Phire 12.2
Hardware and Software Requirements

About This Documentation

This Phire Hardware and Software Requirements book lists out the hardware and software requirements for each of the servers that house the various technical architecture components of a Phire application. This book also lists out the minimum hardware requirements as well as the recommended hardware configuration.

This document purposely provides a high-level view to avoid too many specifics such as version numbers that may quickly become out of date. To obtain up-to-date details about supported platforms, version numbers, and the like, please visit our web site at www.phire-soft.com.

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CHAPTER 1
PeopleTools Architecture Overview

1.1   Understanding PeopleTools

Oracle's PeopleSoft Enterprise PeopleTools is the software layer on top of which Phire is developed. PeopleTools provides system-level functionality to Phire and insulates the application from having to code to the specifications of individual platforms. Essentially, Phire is written using PeopleTools and PeopleTools, in turn, handles the hardware and software dependencies necessary to support various platforms.

Phire supports numerous hardware and database choices. Phire servers run on the industry's leading hardware and software platforms. Phire looks the same to application users, regardless of the database or hardware platform being used. When determining hardware and software platform support, we mostly concern ourselves with those platforms supported by PeopleTools. In general, if a version of PeopleTools supports a platform, the Phire application written on top of that PeopleTools version also supports the platform.

1.2   Understanding PeopleSoft Pure Internet Architecture

PeopleTools and Oracle's PeopleSoft Pure Internet Architecture is the technical foundation of Phire. It is important that customers have a good understanding of the PeopleSoft Pure Internet Architecture to fully understand the platforms being supported by Phire.

The PeopleSoft Pure Internet Architecture is a server-centric architecture for deploying Internet applications to end users who access the applications through a web browser. These Internet applications are built using PeopleTool. The following diagram illustrates the various architecture pieces involved in this deployment architecture:
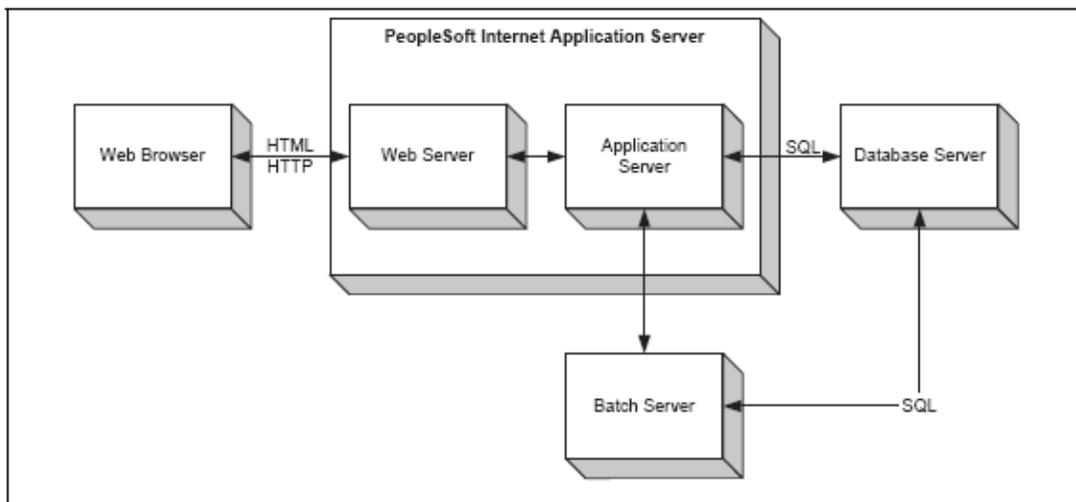
PeopleSoft Pure Internet Architecture

There are several key concepts to take away from the above diagram:

- End users access the applications through a web browser.
- The technical architecture is server centric. The heart of the architecture is the PeopleSoft Internet Application Server that consists of the web server and the application server.

1.3   Defining Phire Components

The hardware and software you need to purchase, install, and test before installing your Phire application depends on the configuration you choose. The components you need to consider include:

• *End User Workstation:* You need a computer for each employee in your company who will use Phire. Because of the PeopleSoft Pure Internet Architecture, the end user's machine just needs any supported web browser. It does not have to have database connectivity or any Phire software.

• *Database Server:* Your database server houses your Phire database (in the RDBMS of your choice). It needs sufficient disk space to accommodate your operating system, a production database, and all log files. Keep in mind that database sizes vary depending on the application's use.

• *Batch Server:* Your batch server (Process Scheduler) runs your Phire reports. Phire batch processes such as XML Publisher Reports and Application Engine are scheduled and invoked by a Process Scheduler server. The batch server maintains connectivity to the database.

