



Pharos Systems

Pharos Uniprint® 8.2

Planning and Installation Guide

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Introduction

About This Document

This document covers the process of installing the Pharos Uniprint Suite (also called the Pharos Solution Suite). It provides information on determining the number of servers required and on how to prepare these servers for installation. This document also covers post-install operations such as uninstalling and setting up SSL encryption.

Other Documentation

Other documents are available covering different aspects of the Uniprint Suite. For a complete list of the available documentation, please refer to the “Uniprint Available Documentation” document.

Getting Help

Below is a list of options for obtaining support in the event you have questions or encounter issues during or after your installation of the Pharos Uniprint Suite.

Pharos Website

The Pharos website (www.pharos.com) contains information about Pharos products, including product updates, fixes and firmware releases. It also includes the **Pharos Knowledge Base**, which provides a comprehensive source of solutions and workarounds to known problems and issues. The Knowledge Base is constantly updated to ensure that it always contains the latest information.

Contact Details

| Corporate Headquarters | | Post-Sales Technical Assistance | |
|------------------------|--|---------------------------------|--|
| Phone: | 888-864-7768 (toll free US/Canada) | Email: | support@pharos.com |
| | (585) 360-1010 | North America: | (877) 848 0397 (toll free) |
| Fax: | (585) 249-9229 | | (585) 360-1010 Ext 1 |
| Address: | Suite 310 80 Linden Oaks Rochester, New York 14625 United States of America | Australia/New Zealand: | +64 9 523 0737 |
| | | Rest of the world: | +1 (585) 249-8999 Ext1 |

Pharos Uniprint Suite Overview

The Pharos Uniprint Suite allows you to manage, control and account for a range of networked resources. In addition to the core software products, Pharos Uniprint Suite also offers a comprehensive range of applications that provide additional capabilities and features including Secure Release Here® and Informed Print.

This section provides a brief description of each of the core software product included in the Pharos Uniprint Suite and the Uniprint applications.

For detailed information about the Pharos Uniprint Suite core products and the various applications, please refer to the “Uniprint Product Specification” document.

Pharos Uniprint Suite Core Products

The Pharos Uniprint Suite, also called the Pharos Solution Suite, is a collection of software products consisting of:

- Pharos Uniprint®
- Pharos Off-The-Glass®
- Pharos SignUp

All three products store information in a common core of accounting and database software. This allows all three products to be integrated into a single, tightly integrated system.

Pharos Uniprint

Uniprint is a print accounting and management software product that allows you to monitor and account for network printer use. Uniprint ensures that only permitted users access printing resources and charges users based on how they are using the resource.

Pharos Off-The-Glass

Pharos Off-The-Glass allows control over the use of photocopiers and multi-function devices (MFDs). Like Uniprint, Off-The-Glass ensures that only permitted users access copying resources and charges users based on how they are using the resource.

Pharos SignUp

Pharos SignUp is a system for reserving the use of public access computers. A user can reserve a computer for a particular date/time or join a virtual queue to wait for an available computer. SignUp ensures fair access to computers without any staff interaction.

Pharos Uniprint Applications

Uniprint also offers a range of applications that provide additional capabilities and features including:

Secure Release Here™

Secure Release Here is a Uniprint application that controls the release of print jobs sent from employee workstations to printing devices, allowing for improved security when printing jobs to shared, network devices. In addition, employees experience the convenience of being able to collect their documents from any devices that have been “grouped” together. Secure Release Here™ addresses network device issues, such as lack of security and excessive waste.

Informed Print

Informed Print is a Uniprint application that allows you to notify users of the cost of their print jobs at the time they are printed, by displaying a message on the users’ workstation. This message informs the user of the cost of their job, and optionally asks them if they wish to proceed with printing it.

Third-Party Charging

Third-Party Charging is a Uniprint and Off-The-Glass application that allows users to assign the cost of their print and copy activities to a particular department, budget center, grant number, etc. For example, when a user attempts to release their print job at the device, they are prompted to select the budget center to associate that print job with. Third-Party Charging requires a network terminal or iMFP that supports cost center billing; please contact Pharos Systems for more information.

Planning Your Installation

The process of installing and setting up the Pharos Uniprint Suite is straightforward, but as with any enterprise solution, pre-installation planning is critical. Before you begin your installation, it is important to understand the various components of a Pharos Uniprint system to help you decide how to best deploy the software to meet your requirements.

This section gives you a brief description of all the Uniprint Suite components.

Uniprint Suite Components

A Uniprint system uses multi-leveled architecture consisting of several cooperating components. These components include server, client, administrative, and web components.

The tables in this section give a brief description of these components.

| Server Components | Description |
|---------------------------|--|
| Pharos Database | The Pharos Database is central to all Pharos products - all configuration and transaction data information is stored here. |
| Principal Services | The core group of services required for all Uniprint Suite installation. These services include: <ul style="list-style-type: none"> • Pharos Database Server • Pharos License Server • Pharos Online Services These components must be installed on a server machine. |
| Print Services | The Pharos component that controls all print and copy-related processes, including access and billing, for the specified printers and /or copiers. Print Services must be installed on a server machine. It may be installed on the same machine as the Principal Services. |
| SignUp Services | The Pharos component that implements the tracking and reservation process for a specified group of computers. The SignUp Service controls the SignUp Clients installed on these computers. |
| EDI Service | The External Device Interface (EDI) Service provides a suitable protocol for approved, external devices and |

| | |
|---------------------|--|
| | <p>integrations to connect to the Uniprint Suite installation.</p> <p>Pharos Network Terminals and Pharos iMFPs require the Pharos EDI.</p> |
| Web Services | <p>The SignUp Web Components (Queue Station and Nerve Center) and Uniprint Website are installed on a central web server running Microsoft Internet Information Server.</p> <p>The SignUp Web Components allows staff members to monitor the computer reservation system.</p> <p>The Uniprint Website allows users to find available printers and download the necessary software to access these print devices.</p> |

| Client Components | Description |
|-----------------------------|---|
| Pharos Popup Client | <p>The Popup Client is an application that is activated every time a user prints a document from their workstation to a Uniprint controlled output device. The Popup Client can then request additional information from the user, e.g. authentication credentials. This is useful for sites where users are not required to authenticate on the workstation itself.</p> <p>The Popup Client also incorporates the Pharos Notify component. Notify allows a Uniprint server to send messages back to the user at the workstation. These messages may be simply information based or prompt the user for additional information.</p> |
| Pharos SignUp Client | <p>The SignUp Client is installed on each computer that will be managed by SignUp. The Signup Client enforces access permissions, reservations, and reservation durations as part of Pharos SignUp.</p> |

| Administrative Components | Description |
|-----------------------------|---|
| Pharos Administrator | <p>The Pharos Administrator is the main user interface used to configure, manage and maintain the Pharos system.</p> <p>Pharos Administrator is installed with all Pharos Services, but it can also be installed standalone for remote management of the Pharos system.</p> |

| | |
|------------------------------|--|
| <p>Pharos Remote</p> | <p>A second-tier system monitoring and management application, Pharos Remote allows local area supervisors to maintain the printing operations.</p> <p>Pharos Remote is an Administrative Component that allows the Administrator, Cashiers and Proctors to remotely manage certain aspects related to print jobs and user accounts.</p> |
| <p>Pharos Reports</p> | <p>A component that installs independently of Pharos Administrator and offers statistical reporting, auditing, and data exporting capability.</p> <p>To run Reports, you must have an access-level of Proctor or higher.</p> |
| <p>Pharos Station</p> | <p>Pharos Stations are dedicated user stations that allow end-users to (1) collect and pay for printing, (2) manage their account, and (3) create and manage computer reservations.</p> |

| Web Components | Description |
|-----------------------------------|--|
| <p>Pharos Nerve Center</p> | <p>Pharos Nerve Center is a web application used to manage Pharos SignUp. It allows onsite staff to check on the status of users, computers, reservation queues and active sessions, as well as performing various administration functions.</p> |
| <p>Uniprint Website</p> | <p>The Uniprint Website is a template web site that allows users to find and connect to Uniprint-managed output devices without any staff involvement.</p> <p>The Uniprint Website provides access to the install packages that users can download to install printers and Popup Client components on their computers.</p> |

| Other Components | Description |
|--------------------------------|--|
| <p>Network Terminal</p> | <p>A hardware device that provides the necessary user interface at the output device. Users can use this device to supply authentication credentials (e.g. username/password, proximity card, etc.), view their print jobs available for release, and use the copy function of an MFD.</p> |

| | |
|-------------------------------------|---|
| <p>Integrated MFP (iMFP)</p> | <p>Offering similar functions as a network terminal, the iMFP is a software component that can be installed directly on select output devices, normally without any additional external hardware.</p> |
|-------------------------------------|---|

Which Server Components to Install?

Not all server components are required for all installations. Depending on the Pharos software product or application you want to install, you will need to install different combinations of the components.

The following table shows the essential and optional components that you need to install for each of the Uniprint Suite core software products and Uniprint applications:

| Product/Application | Components |
|---|--|
| <p>Uniprint (including Secure Release Here and Informed Print)</p> | <ul style="list-style-type: none"> • Pharos Database • Principal Services • Print Services • EDI Service (optional) • Web Services (optional) |
| <p>Off-The-Glass</p> | <ul style="list-style-type: none"> • Pharos Database • Principal Services • Print Services • EDI Service |
| <p>SignUp</p> | <ul style="list-style-type: none"> • Pharos Database • Principal Services • SignUp Services • Web Services (optional) |

Sizing Your Installation

Before beginning your installation, it is important to determine how many servers are required to manage the expected load. This section provides guidelines to help you determine the required number of servers for your environment. It also includes the recommended hardware specifications.

Your Environment

First, you must select an appropriate size category based on your environment. The size category helps you to quickly determine when a single server is sufficient or when Pharos services must be split across multiple servers. You must select the largest category that applies to your environment, e.g. if you have 50 printers (size category – medium) and 70,000 students (size category – large), you must base your planning on the “large” size category.

| Size Category | Description |
|---------------|--|
| 1. Small | <p>A small environment is defined as having all of the following characteristics:</p> <ul style="list-style-type: none"> • 20 or fewer output devices (i.e. printers and MFPs) • Fewer than 10,000 full-time equivalent students • Fewer than 300 SignUp Client computers |
| 2. Medium | <p>A medium-sized environment is defined as having one or more of the following characteristics:</p> <ul style="list-style-type: none"> • 50 – 100 output devices (i.e. printers and MFPs) • 10,000 – 50,000 full-time equivalent students • 300 – 500 SignUp Client computers |
| 3. Large | <p>A large environment is defined as having one or more of the following characteristics:</p> <ul style="list-style-type: none"> • 100+ output devices (i.e. printers and MFPs) • 50,000 + full time equivalent students • 500 – 2,500 SignUp Client computers |

Number of Servers

Once you have determined the size category of your environment, you can use the following table as a general guideline for the base number of servers required:

| Size Category | Description |
|---------------|--|
| Small | A single server can be used for all Pharos services |
| Medium | 1 server for SQL Server, Pharos Database and Pharos Principal Services 1 server for all other services (including Print Services and SignUp Services) |
| Large | 1 server for SQL Server and the Pharos Database. This could be part of your existing SQL farm. 1 server for Pharos Principal Services 1 or more servers – refer to the “Number of Print Servers” section and “Number of SignUp Servers” section below. |

Number of Print Servers

The number of print servers required for a Uniprint install depends on a number of factors including the number of printers and users to be managed.

A single, dedicated print server can support approximately **200 output devices (i.e. printers and MFPs)** and serve **50,000 or more users**. If other Pharos services (e.g. the Pharos Principal Services, SignUp Services) are also installed on the print server, the number of printers should not exceed 100 output devices.

These numbers are based on the following assumptions:

- The average rate of print jobs submitted to the print server is 10,000 jobs per hour.
- The average print job submitted to the print server contains 3 pages with limited graphics, is not complex (i.e. the graphic image are not complex), and uses PostScript.

In your environment, you may find that the number of output devices supported by a print server to be lower than 200. This can be due to a number of factors that affect the capacity of the print server including, but not limited to:

- **High Sustained Rate of Print Job Submission:** When print jobs are submitted consistently above the rate of 10,000 jobs per hour, the processing demand on the server increases dramatically. This may also apply if the server consistently experiences high peak job submission rates for extended periods of time.
- **Complex Print jobs:** Complex print jobs such as those containing graphics place extra load on the print server.

- **Number of Release Stations:** In a Held printing environment, Release Stations are used to view jobs sitting in Held Queues, and to release these print jobs to the printers. The Release Station interacts with the print server requesting information such as the list of print jobs, the cost and details of a selected print job, information about the user, and so on. Each request places a load on the print server.
- **Type of Release Stations:** Certain types of Release Stations are controlled by services on the server itself. Due to this, these devices can place significant extra load on the server.
- **Number of Held Jobs:** In a Held printing environment, the print jobs are stored on the server until the user is ready to collect them at the printer. When the number of held jobs increases, it can impact the restart time of spooler (as the spooler must refresh its internal job list on restart). If the number of held jobs is consistently above 5,000 print jobs, you may need to consider adding additional print servers.

