

# Oracle® Health Sciences Information Manager

Security Guide

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This guide describes important security management options for Oracle Health Sciences Information Manager (HIM).

## 1 Introduction

This guide presents the following security guidelines and recommendations:

- [Configuring Strong Passwords on the Database](#)
- [Restricting Access to Sensitive Files and Directories](#)
- [Using SSL](#)
- [Closing All Unused Open Ports](#)
- [Keeping Telnet Service Disabled for Remote Session](#)
- [Keeping Other Unused Services Disabled](#)

## 2 Configuring Strong Passwords on the Database

Although the importance of passwords is well known, the following basic rule of security management is worth repeating:

*Ensure all your passwords are strong.*

You can strengthen passwords by creating and using password policies for your organization. For guidelines on securing passwords and for additional ways to protect passwords, refer to the *Oracle Database Security Guide* specific to the database release you are using.

You should modify the following passwords to use your policy-compliant strings:

- Passwords for the database default accounts, such as SYS and SYSTEM.
- Database application-specific schema accounts, such as ADT, HRLCORE, and LOG.

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**Note:** Ensure that you do not set a password for the database listener in the listener.ora file. The local operating system authentication will secure the listener administration. The remote listener administration is disabled when the password is not set. This prevents brute force attacks on the listener password.

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## 3 Restricting Access to Sensitive Files and Directories

Oracle recommends limiting the access to the files and directory containing sensitive information. In Linux environment, default files and directories to 740 or 640 permissions as applicable.

Some of the sensitive files are listed below:

- GlassFish:
  - <GlassFish\_home>/domains/<domain\_name>/config/domain.xml
  - <GlassFish\_home>/domains/<domain\_name>/logs

## 4 Using SSL

Oracle recommends using two-way SSL while using GlassFish or WebLogic application servers. HRL and PE applications are standard Java EE application and can utilize an industry standard security infrastructure and framework. There is no configuration required on the applications. The application Server (WebLogic or GlassFish) provides SSL service. For more information about configuring SSL, see the Application Server's documentation.

When SSL or TLS is configured, it is recommended to use TLS\_RSA\_WITH\_AES\_128\_CBC\_SHA cipher instead of SSL\_RSA\_WITH\_DES\_EDE\_CBC\_SHA for TLS authentication.

## 5 Closing All Unused Open Ports

Keep only the minimum number of ports open. You should close ports that are not in use. Configure HRL, PM, and PE servers with only minimum number of required ports.

## 6 Keeping Telnet Service Disabled for Remote Session

By default, Telnet listens on port 23. Telnet, which sends clear-text passwords and user names through a log in, is a security risk to your servers. If the Telnet service is available on any system, it is recommended to disable Telnet in favor of Secure Shell (SSH). Disabling Telnet protects your system security.

## 7 Keeping Other Unused Services Disabled

HRL, PM, and PE servers do not use following protocols, services, or information for its functionality:

- **Identification Protocol (identd):** Identifies the owner of a TCP connection on UNIX.
- **Simple Network Management Protocol (SNMP):** Manages and reports information about different systems.
- **File Transfer Protocol (FTP):** Transfers or copies file from one host to another. FTP is inherently insecure and should be disabled.
- **Network News Transfer Protocol (NNTP):** Apache James 2.3.2 server supports NNTP apart from SMTP and POP3 protocols. NNTP is an Internet application protocol used for transporting Usenet news articles between news servers and for reading and posting articles by end-user client applications.

## 8 Documentation Accessibility

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