• *Application Server:* The application server is designed to improve performance over a wide area network (WAN) as well as to permit communication between the end user workstation (through the web server) and the database. You can run an application server on Windows or certain UNIX or Linux platforms. It needs ample disk space for BEA Tuxedo, application server files, and database connectivity. Your application server should be a powerful machine with as much memory as possible to ensure optimum performance.

The Phire application server uses BEA's Tuxedo middleware product, which is designed to enable distributed application computing. In addition, it uses BEA's Jolt, which acts as the communications layer between the web server and the application server. The application server interprets Jolt messages coming from the web server into SQL, which it sends to the database server. Thus, SQL always takes place between the application server and the database server in a high-speed local area network (LAN), avoiding costly transmissions across WANs or lower bandwidth Internet connections.

• *Web Server:* A web server is required for the PeopleSoft Pure Internet Architecture. It serves as the link between the end user's workstation and the application server, with which it communicates via BEA's Jolt.

Note. The various servers identified above are considered "logical" servers. Many can exist on the same machine or reside on its own machine in a "physical" configuration.

CHAPTER 2
End User Workstation

2.1 Understanding the End User Workstation

The PeopleSoft Pure Internet Architecture leverages the PeopleTools application server to dynamically generate Internet applications that are built in the Application Designer. The PeopleSoft Pure Internet Architecture is not a retrofitted PeopleTools Windows client built to run on the World Wide Web, but instead is rich with web-specific features and design paradigms. It provides dynamic hyperlinks, image support, and user customizable HTML tags, enabling you to build applications that look and feel like a modern web site. The PeopleSoft Pure Internet Architecture customizations are all done through PeopleTools and therefore are upgradeable and fully global, supporting multilingual and multicurrency operations.

No end user installation is required; no Phire software resides on the end user workstation. The browser is all that is needed.

Phire is being certified on a subset of the commercially available web browsers and client operating systems on the market today.

2.2 Certified Web Browser and Client Operating Systems

Based on internal testing, Internet Explorer is the leader in performance and user interface quality. Internet Explorer 10 or 11 is the recommended web browsers due to the many improvements in download processing as well as JavaScript processing in versions 10 and 11. The following are the combinations of web browser and client operating systems Phire is certifying:

- Google Chrome 13,32, 35, 39, 43
- Internet Explorer 9, 10, 11
- Mozilla Firefox 7, 17, 24, 26, 30, 38, 42
- Apple Safari 5, 6, 7, 8, 9

2.3 End User Workstation Software Requirements

Basic end user workstation software requirements are as follows:

- Recommended browsers are Internet Explorer 10 / 11 or Firefox 38 or 42.

2.4   End User Workstation Hardware Requirements

The following end user workstation requirements are based on power user type operations such object versioning and migrations. Since these requirements stem from real-world scenarios, they are higher than the manufacturer's minimum for a given web browser and operating system combination. However, Phire will function on platforms meeting the manufacturer's minimum requirements for a given web browser and operating system combination, but will not deliver the optimal user experience.

Minimum hardware requirements:

• Pentium 2 GHz minimum (or equivalent).
• 1024 MB of memory.
• 100 MB of free disk space.
• VGA controller and display of 800x600 resolution or higher and High Color (16 bit) mode for the best display results.

Recommended hardware configuration:

• At least Pentium 2+ GHz (or equivalent).
• At least 2 GB of memory.
• At least 200 MB of free disk space.
• VGA controller and display of 800x600 resolution or higher and High Color (16 bit) mode for the best display results.

In the PeopleSoft Pure Internet Architecture (PIA), the web browser renders the user interface. The web browser receives the HTML generated by the application server and displays the graphic representation of the HTML. The CPU speed of the client has a great influence on how fast these HTML pages are rendered. The web browser should be configured to take advantage of the HTTP 1.1 Protocol and should also allow adequate disk space for HTML object caching.

CHAPTER 3
Web Server

3.1 Understanding the Web Server

The web server performs little logic. It simply relays data back and forth between the user workstation and application server. The web server handles encryption and manages the connections between the browsers. It also caches and serves up images. For the PeopleSoft Pure Internet Architecture, most of the logic occurs on an application server—this is where panels are run and HTML is generated. This architecture should yield high performance on the WAN (dialup), because it only sends HTML to the client workstation.

3.2 Web Server Software Requirements

The following are web server software requirements:

- BEA WebLogic Server, Oracle Application Server, or IBM WebShpere Server
- PeopleSoft PIA files

3.3 Web Server Hardware Requirements

The following are web server hardware requirements:

Minimum hardware requirements:

- Single Processor Server with Pentium GHz minimum (or equivalent).
- 2 GB of memory.
- 10 GB of free disk space for PIA files and report repository.
- Network interface card and cabling to connect to network.