Number of SignUp Servers

The number of required SignUp Servers is typically based on the number of SignUp Clients. A single, dedicated SignUp Server can support a maximum of 500 SignUp Clients.

Database Size

The Pharos Database is used to store configuration, user, costing, and activity data.

To determine the minimum storage space required for the Pharos Database, first determine the following:

- The number of users accounts that will be stored in the Pharos Database
- The number of cost centers (for Third Party Charging) that stored in the Pharos Database
- The average number of transactions you expect per month multiplied by the number of months that you will keep these transactions for reporting purposes

Then use the following formula:

$$\begin{aligned} \text{Storage Required (KB)} &= 2\text{KB per user account} \\ &+ 1\text{KB per cost center} \\ &+ 1\text{KB per transaction} \\ &+ 102,400\text{KB system overhead (configuration data, alerts, etc)} \end{aligned}$$

System Requirements

Once you have determined the number of required servers, you must ensure that your environment meets the hardware and software requirements for installation. This section describes the hardware, software, and database requirements as well as other pre-requisites for the Uniprint Suite components.

Server Hardware Specifications

The base hardware requirements are the same for all environment sizes; however, the number of servers, the number of Pharos services installed on each server, and the number of resources managed by each server will vary with each environment. The base requirements are:

| Component | Recommended Specifications |
|-------------------|----------------------------|
| CPU | Dual Core processor |
| Memory | 2 GB RAM |
| Disk space | 100+ GB |

For print servers that will be handling larger loads (particularly large complex print jobs):

| Component | Recommended Specifications |
|-------------------|----------------------------|
| CPU | Quad Core processor |
| Memory | 2 GB RAM |
| Disk space | 200+ GB |

In general, increasing the amount of memory will not affect performance of the Pharos components. However, if a server is also running Microsoft SQL Server, an additional 2GB RAM may improve the database processing time.

Server Software Requirements

Pharos Database Component

The Pharos Database requires a database engine. The following database engines are supported:

| Requirements | |
|-------------------|---|
| SQL Server | <ul style="list-style-type: none"> • Microsoft® SQL Server 2005 Express Edition or better • Microsoft® SQL Server 2008 Express Edition or better • Microsoft® SQL Server 2008 R2 |

For all versions of SQL Server, ensure you have the latest SQL Server service packs applied.

Pharos Server Components

The following table lists the software requirements for the Pharos server components installed on a standard server (i.e. it is not clustered). For clustering requirements, please refer to the “Installing Server Components on a Cluster” section on page 38.

| Requirements | |
|-------------------------|--|
| Operating System | <ul style="list-style-type: none"> • Windows Server 2003 Standard Edition and Enterprise Edition • Windows Server 2008 Standard Edition and Enterprise Edition • Windows Server 2008 R2 Standard Edition and Enterprise Edition • Windows Vista Business Edition, Enterprise Edition, and Ultimate Edition • Windows 7 Business Edition, Enterprise Edition, and Ultimate Edition |

Pharos Server Pre-requisites

Ensure that the following pre-requisites are installed before installing the Uniprint Suite server components.

| Pre-requisites | Description |
|---|---|
| Microsoft® Windows Installer 3.1 | Windows Installer 3.1 is required by the .NET Framework. Windows Installer 3.1 is available on the Pharos CD at common\win32\DotNETFramework or it can be downloaded from Microsoft’s website. |
| Microsoft® .NET Framework 3.5 SP1 | The .NET Framework is available on the Pharos CD at common\win32\DotNETFramework or it can be downloaded from Microsoft’s website. For Windows Server 2008, .NET Framework can be added as a "Feature" from the Administrative Tools > Server Manager . |
| Microsoft Management Console(MMC) 3.0 or later | Pharos Administrator and Pharos Remote require Microsoft Management Console 3.0 or later. MMC is available on the Pharos CD at common\win32\MMC or it can be downloaded from Microsoft’s website. |
| Microsoft Internet Information Services (IIS) 5.0 or later | The Pharos EDI service requires Microsoft Internet Information services. In addition, the Pharos Web Components require Microsoft Internet Information Services. Note: Windows Server 2008 and Windows Server 2008 R2 comes with IIS7 7.0. Please refer to the Additional Pre-requisites for Windows Server 2008 below for more information. |

Additional Pre-requisites for Windows Server 2008

If you are installing Pharos Uniprint on Windows Server 2008 or Windows Server 2008 R2, you also need to install the following pre-requisites in addition to the standard pre-requisites.

- Add "Web Server (IIS)" Role from the **Server Manager**. This installs IIS 7.0 Manager.
- After adding the "Web Server (IIS) Role, you must add the following "Role Services" for Uniprint to work with IIS 7.0.

Application Development

- ASP .NET
- .NET Extensibility
- ASP

- ISAPI Extensions
- ISAPI Filters

Management Tools

- IIS Management Console
- IIS Management Scripts and Tools
- Management Service
- IIS6 Management Compatibility (including all components under this tree).

Administrative Components

The following table lists the software and hardware requirements for the Uniprint Suite administrative components. Administrative components include Pharos Administrator, Pharos Remote, Pharos Station, and Pharos Reports.

| Requirements | |
|-------------------------|---|
| Operating System | <ul style="list-style-type: none"> • Windows XP Professional Edition • Windows Vista Business Edition, Enterprise Edition, and Ultimate Edition • Windows Server 2003 Standard Edition and Enterprise Edition • Windows Server 2008 Standard Edition and Enterprise Edition • Windows Server 2008 R2 Standard Edition and Enterprise Edition • Windows 7 Business Edition, Enterprise Edition, and Ultimate Edition |
| CPU | <ul style="list-style-type: none"> • Intel Pentium III compatible processor or higher |
| Memory | <ul style="list-style-type: none"> • RAM and disk space as required by the operating system |
| Disk Space | <ul style="list-style-type: none"> • RAM and disk space as required by the operating system |

Administrative Pre-requisites

Ensure that the following pre-requisites are installed before installing the administrative components.

| Pre-requisites | Description |
|---|--|
| Microsoft® Windows Installer 3.1 | Windows Installer 3.1 is required by the .NET Framework. Windows Installer 3.1 is available on the Pharos CD at common\win32\DotNETFramework or it can be downloaded |

| | |
|---|--|
| | from Microsoft’s website. |
| Microsoft® .NET Framework 3.5 SP1 | The .NET Framework is available on the Pharos CD at common\win32\DotNETFramework or it can be downloaded from Microsoft’s website. |
| Microsoft Management Console(MMC) 3.0 or later | Pharos Administrator and Pharos Remote require Microsoft Management Console 3.0 or later. MMC is available on the Pharos CD at common\win32\MMC or it can be downloaded from Microsoft’s website. |

Client Components

The following table lists the hardware requirements for all the Uniprint Suite client components. Client components include the Popup Client and SignUp Client.

| Hardware Requirements | |
|-----------------------|--|
| CPU | Intel Pentium III compatible processor or higher |
| Memory | RAM and disk space as required by the operating system |
| Disk Space | RAM and disk space as required by the operating system |

Supported Popup Client Platforms

The Popup Client supports the following platforms:

- Windows XP Home Edition and Professional Edition
- Windows Vista Home Basic Edition, Home Premium Edition, Business Edition, Enterprise Edition, and Ultimate Edition
- Windows 7 Home Basic Edition, Home Premium Edition, Business Edition, Enterprise Edition, and Ultimate Edition
- Windows Server 2003 Standard Edition and Enterprise Edition
- Windows Server 2008 Standard Edition and Enterprise Edition
- Windows Server 2008 R2 Standard Edition and Enterprise Edition
- Mac OS X 10.4 - 10.6 (PowerPC and Intel)

Supported SignUp Client Platforms

The SignUp Client supports the following platforms:

- Windows XP Professional Edition
- Windows Vista Home Basic Edition, Home Premium Edition, Business Edition, Enterprise Edition, and Ultimate Edition

- Windows 7 Home Basic Edition, Home Premium Edition, Business Edition, Enterprise Edition, and Ultimate Edition
- Mac OS X 10.4 – 10.6 (PowerPC and Intel)

64-bit Support

- The server components on a standard server and clustered server support 32-bit and 64-bit versions of Windows Server 2003, Windows Server 2008 and Windows 2008 R2.
- The server components on a clustered server support 64-bit versions of Windows Server 2003 and Windows Server 2008.
- The Popup Client and Pharos Station will both support 32-bit and 64-bit versions of the supported Windows operating systems.
- The SignUp Client supports 32-bit only; it does not support 64-bit versions of the Windows operating system.

Note: *Pharos components are not officially supported on VMware 64-bit virtual machines due to hardware compatibility issues with these virtual machines.*

Installation Overview

The process of installing the Uniprint Suite differs depending on the product and application that you will be implementing. This section provides an overview of the installation process and includes important details that you need to consider prior to installing.

Pharos server components are installed from the main product CD. The installers use a common install wizard for all components which gathers any required information and installs all files. For more information on the Pharos Installation Wizard, refer to the “Using the Installation Wizard” section on page 27.

Server Roles

In a Uniprint Suite install, server components are grouped based on a series of server roles. The following server roles are available:

| Role | Includes |
|------------------------------|---|
| Database | Pharos SQL Server Database |
| Principal Services | Pharos Database Server Pharos License Server Pharos Online Services |
| Print Services | Pharos Print Server Pharos LPD Server Pharos Popup Server |
| SignUp Services | Pharos SignUp Server |
| EDI Service | Pharos EDI Server |
| Web Services | SignUp Web Components Uniprint Web Components |
| Additional Components | Pharos Administrator Pharos Reports |

Typical Order of Installation

In general, server components are installed first, and then client and administrative components are installed as necessary.

The following steps show the installation order:

1. Install the core server components
 - a. Install the Pharos Database. The Database must be installed first in any installation.
 - b. Install Principal Services. This may be on the same machine where the Pharos Database is installed.
2. Install other Pharos Services depending on the Uniprint Suite product and application being implemented.
3. Install Pharos client components and administrative components (as needed).

Additional components and applications may be required once the system is up and running - these can be installed as they are needed.

Important Installation Notes

- When installing the Database or Principal Services roles, it is not possible to install other roles at the same time. Other roles, such as Print Services, expect the core server components to already be installed and running.
- It is possible to install the Database and the Principal services separately, e.g. the Database on a dedicated SQL Server and the Principal Services on a server dedicated to the Pharos services. In addition, all of the Database and Principal Services components can be installed on the same server.
- When installing the Pharos Database, the installer will connect to the SQL Server instance using a TCP/IP socket connection. Ensure that the SQL Server accepts TCP/IP connections (i.e. the TCP/IP network option is installed and enabled).
- On SQL 2005 Express, the TCP/IP network option must be manually enabled before installing Pharos. Enable TCP/IP from the SQL Server Surface Area Configuration tool.
- For smaller installation where the expected load can be handled by one server, all of the Pharos server components can be installed on a single machine.
- When installing SQL Server, make sure that you select the "Mixed Authentication mode". If already installed with "Windows Authentication mode", you must change it to "Mixed Authentication mode". Pharos Uniprint requires the built-in SQL Server system administrator account.

Installing Other Pharos Components

Pharos Server components are installed using the main installer CD. Client components and administrative components are installed using different methods. In general, the client and select administrative components are installed using self contained install packages.

The following table gives you a brief overview of how to install other Pharos components:

| Other Pharos Components | Installation Details |
|-----------------------------|---|
| Popup Client | The Popup Client is installed using install packages, which are created from Pharos Administrator. For more information on how to install Popup Clients, refer to the “Installing Popup Clients” section on page 49. |
| SignUp Client | The SignUp Client has a self-contained install package, which can be copied from the Pharos CD image and run on SignUp Client computers. For more information on how to install a SignUp Client, refer to the “Installing SignUp Clients” section on page 47. |
| Pharos Remote | The Pharos Remote has a self-contained install package which can be copied from the Pharos CD image and run on computers. For more information on how to install Pharos Remote, refer to the “Installing Pharos Remote” section on page 53. |
| Pharos Station | The Pharos Station has a self-contained install package which can be copied from the Pharos CD image and run on Pharos Station computers. For more information on how to install Pharos Station, refer to the “Installing Pharos Stations” section on page 51. |
| Pharos Administrator | When installing any server component, the Pharos Administrator is installed along with it. However, you can install the Pharos Administrator standalone using the main installers. For more information, refer to the “Installing Uniprint Suite Server Components” section on page 28. |
| Pharos Reports | The Pharos Reports is installed using the main installers on the Pharos CD image. For more information on how to install Pharos Reports, refer to the “Installing Pharos Reports” section on page 54. |

Installing Server Components

This section gives you instructions on how to install Pharos server components and provides important installation details, including how to prepare your site for installation.

