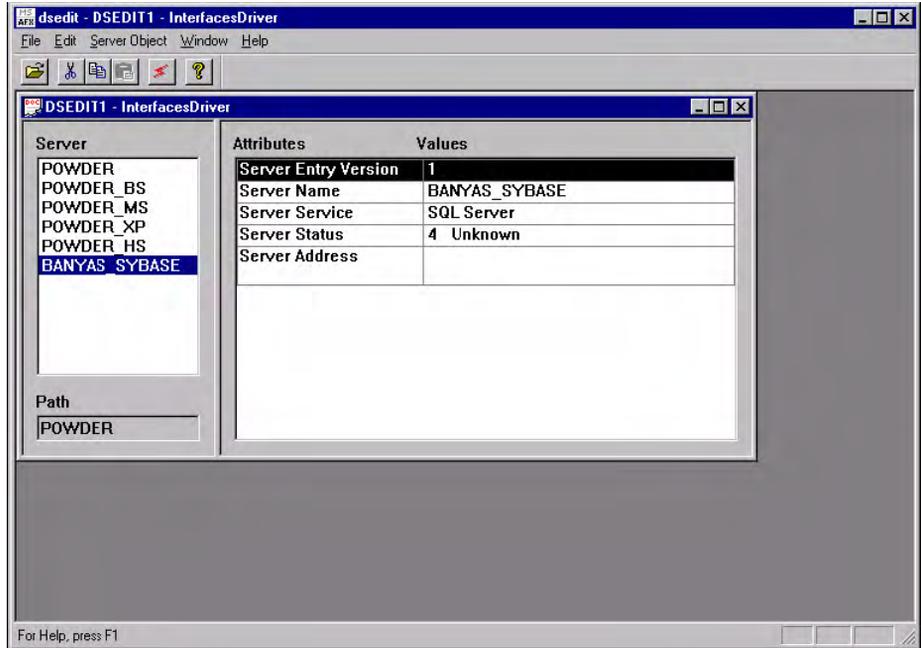


- From the Server Object menu, choose **Add**.
The Input Server Name dialog box opens.



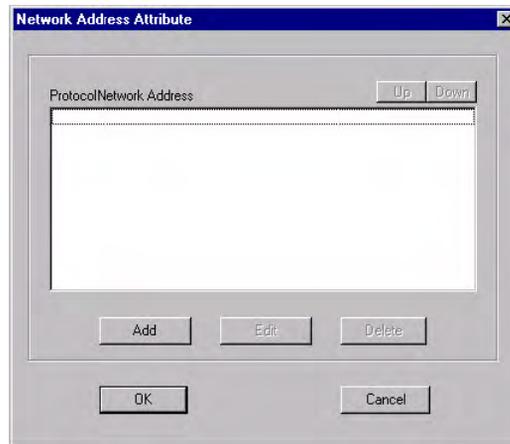
- Enter the database server name in the Server Name box (in this example, **BANYAS_SYBASE**, which is on a UNIX platform).
 - ▶ The Sybase server name on a UNIX platform is typically *servername_SYBASE*. The Sybase server name on a Windows platform is typically the same as the host name.
- Click **OK**.

The DSEdit1 - InterfacesDriver window reopens with the server name that you added highlighted.



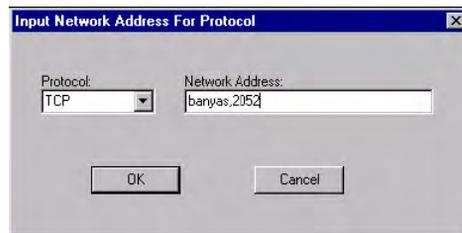
- 7 Double-click the **Server Address** attribute in the Attributes column.

The Network Address Attribute dialog box opens.



- 8 Click **Add**.

The Input Network Address For Protocol dialog box opens.

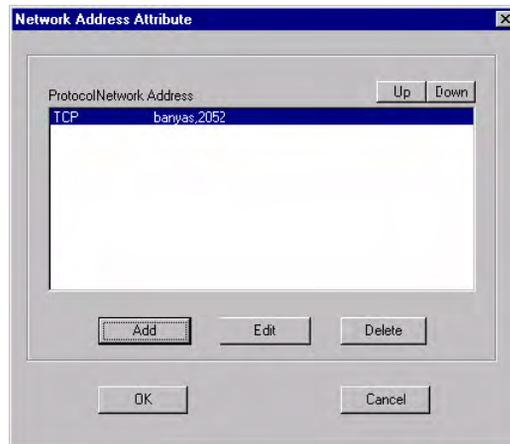


- 9 Do the following:
 - a In the Protocol list, click **TCP**.
 - b In the Network Address box, type the host name of the server (banyas, in this example), a comma, and the port number to which the server listens (2052, in this example).