Recommended hardware configuration:

- Multi-Processor (2 CPUs) Server with Pentium 2.4+ GHz (or equivalent).
- At least 2 GB of memory.
- At least 20 GB of free disk space for application files and report repository.
- Network interface card and cabling to connect to network.

CHAPTER 4
Database Server

4.1   Understanding the Database Server

The RDBMS environments that Phire supports include:

- Microsoft SQL Server
- Oracle
- DB2/UDB

4.2   Database Server Software Requirements

The following are database server software requirements:

- RDBMS software and all requisite products
- Supported SQL query tool
- Any required network connectivity software

Microsoft SQL Server Software Requirements
- Microsoft SQL Server 2008 (minimum)
- SQL Server ODBC Driver

Oracle Software Requirements
- Oracle 11g (minimum)
- SQL*Plus

DB2/UDB Software Requirements
- DB2 UDB v9.x (minimum)
- DB2 Connect

4.3   Database Server Hardware Requirements

The following are database server hardware requirements:

Minimum hardware requirements:

- Multi-Processor (2 CPUs) Server with Pentium 2 GHz minimum (or equivalent).
- At least 2 GB of RAM.
- Minimum of 20 GB of disk space for a PeopleTools-Only Phire database and sufficient disk space to accommodate:
    - RDBMS software and all requisite products
    - Operating system

- One production version of your database and all log and dump files. This is in addition to any disk space required for any development databases
- Video controller and display.
- Network interface card and cabling to connect to network.

<u>Recommended hardware configuration:</u>

- Multi-Processor (2-4 CPUs) server running Pentium 2.4+ GHz (or equivalent)
- At least 4 GB of RAM.
- At least 40 GB of disk space for the Phire database.
- At least 20 GB of free disk space for software files, RDBMS, OS, and logs.
- Backup device.
- Video controller and display.
- Network interface card and cabling to connect to network.

CHAPTER 5
Process Scheduler (Batch) Server

5.1 Understanding the Process Scheduler Server

For a batch server, Phire supports all of the platforms that are supported as application servers. The term *batch server* is equivalent to the term *Process Scheduler server*. Phire batch processes, such as Application Engine and XMLP Reports are scheduled and invoked by a Process Scheduler server.

Note. Phire only needs one process scheduler. You do not have to have both the PSNT and the PSUNX process schedulers. You can decide which process scheduler to setup for the Phire application.

5.2 Process Scheduler Server Software Requirements

The following are Process Scheduler server software requirements:

- RDBMS connectivity software
- Supported SQL query tool
- PeopleSoft Batch Server files
- Any required network connectivity software

5.3 Process Scheduler Server Hardware Requirements

The following are Process Scheduler server hardware requirements

Minimum hardware requirements:

- Single Processor Server with Pentium 2 GHz minimum (or equivalent).
- At least 2 GB of RAM.
- At least 20 GB of free disk space for the Phire software and report and log files.
- Network interface card and cabling to connect to network.

Recommended hardware configuration:

- Multi-Processor (2 CPUs) Server with Pentium 2.4+ GHz (or equivalent).
- At least 2 GB of RAM.
- At least 40 GB of free disk space for Phire software and report and log files.
- Video controller and display.
- Network interface card and cabling to connect to network.

CHAPTER 6
Application Server

6.1 Understanding the Application Server

The application server serves as an intermediary between the user workstation and the database server. It connects to the Phire database and handles almost all SQL-intensive interaction with the database server required during online transaction processing. The application server interacts with the end user workstation (which only needs a supported browser) via the web server. All application servers require database connectivity to the database server. Before beginning your installation, make sure that you can connect from the application server to the database server using a SQL client tool.

6.2 Application Server Software Requirements

A Windows application server can be used for every RDBMS platform supported by Phire. For installation purposes, Phire recommends that you configure a physical three-tier environment with a Windows application server, although you may choose a logical three-tier configuration if running a Windows database server.

- BEA Tuxedo
- Database connectivity package
- PeopleSoft application server files and code.

6.3 Application Server Hardware Requirements

The following are application server hardware requirements.

Minimum hardware requirements:

- Single Processor Server with Pentium 2 GHz minimum (or equivalent).
- At least 2 GB of RAM.
- At least 20 GB of free disk space for BEA Tuxedo and PeopleSoft application server files.
- Network interface card and cabling to connect to network.

Recommended hardware configuration:

- Multi-Processor (at least 2 CPUs) Server with Pentium 2.4 GHz (or equivalent).
- At least 2 GB of RAM.
- At least 40 GB of free disk space for BEA Tuxedo and PeopleSoft application server files.
- Video controller and display.
- Network interface card and cabling to connect to network.