Before starting the installation, review the **Readme.htm** file that comes on the Pharos CD image for additional information on software prerequisites, special scenarios, and known issues that might affect how you proceed with your installation.

Note: *If you are installing the Uniprint Suite server components on a cluster, please refer to the “Installing Server Components on a Cluster” section.*

Pre-Installation Checklist

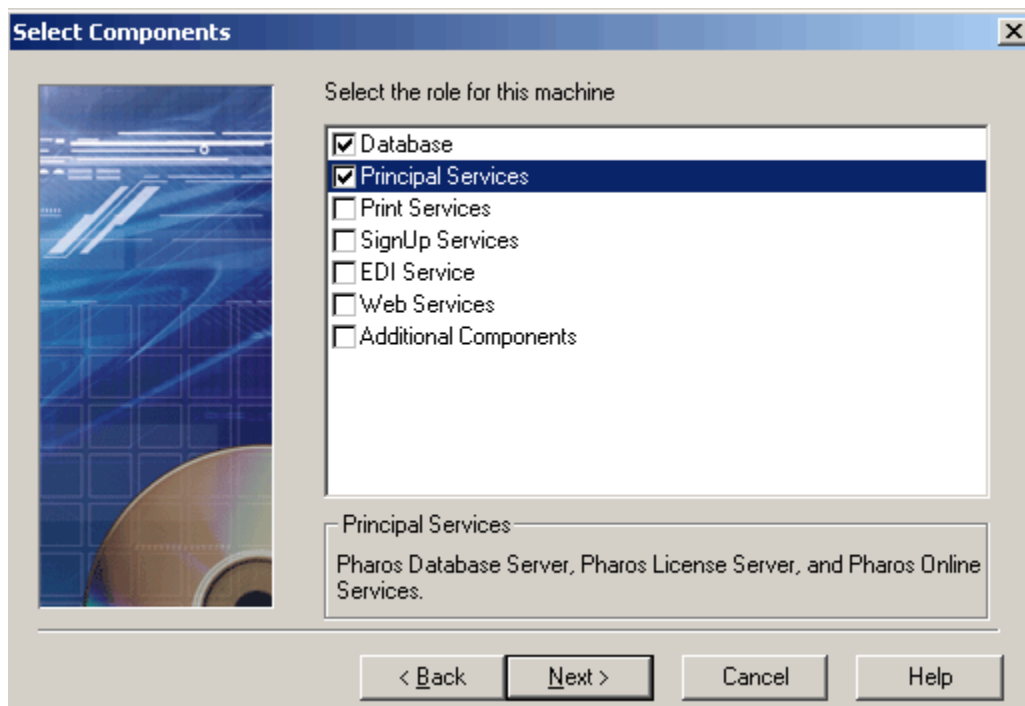
Before you install Pharos server components, you must complete several pre-installation tasks. The following table outlines the pre-installation checks that you must perform and provides the details that you need to complete these tasks.

| | |
|---|--------------------------|
| <p>Have you determined the appropriate use scenario for your site and understand how you want your system to work?</p> <p>If you are unsure, please contact Pharos Systems to discuss.</p> | <input type="checkbox"/> |
| <p>Do you have enough servers that meet the standard hardware and software requirements for the Pharos server components?</p> <p>Refer to the “Sizing Your Installation” section on page 14.</p> | <input type="checkbox"/> |
| <p>Have you installed all the pre-requisite software and Windows component?</p> <p>Refer to the “Pharos Server Pre-requisites” section on page 19.</p> | <input type="checkbox"/> |
| <p>Do you have a working DNS environment?</p> | <input type="checkbox"/> |
| <p>Do you know the host name of the server that will run the Pharos Database Server? The installer asks you to specify this information if you install service components on any computer other than the computer running the Principal Services.</p> | <input type="checkbox"/> |
| <p>Do you have an appropriate license key from Pharos Systems or your Pharos Authorized Reseller?</p> <p>The license key will be sent to you (usually by email) at the same time as the Pharos CD image is supplied.</p> | <input type="checkbox"/> |

Using the Installation Wizard

All server components are installed using a common installation wizard, which gathers configuration details and installs the relevant files. The Pharos Installation Wizard is opened from the Pharos CD image.

All wizard screens use the same layout:



The installation wizard is also used for product upgrades—if the installer detects that the computer already has older versions of Pharos components installed, it will switch to its upgrade mode. For more information, refer to the “Uniprint Upgrade Guide”.

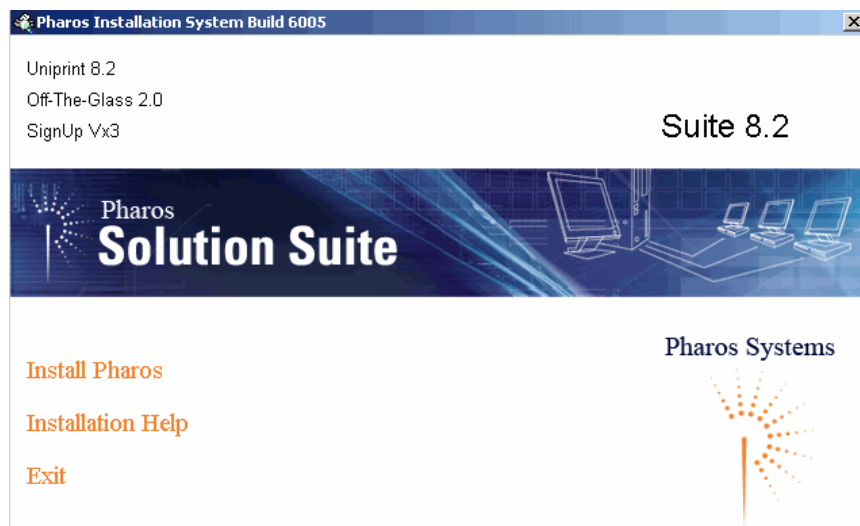
Use the **Next** button to progress forward through the installation wizard. If you need to change details, use the **Back** button to return to a previous screen. The **Cancel** button allows you to exit the installers at any time.

Note: Most properties set during installation can be changed later using the Pharos Administrator application.

Installing Uniprint Suite Server Components

To begin the Uniprint server component installer:

1. Access the Pharos CD image from the computer you want to install components on.
2. If the installer does not start automatically (e.g. if you are accessing the CD image from a network share), double-click on **setup.exe** from the root directory of the CD image. The Pharos splash screen appears.



Main Installer Wizard Screens

The following screens are displayed during an install of the Pharos server components:

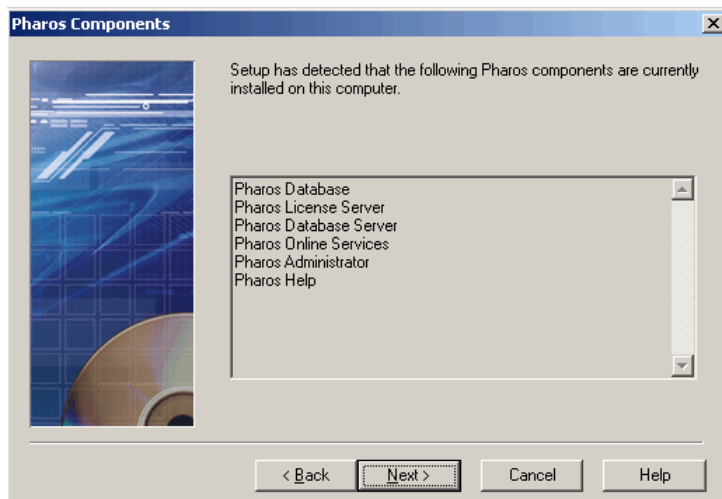
| | |
|---|--|
| <p>Welcome screen</p> <p>Basic information about the Uniprint Suite installer.</p> | |
|---|--|

Pharos Components

If any Pharos components are already present on this computer, they will be listed on this screen.

If no components are detected, this screen is not displayed.

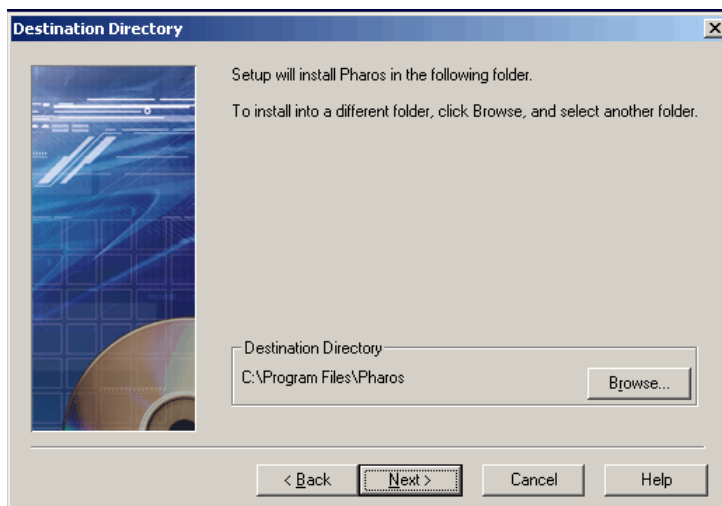
Click **Next** to continue.



Destination Directory

Click **Browse** to specify a different folder that Pharos files should be installed to.

When the appropriate installation folder has been selected, click **Next** to continue.

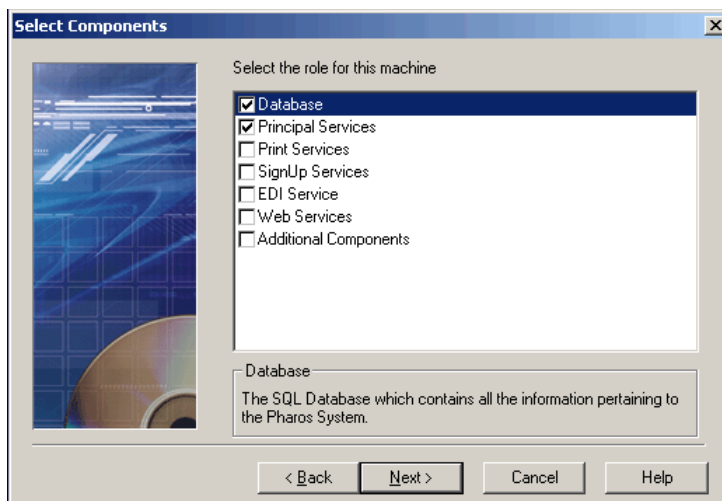


Select Components

Select the server role(s) to install. Highlighting a role displays information about it in the lower half of the screen, including a list of components installed with the role.

Check the boxes for all server roles you want to install and then click **Next**.

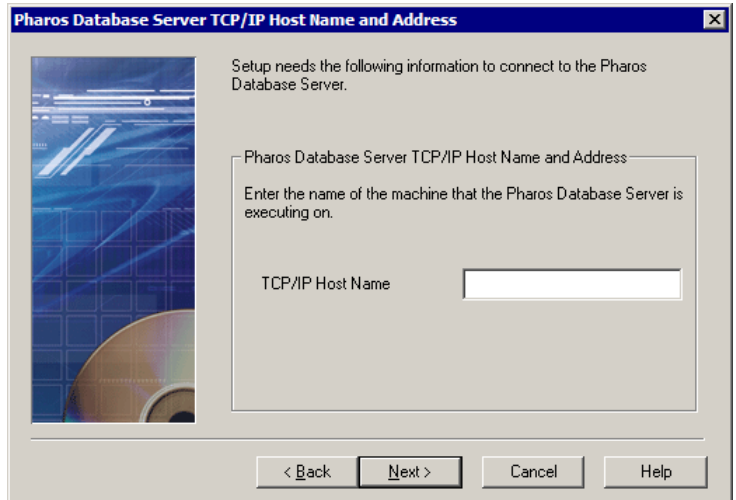
Note: Selecting “**Additional Components**” leads to a second screen where you can select the specific components you want to install.



Database Server TCP/IP Host Name and Address

The screen is displayed when installing roles other than Database or Principal Services.

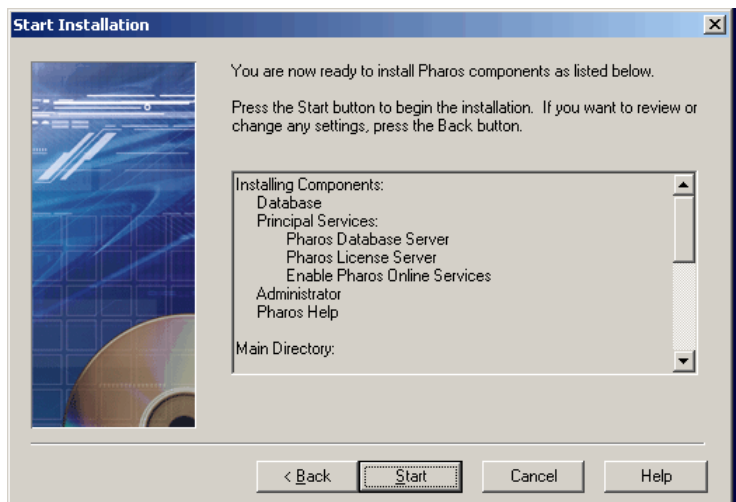
Enter the network name of the computer that hosts the Pharos Database Service (not Pharos Database) and then click **Next**.