➤ The port number for OVPI servers installed on a UNIX system is typically 2052. The port number for OVPI servers installed on a Windows system is typically 5000.

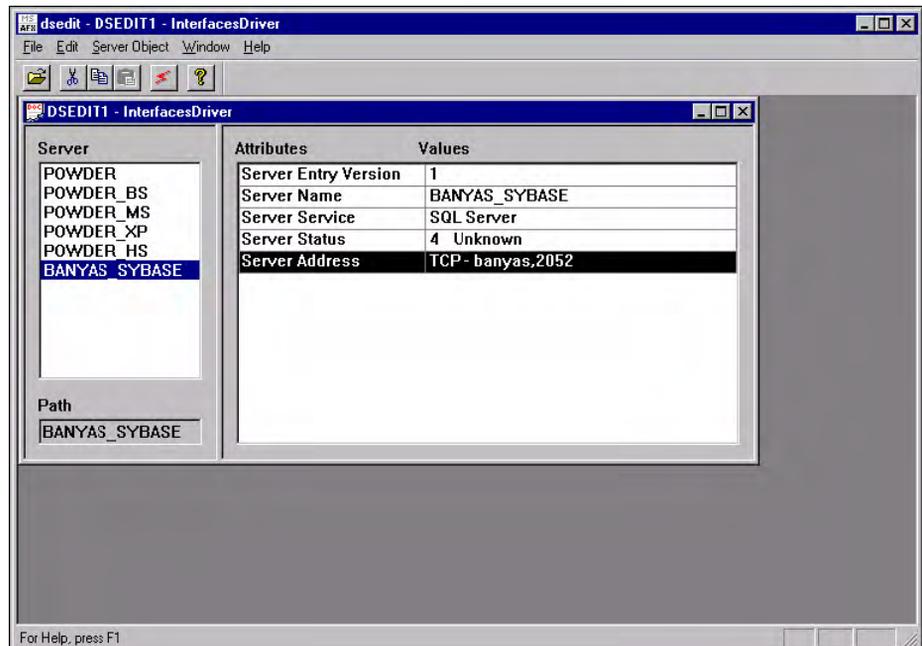
- 10 Click **OK**.

The Network Address Attribute dialog box opens with your entry.



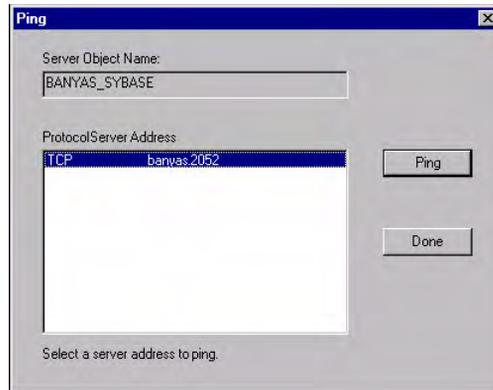
- 11 Click **OK**.

The DSEdit1 - InterfacesDriver window opens with the information that you added highlighted.



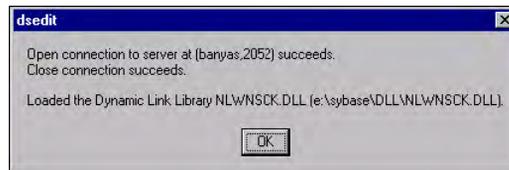
- 12 Click the **Ping** icon to test the connection to the specified server.

The Ping dialog box opens.



- 13 Click **Ping**.

A message similar to the following displays in the dsedit window if you successfully opened a connection to the specified server.



- ▶ If the message you receive indicates that the server is not recognized, you incorrectly specified the host name of the server or the port number, or the server is down. Verify the host name of the server and its port number. If you are still having difficulties, contact Support (see [Support](#) on page 4).

- 14 Click **OK** to close the message.
- 15 Click **Done** to close the Ping dialog box.
- 16 From the dsedit utility's File menu, select **Exit**.

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