



PHINMS 3.3 Release Notes

Public Health Information Network Messaging System (PHINMS)

Version 1.0

**Prepared by:
Centers for Disease Control and Prevention**

Date: October 31, 2023



REVISION HISTORY

Version #	Implementer	Date	Explanation
1.0	Joseph Mai	10-31-2023	Update
1.0	Anu Gattu	11-30-2023	Update
1.0	Jannie Williams	04/10/2024	Review



Contents

1 INTRODUCTION	6
1.1 Objective	6
1.2 Scope	6
1.3 References	6
1.4 Communication with Users	6
2 RELEASE INFORMATION	7
2.1 Compatible Products	7
2.2 Resource Requirements	7
2.3 New Installations	8
2.4 Upgrade from Prior Versions of PHINMS	8
2.5 Re-installing PHINMS	9
3 PHINMS 3.3 NEW FEATURES AND CHANGES	9
3.1 Java Compatibility Expansion	9
3.2 Update Bundled Tomcat Server	9
3.3 Update to Latest Log4j	9
3.4 SQL Server Database Windows Authentication Type	9
3.5 Windows Server 2019 and SQL Server 2019 Compatibility	9
3.6 Console/Interface Links Updated	9
PHINMS KNOWN ISSUES	10
4.1 PHINMS 3.3 Limitations	10
4.2 Additional Information and Recommendations	10



LIST OF TABLES

Table 1. JDBC Drivers 7

ACRONYMS

CA	Certificate Authority
CDC	Centers for Disease Control and Prevention
CPA	Collaboration Protocol Agreement
HSQLDB	HyperXtreme Structured Query Language Database
HTTP	Hyper Text Transfer Protocol
JBDC	Java Database Connectivity
JDK	Java Development Kit
JVM	Java Virtual Memory
ODBC	Open Database Connectivity
PHINMS	Public Health Information Network Messaging System
SQL	Structured Query Language
SMTP	Simple Mail Transport Protocol
SSL	Secure Socket Layer
TransportQ	Transport Queue
URL	Uniform Resource Locator
WAR	Web Archive
XML	Extensible Markup Language

1 INTRODUCTION

1.1 Objective

The Centers for Disease Control and Prevention (CDC) Public Health Information Network Messaging System (PHINMS) Release Notes communicates the changes and enhancements in PHINMS Version 3.3 software for Windows environments. It also documents known problems and workarounds. This document is for users, developers, and IT support staff.

Note: Navigate to <https://www.cdc.gov/phinf/tools/phinms> when this manual references the PHINMS website.

1.2 Scope

This document describes new features and bug fixes implemented with PHINMS Release 3.3 and the supported upgrade path.

1.3 References

Name	Location
Quick How To	Located at https://www.cdc.gov/phinf/tools/phinms/
PHINMS Implementation Guide Version 3.3	Steps to install, upgrade, and configure PHINMS 3.3 can be found in PHINMS 3.3 Implementation Guide document located at PHINMS Installation CDC

1.4 Communication with Users

Send questions, suggestions, and/or comments concerning PHINMS support or documentation to PHINtech@cdc.gov.

2 RELEASE INFORMATION

The PHINMS 3.3 release supports clean installations and/or upgrades from Version 2.8.00 to 3.3. PHINMS 3.3 includes new Java versions compatibility, Log4j updates, Tomcat updates, integrated security authentication for SQL server database, updated console links, and some bug fixes.

2.1 Compatible Products

PHINMS 3.3 has been tested on the following platforms:

- Operating systems (64-bit only):
 - Windows Server 2019.
 - Windows 10.
- Databases:
 - Default Databases: HSQL DB 1.8.0.4
 - Microsoft SQL Server 2019.
- Application Servers:
 - Tomcat 9
- Receiver Side Proxy Servers:
 - IIS 10
- JDBC drivers.

DB SERVER	VERSION	JDBC DRIVER NAME	VERSION	DATE
MS SQL	2019	mssql-jdbc-11.2.1.jre8, mssql-jdbc-11.2.1.jre11, mssql-jdbc-11.2.1.jre17, mssql-jdbc-11.2.1.jre18	11.2.1	09/13/2022

Table 1. JDBC Drivers

Note: Java Database Connectivity (JDBC) drivers listed in this table were successfully tested for connectivity. However, CDC does not support potential defects of JDBC drivers. It is up to PHINMS users to decide which JDBC driver is appropriate to use. This table is provided for reference purposes only.

2.2 Resource Requirements

- Local administrator for Windows

- Minimum disk space: 6 GB
- Minimum memory: 8 GB
- TLS 1.2
- Java Open JDK or Oracle JDK from version 8 to 17.