Start Installation

This screen is displayed once the installers have gathered all of the information they need. A summary of the components being installed is displayed.

Click **Start** to begin the installation.

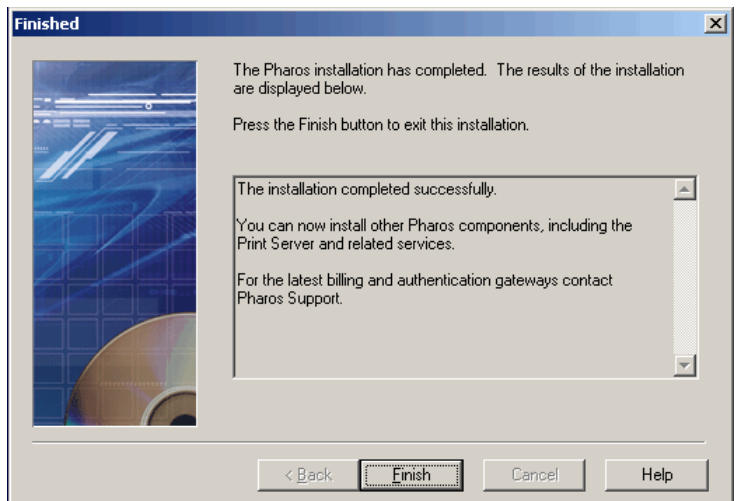


Finished Installation

This screen is displayed once the installation is complete.

Click **Finish** to exit the installers.

Depending on which components were installed, the computer may need to be restarted to complete the installation. If this is the case, a small dialog asking if you want to restart the computer is displayed. Click **Yes** to restart immediately or **No** to return to Windows and restart at a later point.



Component-Specific Screens

At this point, any screens specific to the components being installed are displayed. Component screens are displayed in the order that the components are listed on the Select Components screen. Refer to the Pharos Help for more information on the specific properties mentioned. If a component is not mentioned below, it has no extra install wizard screens.

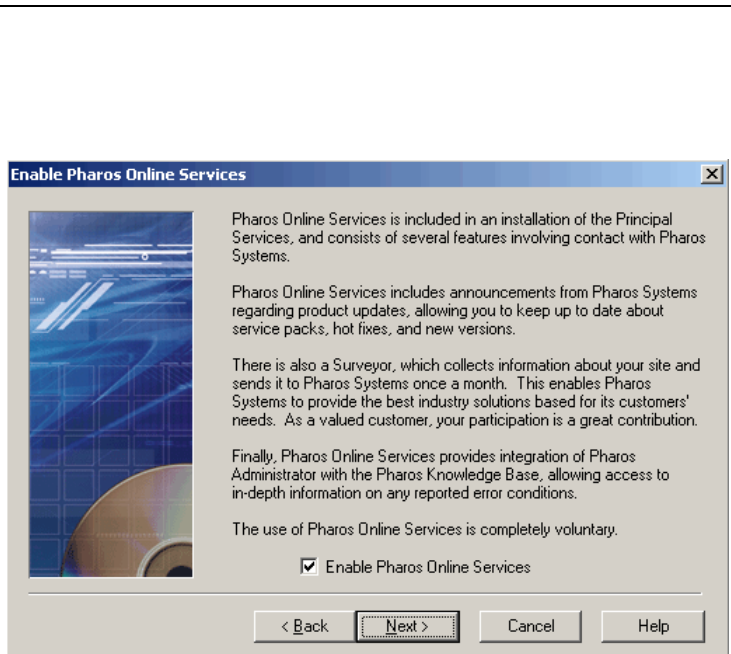
Pharos Principal Services and Database

Enable Online Services (Principal Services only)

Pharos Online Services is a set of features that involves communication between your site and Pharos Systems. Part of this is a small service that gathers information about your Pharos system and emails it to Pharos at regular intervals. This aids Pharos Systems in further developing and improving the Pharos products.

The use of Pharos Online Services is completely voluntary—select whether or not you want to enable it and then click **Next** to continue.

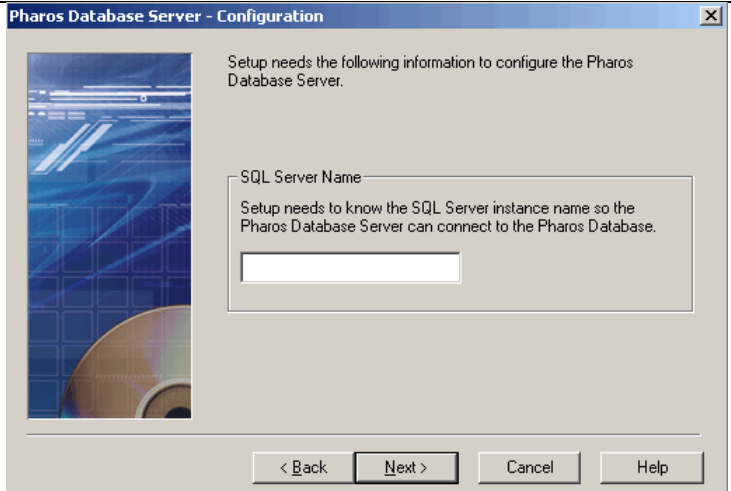
Note: Detailed information on the data that is recorded and sent by Pharos Online Services can be found in the Pharos Help.

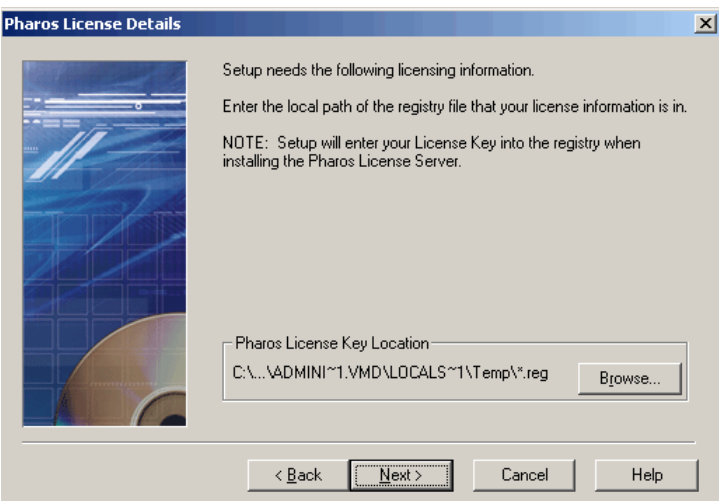
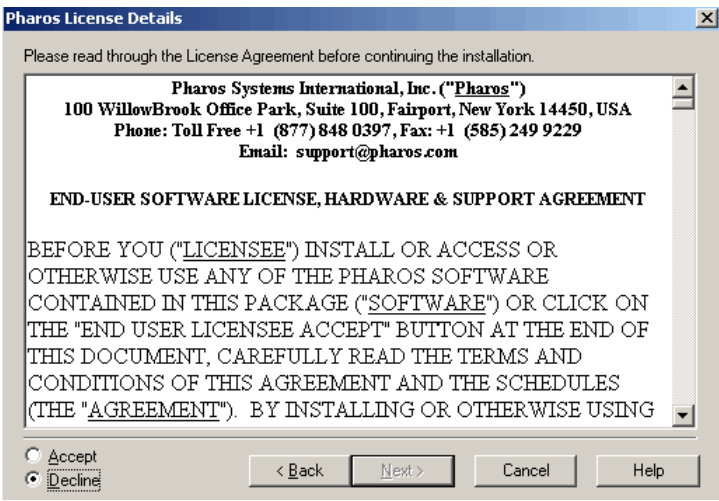
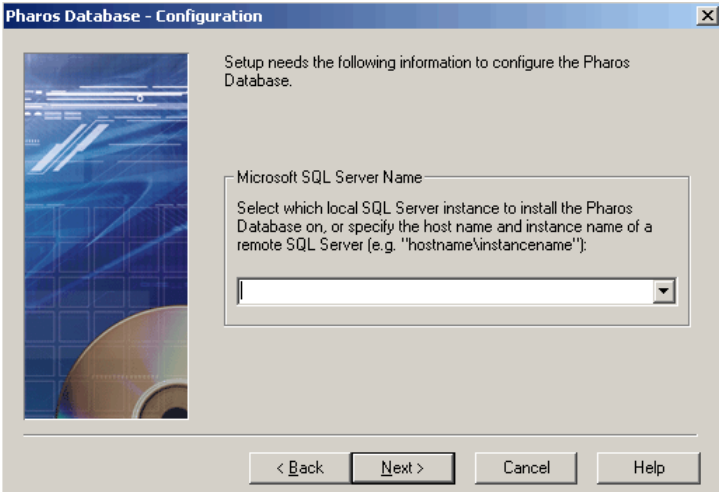


SQL Server Name

Enter the name of the server that the Pharos Database is installed on and click **Next**.

You may enter the server name or the fully qualified server name. If the Database is not installed on the default SQL instance, specify the instance name (e.g. hostname\instancename).

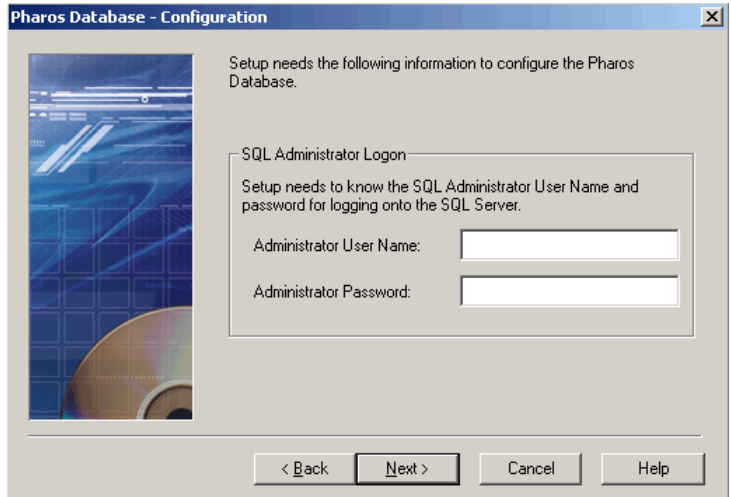


| | |
|--|---|
| <p>Pharos License Key Location</p> <p>Click Browse to locate the registry file containing your license information. Click Next once you have specified the location of the registry file.</p> |  |
| <p>License Agreement screen</p> <p>The Uniprint End-User License is displayed.</p> <p>You must accept the terms of the license and click Next to continue.</p> |  |
| <p>SQL Server Instance</p> <p>Select the SQL Server that the Pharos Database should be installed</p> <p>If the SQL Server is running on your local machine, the drop-down list shows the name of the local SQL Server instance(s).</p> <p>If the SQL Server is on a remote machine, enter the instance name of the remote SQL Server.</p> <p>Click Next to continue.</p> |  |

SQL System Administrator Logon

Enter the SQL Server administrator user name and password and then click **Next** to continue.

Note: Consult your SQL Server administrator for the appropriate logon details to use.



Database Connection

Note: This screen appears only when installing the Database and Principal Services on separate machines.

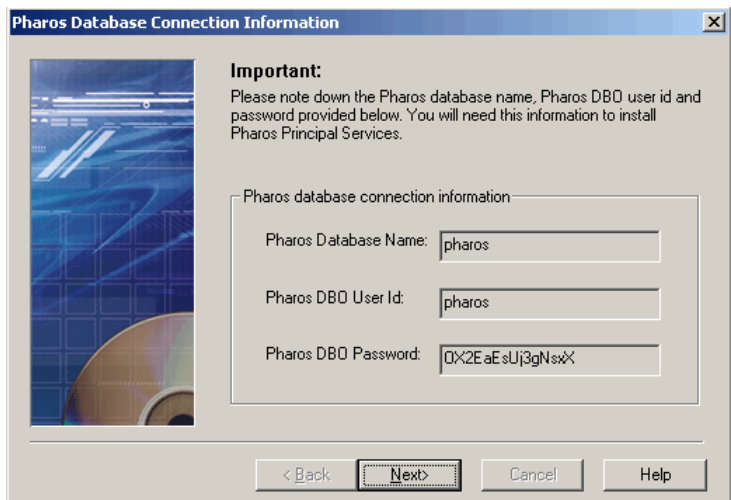
This screen shows important Pharos Database connection information.

Make sure to keep a record of the following database information:

- Pharos Database Name
- Pharos DBO User ID
- Pharos DBO Password

You will need this information to install Principal Services.

Click **Next** to continue.



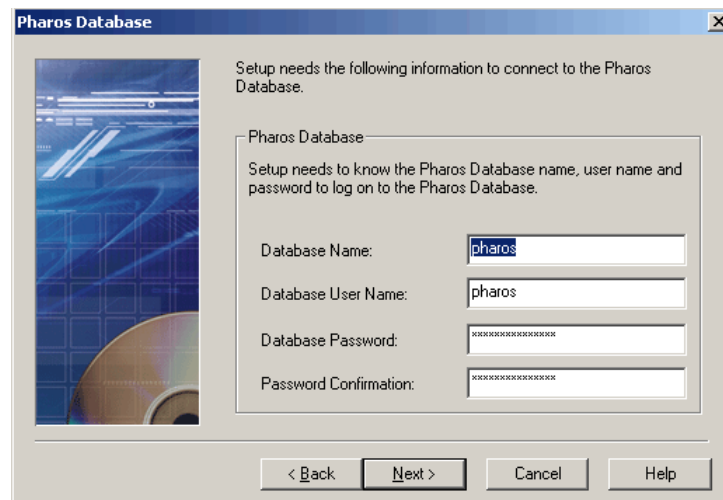
Pharos Database

Note: This screen appears only when installing the Database and Principal Services on separate machines.

Enter the database name and database logon details for the Pharos Database. Then click **Next** to continue.

***Note:** In a default install, the database name and user name are set to "pharos".*

*In the **Database Password** field, enter the password you copied from the Database Information Screen when you installed the Database.*



Pharos EDI Service

Pharos EDI Server Password

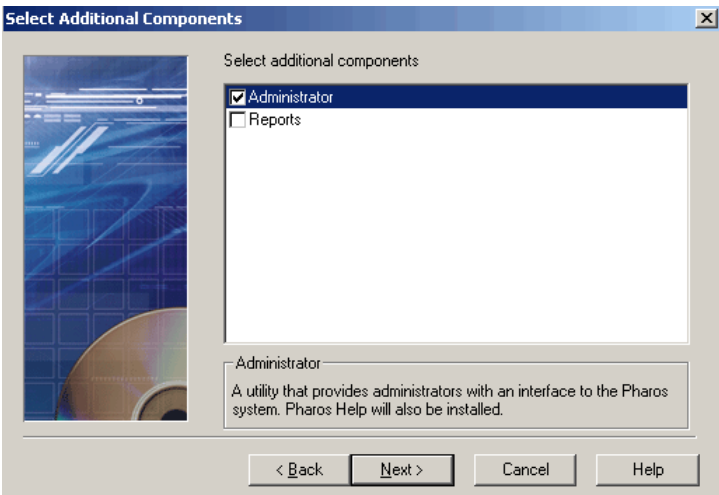
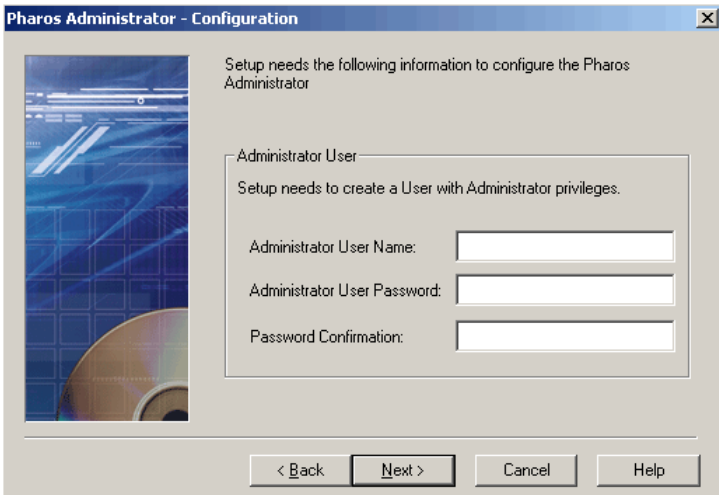
All external clients that communicate with the EDI Server authenticate themselves by supplying the password you create here.

Enter the password and click **Next** to continue.

The **EDI Server Password** can be viewed later in Pharos Administrator on the **System Settings > Security** context.



Pharos Administrator

| | |
|--|---|
| <p>Select Additional Components</p> <p>Select Administrator from the Select Additional Components screen and then click Next to continue.</p> |  <p>Select Additional Components</p> <p>Select additional components</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Administrator <input type="checkbox"/> Reports <p>Administrator A utility that provides administrators with an interface to the Pharos system. Pharos Help will also be installed.</p> <p>< Back Next > Cancel Help</p> |
| <p>Administrator User</p> <p>If no Administrator-level users are detected in the Pharos Database, an Administrator must be created.</p> <p>Enter details for a new user account to be created and then click Next to continue the install.</p> |  <p>Pharos Administrator - Configuration</p> <p>Setup needs the following information to configure the Pharos Administrator</p> <p>Administrator User Setup needs to create a User with Administrator privileges.</p> <p>Administrator User Name: <input type="text"/></p> <p>Administrator User Password: <input type="password"/></p> <p>Password Confirmation: <input type="password"/></p> <p>< Back Next > Cancel Help</p> |

Typical Installation Workflows

The following section outlines the typical installer workflow for the common Uniprint Suite roles. Each of these workflows assumes that the Pharos Principal Services are already installed and operational.

Installing Print Services

The Print Services components are installed using the main installers on the Pharos CD image.

To install the Print Service components on a computer:

1. Access the Pharos CD image from the computer on which you want to install the Print Service components.
2. If the installers do not start automatically, run **setup.exe** in the root directory of the CD image.
3. Select **Install Pharos** from the main splash screen.
4. Click **Next** at the Welcome screen.
5. If any other Pharos components are installed on this computer, they will be listed. Click **Next**.
6. Leave the install directory as the default. Click **Next**.
7. Select "Print Services" and click **Next**.
8. Enter the network name of the server on which you installed the Pharos Database Service and click **Next**.
9. Check the installation details and click **Start**.
10. The installation will commence. Once the installation is complete, click **Finish**.
11. You will be asked to restart the computer. Click **OK** to allow the installer to perform the reboot.

Once the Print Service components are installed, they are listed under their server name on the **System > Server Configuration** context in the Administrator.

Installing SignUp Services

The SignUp Service component is installed using the main installers on the Pharos CD image.

To install the SignUp Service component on a computer:

1. Access the Pharos CD image from the computer on which you want to install the SignUp Service components.
2. If the installers do not start automatically, run **setup.exe** in the root directory of the CD image.
3. Select **Install Pharos** from the main splash screen.
4. Click **Next** at the Welcome screen.
5. If any other Pharos components are installed on this computer, they will be listed. Click **Next**.
6. Leave the install directory as the default. Click **Next**.
7. Select "SignUp Services" and click **Next**.
8. Enter the network name of the server on which you installed the Pharos Database Service and click **Next**.
9. Check the installation details and click **Start**.
10. The installation will commence. Once the installation is complete, click **Finish**.
11. You will be asked to restart the computer. Click **OK** to allow the installer to perform the reboot.

Installing the Pharos EDI Service

The Pharos EDI is installed from the main Pharos CD image.

Before installing the EDI Service, make sure of the following:

- At least one server has already been with Pharos Print Services or Pharos SignUp Services.
- On the computer on which you will be installing the EDI Service, the following pre-requisites must be installed:
 - Microsoft Internet Information Service 5.0 or later is installed.
 - Microsoft .NET Framework 3.5 is installed.

To install the Pharos EDI Service:

1. Access the Pharos CD image from the computer on which you want to install the EDI Service components.
2. If the installers do not start automatically, run **setup.exe** in the root directory of the CD image.
3. Select **Install Pharos** from the main splash screen.
4. Click **Next** at the Welcome screen.
5. If any other Pharos components are installed on this PC, they will be listed. Click **Next**.
6. Leave the install directory as the default. Click **Next**.
7. Select "EDI Service" and click **Next**.
8. Enter the network name of the machine on which you installed the Pharos Database Service and click **Next**.
9. Enter the EDI service password that clients will use to connect to the EDI Server and click **Next**.
10. Check the installation details and click **Start**.
11. The installation will commence. Once the installation is complete, click **Finish**.
12. You will be asked to restart the computer. Click **OK** to allow the installer to perform the reboot.

Once the computer has restarted, you can check the EDI Service status in the Pharos Administrator on the **System > Server Configuration** context.

Installing Server Components on a Cluster

Installing server components on a cluster server uses a similar installation process as a standard server installation. However, some additional preparation, installation and post-installation steps are required. This section provides instructions on the process of installing Uniprint Suite server components on a Microsoft Failover Cluster.

These instructions assume that Uniprint is being installed on a Windows Server 2003 cluster. Where the process varies for Windows Server 2008, the differences will be called out in a footnote or separate section.

Supported Configurations

The Uniprint Suite server components can be installed in an active/passive mode on a Microsoft Failover Cluster. This means that the Uniprint Suite components (and any other services that these components depend on) can only be listed as resources in one resource group in the cluster. Effectively, this means that the services can only be running on one node at a time. Active/Active clustering is not supported.

Since the Print Service components are dependent on the Microsoft spooler, the spooler can also only be listed as a resource in one resource group (i.e. it can only be active on one node at a time).

Before You Begin

These instructions assume familiarity with Microsoft Failover Clusters and the terms associated with clustering technology.

In addition to the standard pre-requisites, ensure that the following additional pre-requisites are met:

- Microsoft Failover Cluster environment built on the following Operating Systems
 - Windows Server 2003 Enterprise Edition (32 and 64 bit)
 - Windows Server 2008 Enterprise Edition (32 and 64 bit)
 - Windows Server 2008 R2 (R2 is 64-bit only)
- Clustered Microsoft SQL server 2005 or later
- MSDTC (Microsoft Distributed Transaction Coordinator)

Before you begin the installation, ensure the cluster environment is functioning correctly. Create the required resource group (refer to the “Preparing Cluster for Installation” section on page 39) and ensure that this resource group can be moved between nodes without issues.

Note: If the Pharos Database is hosted on a remote SQL Server instance (i.e. SQL is not running on the cluster), you do not need a clustered SQL Server and MSDTC.

Typical Order of Installation

If you are installing both Principal Services and other roles on the same cluster, you will need to install the Principal Services first (as you would with a standard installation). If the Principal Services are hosted on another server, you can simply install the required roles on the cluster.

1. Installing Pharos Database and Principal Services

- a. Prepare the cluster for installation.
- b. Install the Pharos Database and the Pharos Principal Services on the first, active node.
- c. Fail-over to the other node.
- d. Install the Principal Services on the second node.
- e. Configure the Pharos Principal Services as generic cluster resources and add to the resource group.
- f. Validate the installation.

2. Installing Print Services, SignUp Services, EDI Services and Web Components

- a. Prepare the cluster for installation.
- b. Install Print Services, SignUp Services, EDI Services and/or Web Components on first, active node.
- c. Fail-over to the other node.
- d. Install the same Print Services, SignUp Services, EDI Services and/or Web Components on second node.
- e. Configure Print Services, SignUp Services and/or Web Components.
- f. Validate the installation.

Preparing Cluster for Installation

Initial preparation of a cluster requires the creation of a cluster resource group that will be used as the “virtual server” for the various Uniprint Suite services. This group should be set up with the following resources:

- **Physical Disk:** The shared disk used to store data files (e.g. spool files). The space required on the shared disk will depend largely on the SQL Database sizing requirements and the storage space required for spool files.
- **IP Address**
- **Network Name:** This network name will be used by all other components to connect to the components installed on the cluster.

If the Pharos Database is being installed on this cluster, the resource group should also include these SQL resources:

- **SQL Server**
- **SQL Server Agent**
- **SQL Server Fulltext**
- **Microsoft DTC**

Note: If the Pharos Database is being installed on the cluster, the SQL Server instance must be installed on the cluster. However, SQL Server does not need to be in the same resource group as the other Pharos services.

If the Print Services are being installed on this cluster, the resource group should also include:

- **Microsoft Spooler**

Installing Database and Principal Services

The installer will automatically detect the presence of a cluster. When a cluster is detected, it will prompt you for the virtual host name of the cluster rather than automatically using the host name of the physical node.

Before You Begin

Prepare the cluster as specified in the “Preparing Cluster for Installation” section on page 39.

In addition, make sure that the physical node you are installing on is the active node and ensure that the other physical node of the cluster is running.