2.3 New Installations

The Installation Wizard guides the user through the base installation of the PHINMS Sender and/or Receiver. It is the responsibility of the administrator to configure routes and database connections after completing the installation. The following major components are installed with the wizard:

- Tomcat 9.0.84
- PHINMS 3.3 Receiver and Sender components
- PHINMS 3.3 default configuration files and directory structure
- Default database: HSQLDB 1.8.0.4 engine.

When PHINMS software is installed, Tomcat 9 will be installed in the Windows services panel with the display name of “PHINMS Tomcat Instance” and HSQLDB with “PHINMS Database Engine Service.”

When installed as a Windows service, the default startup type is configured as “Automatic.”

The alternative way to start the PHINMS instance is as follows:

- `<Install-dir>\Phinms\bin\ startHSQLDB.bat` to start the PHINMS default database (HSQLDB).

When the Tomcat service is running, the console can be launched by doing either of the following:

- Selecting “PHINMS Console” from the “Program Menu” or
- Double clicking `<installation directory>\bin\phinmsConsole.exe` file.

The PHINMS console is protected by a username and password by default. Contact the PHIN Help Desk by email at phintech@cdc.gov or by calling 1-800-532-9929. Use option 2 for the default console username and password.

2.4 Upgrade from Prior Versions of PHINMS

PHINMS 3.3 supports upgrading from PHINMS versions 2.8.00 or later. End users must provide the previous installation path during upgrade as well as a new path for installing the newer version. Upgrading from versions prior to PHINMS 2.8.00 is not supported; end users must do a new install to take advantage of the fixes and enhancements in PHINMS 3.3.

2.5 Re-installing PHINMS

PHINMS does not support re-installing PHINMS to the same install directory. The administrator must choose new install and a new install path from the wizard.

3 PHINMS 3.3 NEW FEATURES AND CHANGES

The new features included in PHINMS 3.3 are listed in this section.

3.1 Java Compatibility Expansion

PHINMS 3.3 is compatible with more Java versions. Users can now use PHINMS 3.3 with any Java version of their preference. PHINMS 3.3 was tested and confirmed working with any Java version from Java 8 to 17, including Java from Oracle and open-source Java.

Note: PHINMS 3.3 needs to use Java Development Kit (JDK) to work, not Java Runtime Environment (JRE).

3.2 Update Bundled Tomcat Server

The PHINMS application uses Tomcat as a web server engine. This release of PHINMS was updated to Tomcat Version 9.0.84 which currently has no security vulnerabilities.

3.3 Update to latest Log4j

Outdated Log4j 1.xx.x version has been replaced with Log4j 2.17.1.

3.4 SQL Server Database Windows Authentication Type

Windows authentication feature was added in PHINMS 3.3. Now Microsoft SQL Server database users have the option to choose between windows authentication and SQL authentication. With windows authentication, user is authenticated through windows Active Directory (AD). For instructions on setting up PHINMS 3.3 to connect to SQL Server database using windows authentication refer to section 7.1 on PHINMS 3.3 Implementation Guide document.

3.5 Windows Server 2019 and SQL Server 2019 Compatibility

PHINMS 3.3 has been tested and confirmed working with windows server 2019 and SQL server 2019.

3.6 Console/Interface Links Updated

On PHINMS console broken/nonworking Menu buttons were removed and replaced with working links.

PHINMS KNOWN ISSUES

The following are either known product bugs that are not yet addressed in this release or limitations of the product that will be considered for resolution in future releases.

4.1 PHINMS 3.3 Limitations

- While users select database type for TransportQ and WorkerQ, one of the drop-down list options indicates “Access.” The MS Access database is no longer supported in PHINMS. Please choose the other database types from the list. This option will be removed in a future release.
- When the auto-delete functionality is first turned on to delete older data, PHINMS waits until the start of the next cycle before any actual deletion occurs. This function is not a real-time deletion capability.
- Chunking (sending payloads larger than approximately 10 MB) only works with direct-send and does not work with route not read (RnR).

4.2 Additional Information and Recommendations

- The receiver does not append the timestamp in the file name for the zero payload messages.
- When chunked messages are received, some chunks may have a zero-size payload. This result is not a concern, as the receiver assembles all chunked messages after it receives the last chunked message.
- As with prior releases, PHINMS 3.3 does not have MS SQL Server, Oracle, and MySQL JDBC drivers (JDBC jar files) bundled with the release. End users using any of those databases as a transport queue or worker queue must download those drivers from their vendors and import them using the PHINMS Console.
- Before starting the process of upgrading from a prior PHINMS release, users must first stop any running PHINMS application before it is upgraded. If existing PHINMS software is running as a Windows Service, end users should stop the service; otherwise, stop the PHINMS software from the command window if it is running in command line mode.

Contact the PHINMS Support Team when a bug or limitation is found. Navigate to <https://www.cdc.gov/phin/tools/phinms/> and click on the Contact PHINMS email link or contact the CDC PHIN Helpdesk at PHINtech@cdc.gov.