Installing the Database and the Principal Services on the First Node

To install the Database and the Principal Services on the first node:

1. Run **setup.exe** on the first node. This node must be currently active, i.e. it owns the disk resource, etc.
2. On the **Select Components** screen, select the **Database** and **Principal Services** roles.
3. Optional: Tick the **Enable the Pharos Online Services** checkbox if you want to enable this feature.
4. In the Virtual Server Name field, enter the Virtual Server Name of the cluster resource group that the Pharos services will be part of. Pharos clients will use this name to access the Pharos services.
5. Click **Browse** to locate the registry file containing your license information.
6. In the **License Agreement** screen, accept the terms of the license and click **Next** to continue.
7. In the Microsoft SQL Server Name field, select or enter the SQL Server name that the Pharos Database should be installed on.
 - a. If the SQL Server is running in the cluster, enter the Virtual Server Name of the resource group that SQL Server is part of.
 - b. If the SQL Server is on a remote machine, enter the server name or server / instance name of the remote SQL Server.
8. Click **Next** to continue.
9. Enter the **SQL Server Administrator User Name** and **SQL Server Administrator Password**.
10. Enter the details of a logon account that will be used to log on to Pharos Administrator.
11. Click **Start** to begin the installation.
12. Once the installation is finished, click **Finish** to exit. It is not necessary to restart your computer; select **No** at this point.

After installing the Pharos Database and the Pharos Principal Services to the first node, the next step is to install **only** the Principal Services components on the second node. You do **not** need to install the Pharos Database on the second node.

Installing Principal Services on the Second Node

To install Principal Services on the second node:

1. Go to the second node and move the resource group to this node. The second node is now your active node.
2. Run **setup.exe** on this node.
3. On the **Select Components** screen, select the **Principal Services** role only.
4. The installation is generally the same as installing on the first node. However, the following additional information is needed to install the Principal Services to the second node:
 - a. In the **Virtual Server Name** field, enter the Virtual Server Name of the cluster resource group that the Pharos services will be part of. Pharos clients will use this name to access the Pharos services.
 - b. In the **Microsoft SQL Server Name** field, enter the SQL Server name that the Pharos Database is installed on.
 - c. Enter the **Database Name, Database User Name and Password**. In a default install, the database name is set to "pharos".
Copy the value of the User Name and Password entry from the following registry of the first node:

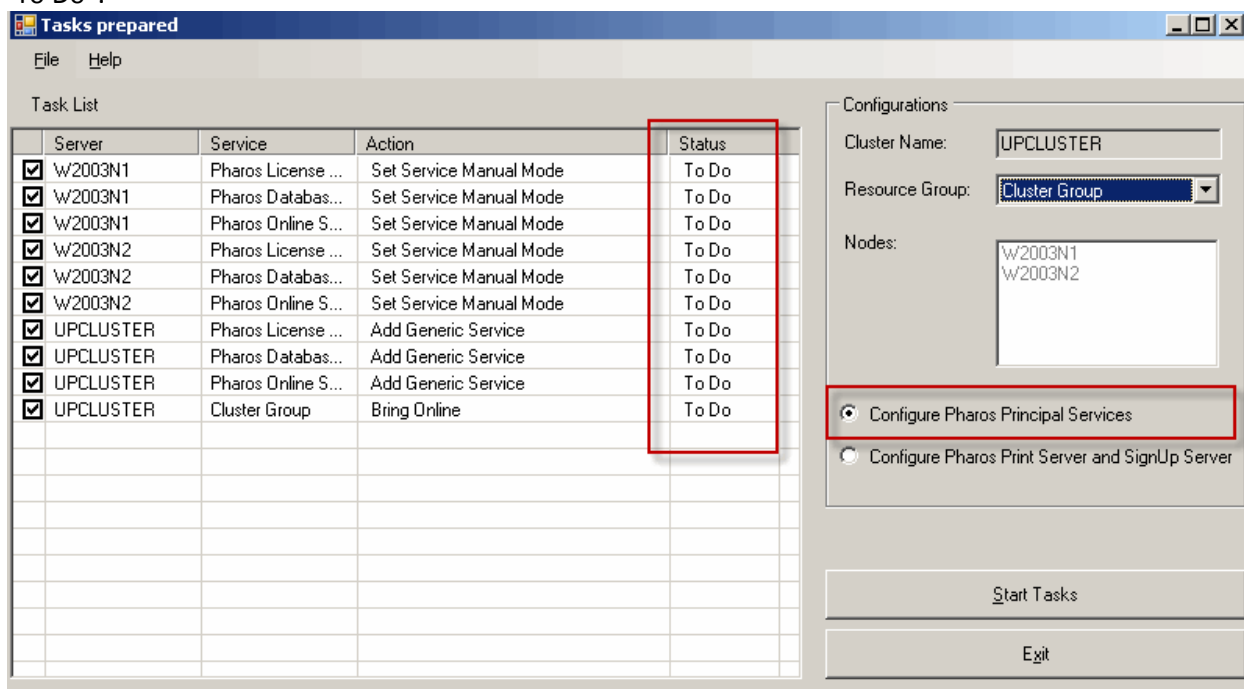
[HKLM\Software\Pharos\Database Server\Database]@User Name
[HKLM\Software\Pharos\Database Server\Database]@Password
5. Click **Browse** to locate the registry file containing your license information. Then click **Next** to continue.
6. Click **Start** to begin the installation.
7. Once the installation is finished, click **Finish** to exit. It is not necessary to restart your computer; select **No** at this point.

Configuring the Pharos Principal Services as Cluster Resources

After installing the Pharos Database on the first node and Pharos Principal Services on the two nodes, the next step is to add the Pharos Principal Services as a clustered service. A cluster configuration tool, **ClusterConfiguration.exe**, is provided to simplify the process of adding the Pharos Principal Services as a cluster resources and adding these to the resource group.

To configure the Pharos Principal Services using the Cluster Configuration Tool:

1. On the first node, browse to **C:\ Program Files\Pharos\bin\cluster** to run the **ClusterConfiguration.exe**.
2. This tool will scan the cluster and prepare a task list as shown below. The **Status** column shows "To Do".



3. Ensure the correct cluster resource group is selected in the **Resource Group** combo-box.
4. Click the **Start Tasks** button. There is no need to reboot both nodes.
5. After configuring the Pharos Principal Services, the **Status** column for the Pharos Principal Services on both nodes should be "Done".

Validating the Installation

You can validate the installation by checking the status of the cluster group. To do this:

1. Open the Cluster Administrator¹ and navigate to the resource group.
2. Verify that the following cluster resources have a status of "Online":
 - a. Pharos Database Service

¹ Or **Failover Cluster Management** console on Windows Server 2008 Clusters

- b. License Service
 - c. Online Service
3. To test fail-over, right click on the resource group and select “**Move Group**”. The resources will be moved to the other node. If successful, all resources should be shown as “**Online**”.

Installing Other Pharos Services

Before You Begin

Prepare the cluster as specified in the “Preparing Cluster for Installation” section on page 39.

In addition, make sure that the physical node you are installing on is the active node and ensure that the other physical node of the cluster is running.

If this cluster will also be running the Database and Principal Services in addition to the Print Services, SignUp Services, etc, first complete the installation process covered in the “Installing Database and Principal Services” section on page 40.

Installing Print Service, SignUp Service, EDI Service and Web Services

After installing the Pharos Database and the Pharos Principal Services (on this cluster or another server – standard or clustered), the next step is to install the other Pharos components on both nodes.

To install the Print Service, SignUp Service, EDI Service and/or Web Services:

1. Run **setup.exe** on the currently active node, i.e. this node should own the resource group that the Pharos services will be part of.
2. If you installed the Database and Principal Services already on this cluster, the installer will detect that the Database and Principal Services components have already been installed on the computer.
3. Select one or more of the following Pharos components to install:
 - a. Print Services
 - b. SignUp Services
 - c. EDI Service
 - d. Web Services
4. Enter the **Virtual Server Name** of the cluster resource group that the Pharos services will be part of.
5. If the Database and Principal Services are already installed on the cluster, these Pharos components need to be installed under the same virtual server/resource group as the Pharos Principal Services.
6. Enter the **TCP/IP Host Name** of the computer that houses the Pharos Database Service.
 - a. If the Database and Principal Services are already installed on this cluster, enter the virtual server name of this cluster.
 - b. If the Database and Principal Services are installed on a separate server, enter the host name of that server.

7. If installed the EDI service, enter a password for the Pharos EDI Server. Make sure to keep a record of this password as it may be needed when configuring external devices and clients.
8. Click **Start** to begin the installation.
9. Once the installation is finished, click **Finish** to exit. It is not necessary to restart your computer; select **No** at this time.
10. Open the second node and fail over the resource group to this node.
11. Repeat steps 1- 8 on the second node.

Configuring the Print Server and SignUp Server as Cluster Resources

After installing the Pharos Print Server, SignUp Server and Web Components on the two nodes, the next step is to add these services as cluster services. You can use the Cluster Configuration tool to simplify the process of adding the Pharos Services as a cluster resources and adding these to the resource group.

The Web Components require some manual configuration. Refer to the section “Configuring Web Components” on page 45.

To configure the Print Server and/or SignUp Server using the Cluster Configuration Tool:

1. Browse to **C:\ Program Files\Pharos\bin\cluster** to run the **ClusterConfiguration.exe**. This tool will scan the cluster and prepare a task list.
2. Ensure that the **Configure Pharos Print Server and SignUp Server** radio-button is selected.
3. Click the **Start Tasks** button. This will add Pharos Print Services and SignUp Services to the selected cluster group.
4. Reboot both nodes to finish installation.

Validating the Installation

The Print Services and/or SignUp Service should be working at this point. Open the Cluster Administrator and navigate to the cluster resource group² that contains the Pharos components. You should be able to see the following services with a status of “Online”:

- Pharos Print Service
- Pharos Popup Service
- Pharos LPD Service
- Pharos SignUp Service

Initiate a failover by moving the resource group to the other node to verify that the Print Services and the SignUp Service are installed properly.

Note: All print drivers need to be installed on both physical nodes of the cluster and on the virtual node.

Note: Only network printers, not local printers, can be added to the clustered Print server.

² Application or Service on Windows Server 2008 Clusters.

Configuring Web Components

Microsoft Internet Information Services (IIS) is not managed as a cluster resource by Microsoft Failover Clustering. The Uniprint Suite web components still work by running multiple instances of IIS. Since only the active node will own that network name resource, effectively only one IIS instance will serve requests at a time.

Note: Ensure that IIS is not configured as a cluster resource.

For the instructions below, the example path names assume that the drive letter assigned to the disk resource is **S:**.

Create the Shared Folder

For the Uniprint web page to function, the installation packages must be stored on the shared disk resource to ensure they are available regardless of which node is active.

To do this, from a command prompt run the following command in the active node:

```
xcopy /E C:\Inetpub\wwwroot\Uniprint S:\Inetpub\wwwroot\Uniprint
```

Configure Uniprint to Use the Shared Folder

Once you have created the shared folder, open the Pharos Administrator. Click on the **Packages > Packages Global Settings** context. Change the Package Build Location to:

```
\\<your Virtual Server Name>\$S\Inetpub\wwwroot\Uniprint
```

Configure IIS to Use the Shared Folder

Apply the following steps to both nodes:

1. On the active node, open IIS Manager by running **inetmgr.exe**.
2. Under “Web Sites”, expand the “Default Web Site”. Then right-click on the **Uniprint** virtual directory and select **Properties**³.
3. On the **Virtual Directory** tab⁴, change the local path to **S:\Inetpub\wwwroot\Uniprint** and click **Apply**. Now Uniprint web site can be accessed using the virtual network name.
4. Fail-over the resource group to the other node.
5. Repeat steps 1 – 3 on the second node.

³ **Managed Application > Advanced Settings** on Windows Server 2008 Clusters.

⁴ In the **Advanced Settings** dialog, change the Physical path to **S:\Inetpub\wwwroot\Uniprint** and click **OK**.

If you want to prevent direct access to web server using the physical server name (i.e. the hostname of the physical node), perform the following on each node:

1. Open IIS Manager by running **inetmgr.exe**.
2. Under “Web Sites”, right-click on the “Default Web Site” and select Properties.
3. On the **Web Site** tab, change the **IP address** to bind to the virtual server IP address only. Now only the virtual server can respond to requests.

SSL Certificates

To apply SSL certificates to the web site (e.g. to secure EDI communications), an SSL certificate request must be generated from each node. The SSL certificate must use the virtual server name and not the name of the physical node. For more information on requesting an SSL certificate, please refer to the “Setting up SSL” section on page 55.

Once the SSL certificates have been applied, you can verify the certificate name on each node:

1. Open IIS Manager by running **inetmgr.exe**.
2. Under “Web Sites”, right-click on the “Default Web Site” and select Properties.
3. On the **Directory Security** tab, click **View Certificate** to verify that the server certificate is using the Virtual Server Name of the cluster resource group.

Installing SignUp Clients

The SignUp Client is installed using the **SignUpClientInstaller.exe** install package. You can obtain the SignUp Client install package in two ways:

- Open the **Packages > Client Installers** context in the Pharos Administrator. Select the SignUp Client Installer. This section contains a description of the SignUp client install package and where to find it. Simply click on the **Package Location** path to open a Windows Explorer window to that location.
- By browsing to the location **Program Files\Pharos\Client Installers** directory of all Pharos Administrator computers.

The SignUp Client install package can be installed manually using a simple wizard or automatically using the command line (i.e. the required installation information is supplied as parameters).

To install the SignUp Client:

1. Run the **SignUpClientInstaller.exe** install package on the computer and then click **Next** on the Welcome screen.
2. Enter the network name of the server on which you installed the Pharos Database and click **Next**.
3. Select the Branch that this computer should belong to and click **Next**.
 - a. You can add additional branches using the Pharos Administrator.
4. Select the Computer Type and Computer Group that this computer should belong to and click **Next**.
 - a. You can add additional computer types and computer groups using the Pharos Administrator.
5. Enter a Display Name and Description for the computer and then click **Next**.
 - a. The display name and description are displayed to end user when they reserve the computer. The information is intended to help them to find the correct computer.
6. Check the installation details and click **Start**.
7. The SignUp Client installation will start. Once the installation is complete, click **Finish**.
8. You will be asked to restart the PC. Click **OK** to allow the installer to reboot the computer.

Once the SignUp Client is installed, it will control access to the computer. A Computer entry for the computer is automatically created in Pharos Administrator. You can view and edit the computer details on **SignUp > Computers** context.

Command Line Options

The SignUp Client install package can be run from the command line. The following parameters can be specified:

| Parameter | Description |
|--------------------------|--|
| /s | Instructs the installer to run in silent mode. No dialogs are shown to the user and default values are used, unless specified by other command line options. |
| /d "server" | Host name of the Pharos Database Server. This value must always be specified. |
| /n "portnumber" | Port number of the Pharos Database Server. Defaults to port number "2355" if not specified. |
| /b "branch" | The name of the Branch that the computer belongs to. |
| /g "group" | The name of the Computer Group that the computer belongs to. |
| /t "type" | The name of the Computer Type that the computer belongs to. |
| /dn "displayname" | The computer's Display Name. This is the name that will be visible to users of the SignUp system, and does not have to be the computer's host name. |
| /ds "description" | The computer's description, which should include information on where the computer is located. |

All parameters are optional, except for /d. If no Branch, Computer Group or Computer Type are specified, the installer will select defaults from the Pharos Database after connecting to the Database Server. All values must be specified inside double quotes.

Installing Popup Clients

The Popup Client is installed using Pharos install packages. Install packages automate the process of setting up Pharos Popups on workstations. As well as installing the Uniprint client application(s), they set up one or more Pharos Queues as printers on the workstation. The install package can also include:

- An uninstaller to allow the end user to remove the package at any time.
- An updater service that automatically connects to the Uniprint server to check for updates and changes. If an update is detected, the new files are downloaded and applied.

Standard install packages are self-contained and can be simply copied and run on each workstation. "Lite" versions of the install packages are also available, which are smaller executables that detect the operating system and any existing components, and then download only those components that are needed.

Pre-requisites

Before creating Pharos install packages, ensure that the following pre-requisites are met:

- Make sure that all Queues are using the correct drivers.
- If you plan to use "Lite" packages or the "Automatic Update" feature, you must specify the Package Download and Update Location in the **Packages > Packages Global Settings** context. The Package Download and Update Location is the URL of the web site that modules will be downloaded from.

Installing Popup Clients involve the following steps:

1. Creating an install package.
2. Deploying the install packages on the workstations.

Once the Popup Client is installed, users can easily submit print jobs to the Uniprint server. In addition, the system can be configured to request additional information from the user each time they print.

Creating Install Packages

Install packages are created in Pharos Administrator. In summary, the process of creating and deploying install packages involves the following steps:

1. Specify the global properties of the install packages.
2. Add a Custom Module (optional).
3. Add a Package Definition.
4. Build packages based on the definitions.

Note: For detailed information on how to create and deploy install packages, see the *Online Help*.

Before creating install packages, you need to specify where these install packages will be stored and how they will be accessed. The **Packages > Packages**

Global Settings context contains settings that affect how the install packages are generated and distributed.

Each install package contains a number of modules, which install a specific component or queue. Pharos install packages can also run user-created modules to add custom functionality to install packages. For example, a custom module could be used to install additional applications along with the Pharos software. A custom module can be an executable, a batch file or a self-extracting zip file. Contact Pharos Support for assistance in creating custom modules.

Package definitions are set up in Pharos Administrator on the **Packages > Package Definitions** context. Once defined, packages are built by using the **Build Package** action available in this context.

When packages are built, the package creator utility performs a number of checks – if any issues are found, an error or warning will be displayed. In addition, the creator utility checks what operating systems and platforms are supported by the print drivers associated with the selected Queues. It will collect these print driver files and incorporate them into the package.

For each Package Definition, the following files are created:

- Full packages for each supported operating system (based on both the operating systems supported by Uniprint and the operating systems supported by the print drivers).
- One Lite package.
- Modules for all components and operating systems included in the full packages.

In addition, a “manifest” containing details of all modules and packages is created. This XML document, called **Manifest.xml**, is used by the package updater to detect updates and changes. It is formatted with an XSL style sheet, and can be viewed in a web browser.

Deploying Install Packages

Once created, packages can be distributed by a variety of means. It is recommended that they are made available from a shared location, so that users can download and install the packages relevant to them without any assistance. This shared location may be a network share or a web site.

If packages are made available on a web site, several options are available for presenting the packages to users:

- You can write your own web pages, containing links to the package files.
- Users can be given access to the **Manifest.xml** file, which contains links to all available packages.
- The *Pharos Print Map Builder* can be used to create a series of web pages containing links to Lite packages. The Map Builder is installed with Pharos Administrator; it can be opened by clicking the **Pharos Print Map Builder** action on **Packages > Package Definitions** context.
- Users can be given access to the Uniprint Web Site, which contains links to all available packages and maps. The Uniprint Web Site is installed from the main installers.

Installing Pharos Stations

You can install Pharos Stations using the **PharosStationInstaller.exe** install package. You can obtain the Pharos Station install package in two ways:

- By navigating to the **Packages > Client Installers** context in the Pharos Administrator. Select the Pharos Station Installer section, which contains a description of the install package and where to find it. Simply click on the **Package Location** path to open a Windows Explorer window to that location.
- By browsing to the location **Program Files\Pharos\Client Installers** directory of all Pharos Administrator computers.

Run the package executable on each computer that you want to install the Pharos Station component. In addition, you can run the package executable on computers that already have the Pharos Station component to upgrade those computers. The Pharos Station install package can be installed manually using a simple wizard or automatically using the command line (i.e. the required installation information is supplied as parameters).

Pre-requisites

In addition to a supported operating system, the computer must have following pre-requisites:

- Microsoft Internet Explorer 5.0 or later .The Pharos installers check for the presence of IE 5.0 or later. If it is not found, the Pharos Station cannot be installed.
- Microsoft .NET Framework 3.5

Before You Begin

A Pharos Station record must already be configured for the computer that you are installing on, i.e. there must be a Pharos Station entry in the Pharos Database. The network name of the computer must match the network name of the Pharos Station entry.

Installing the Pharos Station

To install the Pharos Station component on a computer:

1. Run the **PharosStationInstaller.exe** install package on the computer and click **Next** at the Welcome screen.
2. Enter the network name of the machine on which you installed the Pharos Database Service and click **Next**.
3. Check the installation details and click **Start**. The Pharos Station installation will start.
4. Once the installation is complete, click **Finish**.
5. You will be asked to restart the PC. Click **OK** to allow the installer to reboot the computer.

Once the Pharos Station is installed, you can start it from the Start menu at **Programs > Pharos**. Any changes to the Pharos Station's configuration are made in Pharos Administrator on the **Release Stations** context.

Command Line Options

The Pharos Station install package can be run from the command line. The following parameters can be specified:

| Parameter | Description |
|-------------------------------|--|
| <code>/s</code> | Instructs the installer to run in silent mode. No dialogs are shown to the user and default values are used, unless specified by other command line options. |
| <code>/d "server"</code> | Host name of the Pharos Database Server. This value must always be specified. |
| <code>/n "portnumber"</code> | Port number of the Pharos Database Server. Defaults to port number 2355 if not specified. |
| <code>/c "colorscheme"</code> | Name of the Pharos Station color scheme to use. The following schemes are available: <ul style="list-style-type: none"> • "Pharos Vx3" - the default Pharos scheme • "Blue Sky" - a color scheme in shades of blue • "Brain Food" - a library-themed color scheme in shades of orange • "Building Blocks" - a color scheme in shades of yellow • "Expedition" - a color scheme in shades of brown • "Explore!" - a children's scheme in shades of green • "Hit the Books" - an education-themed scheme in shades of gray and brown • "Mist" - a color scheme in shades of gray and light blue • "Print Control" - a corporate-themed scheme in blue |

All parameters are optional, except for `/d`. All values must be specified inside double quotes.

Installing Pharos Remote

You can install Pharos Remote using the **RemoteInstaller.exe** install package. Pharos Remote is basically a light-weight Pharos Administrator; it only includes contexts required for user and print job management such as Users, Alerts, Transactions, Output Management Overview, Queued Jobs and Printed Jobs.

You can obtain Pharos Remote install package in two ways:

- By navigating to the **Packages > Client Installers** context in the Pharos Administrator. This context contains a description of the install package and where to find it. Simply click on the **Package Location** path to open a Windows Explorer window to that location.
- Browse to the location **Program Files\Pharos\Client Installers** directory of all Pharos Administrator computers.

Pre-requisites

Microsoft .NET Framework 3.5 must be installed before installing Pharos Remote.

Installing Pharos Remote

To install the Pharos Remote application on a computer:

1. Run the **RemoteInstaller.exe** install package on the computer and click **Next** at the Welcome screen.
2. Enter the Database Server Host Name of the machine on which you installed the Pharos Database Service and click **Next**.
3. Click the **Start** button to begin the installation. The Pharos Remote installation will start.
4. Once the installation is complete, click **Finish**.
5. You will be asked to restart the computer. Click **OK** to allow the installer to reboot the computer.

Note: *If you installed the web-based Remote application from Uniprint 8.0, the Uniprint 8.2 upgrade will remove this web-based Remote.*

After Pharos Remote is installed, you can start Pharos Remote from the Start menu at **Programs > Pharos > Pharos Remote** on the computer.

Installing Pharos Reports

Pharos Reports is installed using the main installers on the Pharos CD image.

To install the Pharos Reports component on a computer:

1. Access the Pharos CD image from the computer on which you want to install the Pharos Reports component.
2. If the installers do not start automatically, run **setup.exe** in the root directory of the CD image.
3. Select **Install Pharos** from the main splash screen.
4. Click **Next** at the Welcome screen.
5. If any other Pharos components are installed on this computer, they will be listed. Click **Next**.
6. Leave the install directory as the default and click **Next**.
7. Select "Additional Components" and click **Next**.
8. Select "Reports" and click **Next**.
9. Enter the network name of the machine on which you installed the Pharos Database Service and click **Next**.
10. Check the installation details and click Start. The Pharos Reports installation will commence.
11. Click **Finish** once the installation is complete.

Once Pharos Reports is installed, you can start it from the Start menu under **Programs > Pharos**

Setting up SSL

Certain Pharos components, in particular the Pharos External Device Interface (EDI), use HTTP to communicate with each other. This communication can be secured with SSL encryption. Setting up encryption for secure communications requires the installation of certificates, which are supplied as a free service from Pharos Systems.

When to Use SSL

The following Pharos components communicate via HTTP, which can be secured with SSL:

- Services, terminals, and iMFPs communicating with the Pharos EDI Service
- Client web browsers accessing the SignUp Nerve Center

Note: Where a service communicating with the EDI is on the same machine as the EDI, secure communications are not required (as no data is transmitted over the wire).

Setting up Encryption

To secure these communication paths with SSL, you must perform the following steps:

1. Install the Pharos CA certificate on all computers that will access the server.
2. Request a server certificate for the server component from Pharos Support.
3. Install the server certificate on the server.
4. Direct the relevant components to use SSL

Installing the Pharos CA Certificate

The Pharos CA certificate is required to verify the server certificate during any SSL session (i.e. when communicating with the server). The Pharos CA certificate is publicly available—you can find it on the Pharos CD. This certificate must be installed on all clients that will be accessing the server. For example, when securing communication with the Pharos EDI Server, the CA certificate must be present on all terminals or computers running software that will contact the EDI. The Pharos Omega terminals and Pharos integrated Multifunction Printers (iMFPs) come with the CA certificate already installed.

To install the Pharos CA certificate on a computer:

1. Access the Pharos CD image from the computer on which you want to install the Pharos CA certificate.
2. Browse the CD image and open the **server\edi.net** folder. The Pharos CA certificate is called **PharosCACertificate.crt**.
3. Double-click the certificate. If prompted, select **Open**.
4. Click **Install Certificate** on the dialog that opens. This starts the Certificate Import Wizard.
5. Click **Next** on the opening screen.

6. Select **Place all certificates in the following store** on the Certificate Store screen and click **Browse**.
7. Select the store **Trusted Root Certification Authorities > Local Computer** and click **OK**. (You may need to check the Show physical stores box to see this store.)
8. Click **Next**.
9. Click **Finish**.

Requesting a Server Certificate

To obtain a certificate from Pharos Systems, you must generate a certificate request using Microsoft Internet Services Manager and send it to Pharos Systems. The certificate request is simply a text file containing information about your server in an encoded format.

Requesting a Server Certificate using IIS 6.0

To generate a certificate request using IIS 6.0:

1. Open the Internet Services Manager (**Control Panel > Administrative Tools**).
2. Right-click the Web site on which you want to enable encryption (e.g. "Default Web Site"), and click **Properties**.
3. Click the **Directory Security** tab, and then click **Server Certificate** to start the Web Server Certificate Wizard.
4. Click **Next** to start the wizard, and select **Create a new certificate**.
5. Click **Next**, and select Prepare the request now, but send it later.
6. Click **Next**, and give your certificate a name. You may want to match it with the name of the Web site. Now, select a bit length; the higher the bit length, the stronger the certificate encryption.
7. Click **Next**, and type your Organization and Organizational Unit. These values do not need to match any Active Directory entries.
8. Click **Next**, and then enter the common name.

Note: Server certificates are specific to the common name that they have been issued to, so it is important that the common name is correct. *The common name must be the same as the Web address you will be accessing when connecting to the secure site.* Common names are typically composed of Host + Domain Name and will look like "servername" or "servername.domain". If the certificate is used on a cluster, the common name should be the Host + Domain Name of the virtual server name of the resource group that contains the Pharos services.

9. Click **Next**, and type your country, state, and city or locality.
10. Click **Next**, and select a location and file name to save your request to.
11. Click **Next** twice, and then click **Finish** to close the wizard.

This places the text file (called **certreq.txt** by default) into the location you specified in step 10. The request can now be emailed to Pharos Systems at support@pharos.com.

Requesting a Server Certificate using IIS 7.0

Microsoft **Windows Server 2008** and Windows Server 2008 R2 use **Internet Information Services (IIS) 7.0**. With this new version of IIS, there are new methods of requesting and installing SSL certificates. The following section shows instructions on how to obtain a Server Certificate using IIS 7.0.

To generate a certificate request using IIS 7.0:

1. Open the Internet Services (**IIS**) **Manager (Start Menu > Programs > Administrative Tools)**.
2. Right-click the server on which you want to enable encryption and then click **Server Certificates** (from IIS).
3. In the Server Certificates Actions pane, select **Create Certificate Request**. This opens the Request Certificate dialog.
4. In the **Common name** field, enter the name of your certificate. You may want to match it with the name of the Web site.

Note: Server certificates are specific to the common name that they have been issued to, so it is important that the common name is correct. *The common name must be the same as the Web address you will be accessing when connecting to the secure site.* Common names are typically composed of Host + Domain Name and will look like "servername" or "servername.domain". If the certificate is used on a cluster, the common name should be the Host + Domain Name of the virtual server name of the resource group that contains the Pharos services.

5. Enter values to the rest of the fields:
 - a. Organization
 - b. Organizational Unit
 - c. City/locality
 - d. State/province
 - e. Country/regionThese values do not need to match any Active Directory entries.
6. Click **Next**.
7. Select the Cryptographic Service Provider.
8. Select a bit length; the higher the bit length, the stronger the certificate encryption. Click **Next**.
9. Specify the file name and the location of the certificate request.
10. Click **Finish**.

This places the text file (called **certreq.txt** by default) into the location you specified in step 9. The request can now be emailed to Pharos Systems at support@pharos.com.

Installing the Server Certificate

Once the request is received and verified, Pharos Systems will generate your certificate and send it to you.

Using IIS 6.0

To install the certificate on your server using IIS 6 or lower:

1. Open the Internet Services Manager.
2. Right-click the Web site on which you want to enable SSL, and then click **Properties**.
3. Click the **Directory Security** tab, and then click **Server Certificate...** to start the Web Server Certificate Wizard again.
4. Click **Next**, and select **Process the pending** request and install the certificate.
5. Click **Next**, and enter the path and file name of your certificate.
6. Click **Next** twice, and then click **Finish** to complete the wizard.
7. Click the **Directory Security** tab, click **Edit** under Secure Communications, and on the dialog that opens check the “Require secure channel (SSL)” box. Make sure that the default “Ignore client certificates” option is selected and click OK.
8. Click the **Web Site** tab, and make sure that the SSL Port text box is populated with the port you would like SSL to run on. The default (and recommended) port is 443.
9. Click **OK** to close the Web site Properties dialog box.
10. Open the Certificates Console by opening Microsoft Management Console (enter “mmc” at a command prompt).
11. Select **Add/Remove** Snap-in from the **File** menu and click **Add**.
12. Select Certificates and click **Add**.
13. Select Computer account and click **Next**.
14. Select Local Computer and **click Finish**.
15. Click **Close** and then click **OK**.
16. The server certificate will have been installed in the Personal folder. Select the certificate and select Copy from the Action menu.
17. Go to the Trusted People folder and paste a copy of the certificate there.
18. Close the console.

The certificate is now installed on your web server and ready for use by all client components.

Note: Double-clicking on the certificate file in Windows Explorer and clicking Install Certificate on the dialog that appears starts a Web Server Certificate Wizard. However, this wizard does not install the certificate on your server; it merely places the certificate in a “store” where it can be accessed by applications. To actually install the certificate on your web server, you must go through the Internet Services Manager.

Using IIS 7.0

To install the certificate on your server using IIS 7.0:

1. Open the IIS Manager.
2. Right-click the Server on which you want to enable SSL, and then click Server Certificates (from IIS).
3. In the Server Certificates Actions Pane, add a certificate to your server.
4. On the Default Web Site, check that you have added https to your Bindings list.
5. On the **Sites** list, select Pharos EDI.
6. Double click SSL Settings and tick the "Require SSL" checkbox.
7. Click Apply.

Directing the System to Use SSL

Once both the CA certificate and the server certificate have been installed where required, SSL can be activated by informing the clients to connect to the server.

Pharos EDI

To direct clients to contact the EDI Server using SSL, configure them to connect to the server using the URL:

```
https://<server>/PharosEdi/EdiService.asmx
```

where <server> is the host name of the web server that the Pharos EDI is installed on. This should be the host name specified in the common name of the certificate.

SignUp Nerve Center

If you want to secure communication between users' web browsers and the SignUp Nerve Center, you must instruct users to browse to the following URL (note the https):

```
https://[server]/SignUp/
```

Supporting Legacy EDI Addresses in IIS7

Starting with Uniprint 8.0, the default EDI Service address was changed to point to the **EdiService.asmx** file. Some older network terminals and iMFPS use a hard coded EDI service address to connect to the EDI, e.g. **pedi.wsdl**, **pedi.asmx** and **pediservice.asmx**. In order to support these terminals, a redirection has been added to the EDI Service so that connections to old EDI Service addresses will be automatically redirected to **EDIService.asmx**.

A third-party URL rewriter is used to redirect requests to the EDIService.asmx. This redirection process is handled by the Internet Information Server (IIS).

The Pharos installer can automatically setup this redirection process for both IIS5 and IIS6. However, the Pharos installer cannot setup this process for IIS7 (Windows Server). By default, IIS7 runs in Integrated Mode which is not compatible with the third party URL rewriter.

In order for the URL rewriter to run on IIS7, you can do one of the following:

- Change the Application Pool
- Allocate a separate Application Pool

Changing the Application Pool

When the Pharos installer detects IIS7, it will disable the URLRewriteModule in the configuration file. Manual configuration is necessary to enable URL redirection.

Note: Switching from Integrated Mode to Classic Mode can potentially break other websites and services hosted on the same machine.

To manually enable URL rewriting, you will switch the Pharos EDI virtual directory from '**DefaultAppPool**' to '**Classic .NET AppPool**'. Use the following steps:

1. Enable the URLRewriteModule
2. Change the Application Pool
3. Test the connection

Step 1- Enable the URLRewriteModule

1. Open the configuration file web.config from `\inetpub\wwwroot\PharosEdi`.
2. Locate `<httpModules>` in the configuration file, and uncomment the following section to enable URL rewriting.
3. Save the configuration file.

The `<httpModules>` will look like the following:

```
<httpModules>  
<!--<add name="UrlRewriteModule" type="UrlRewritingNet.Web.UrlRewriteModule,
```

```
UrlRewritingNet.UrlRewriter"/>-->  
</httpModules>
```

After removing the comments, the <httpModules> section should look like this:

```
<httpModules>  
<add name="UrlRewriteModule" type="UrlRewritingNet.Web.UrlRewriteModule,  
UrlRewritingNet.UrlRewriter"/>  
</httpModules>
```

Step 2 - Change the Application Pool

1. Open Internet Information Services (IIS) Manager by running inetmgr.exe or by selecting **Start Menu > All Programs > Administrative Tools**.
2. Expand the **Sites** node and expand the Default Web Site node. A list of all the websites appear.
3. Right click on the PharosEDI website, and then select **Manage Application > Advanced Settings**. This opens the Advanced Settings dialog.
4. In the Advanced Settings dialog, change the **Application Pool** property from 'DefaultAppPool' to 'Classic .NET AppPool' and then click **OK**.

Note: Ensure that the **Managed pipeline mode** of the Classic.NET AppPool is set to **Classic**.

To verify the Managed pipeline mode, In the Applications Pool, right click on the **Classic.NET AppPool** and click **Basic Settings**, this opens the Edit Application Pool. Verify that the Managed pipeline mode property is set to Classic.

Step 3- Test Connection

Open a web browser and type one of following URLs, depending on the address that the terminal requires. This process is used to test if redirection works.

- <http://localhost/PharosEdi/pedi.asmx>
- <http://localhost/PharosEdi/pedi.wsdl>

If the .wsdl does not get through, you need to check the IIS handler mapping:

1. Open IIS manager by running **inetmgr.exe**.
2. Expand the **Sites** node and expand the Default Web Site node. A list of all the websites appear.
3. Click on the **PharosEDI** website, and click **Handler Mappings**.
4. In the Actions Pane, select **Add Script Map**. This opens the Add Script Map dialog.
5. In the **Request path** field, type *.wsdl
6. In the **Executable** field, enter %windir%\Microsoft.NET\Framework\v2.0.50727\aspnet_isapi.dll
7. In the **Name** field, type a name for the script map, for example wsdl
8. Click **OK**.
9. Test the redirection by typing this on a web browser <http://localhost/PharosEdi/pedi.wsdl>. This should open the EDI Service web page.

Moving the EDI Server to a separate application pool

By default, all IIS web applications run with the default application pool called **DefaultAppPool**. In this section, you will be creating a separate application pool and moving the EDI server to that application pool.

One advantage of isolating an application pool is that you can configure the application pool with special settings. Moreover, creating a separate application pool prevents other sites from affecting other sites in the application pool.

Note: Both IIS 6 and IIS 7 support application isolation.

Creating an application pool

To create an application pool:

1. Open Internet Information Services (IIS) Manager by running `inetmgr.exe` or by selecting **Start Menu > All Programs > Administrative Tools**.
2. Expand the server node and then select **Application Pools**. This opens the Application Pools page.
3. Right click on the **Application Pools** and then select **Add Application Pool**.
4. In the **Name** field, enter a name for the new application pool, for example `PharosEDIPool`.
5. In the **Managed pipeline mode** list, select **Classic**.
6. Click **OK**. This adds the new application pool to the Web Server.

Moving the Pharos EDI to the created application pool

After creating a separate application pool, the next step is to move the Pharos EDI website to this application pool.

To move the Pharos EDI to the new application pool:

1. Expand the Default Web Site node and select PharosEDI website.
2. Right click on the **PharosEDI** website, and then select **Manage Application > Advanced Settings**. This opens the Advanced Settings dialog.
3. In the Advanced Settings dialog, change the Application Pool property to the newly added application pool and then click **OK**.

Uninstalling

The Pharos uninstall program (**uninst.exe**) is installed with most Pharos components, and is available from the Start menu at **Program Files > Pharos**. It is also available on the Pharos CD image in the **setup** directory.

To remove Pharos components from a computer:

1. Run the uninstaller from the **Start** menu, or run the uninstaller from the setup directory on the Pharos CD image.
2. Click **Next** at the Welcome screen.
3. Select the component(s) to uninstall (click **Select All** to check all boxes at once) and click **Next**.
4. Specify the location of the installed Pharos files and click **Next**.
5. If you are uninstalling the Pharos Database: Enter the SQL Server administrator logon and password and click **Next**.
6. Check the uninstall details and click **Start**. This will begin the unistallation process.
7. Click **Finish** to complete the uninstallation.
8. Depending on which components were uninstalled, you may be asked to restart the computer. Click **OK** to allow the uninstaller to reboot the computer.