

Informatica[®] Test Data Management 10.5.2

Upgrade Guide

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Preface

Follow the instructions in the Informatica *Test Data Management Upgrade Guide* to upgrade Test Data Management. The guide also includes information on prerequisite tasks and post upgrade tasks that you need to perform to complete the upgrade. Unless otherwise noted, the upgrade path includes hotfixes and service packs.

Informatica Resources

Informatica provides you with a range of product resources through the Informatica Network and other online portals. Use the resources to get the most from your Informatica products and solutions and to learn from other Informatica users and subject matter experts.

Informatica Network

The Informatica Network is the gateway to many resources, including the Informatica Knowledge Base and Informatica Global Customer Support. To enter the Informatica Network, visit https://network.informatica.com.

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- · View product availability information.
- Create and review your support cases.
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Use the Informatica Knowledge Base to find product resources such as how-to articles, best practices, video tutorials, and answers to frequently asked questions.

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If you have questions, comments, or ideas about the product documentation, contact the Informatica Documentation team at infa_documentation@informatica.com.

Informatica Product Availability Matrices

Product Availability Matrices (PAMs) indicate the versions of the operating systems, databases, and types of data sources and targets that a product release supports. You can browse the Informatica PAMs at https://network.informatica.com/community/informatica-network/product-availability-matrices.

Informatica Velocity

Informatica Velocity is a collection of tips and best practices developed by Informatica Professional Services and based on real-world experiences from hundreds of data management projects. Informatica Velocity represents the collective knowledge of Informatica consultants who work with organizations around the world to plan, develop, deploy, and maintain successful data management solutions.

You can find Informatica Velocity resources at <u>http://velocity.informatica.com</u>. If you have questions, comments, or ideas about Informatica Velocity, contact Informatica Professional Services at <u>ips@informatica.com</u>.

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You can contact a Global Support Center by telephone or through the Informatica Network.

To find your local Informatica Global Customer Support telephone number, visit the Informatica website at the following link:

https://www.informatica.com/services-and-training/customer-success-services/contact-us.html.

To find online support resources on the Informatica Network, visit <u>https://network.informatica.com</u> and select the eSupport option.

CHAPTER 1

Test Data Management Upgrade

This chapter includes the following topics:

- Upgrade Overview, 8
- Upgrade Paths, 8
- Upgrade Options, 9

Upgrade Overview

You can apply the 10.5.2 hotfix on versions 10.5 and 10.5.1. To upgrade from earlier versions, you must first upgrade to 10.5 and then apply the hotfix.

Run the Informatica service installer to upgrade Test Data Management and services within an Informatica domain. After you run the installer, upgrade the required services and complete post upgrade tasks to complete the upgrade.

Upgrade Paths

The upgrade paths that you take depend on the products that you upgrade. If you are on a version that does not support a direct upgrade, you must first upgrade to a supported version.

The following table lists the upgrade paths for each product that the installer supports.

Product	Versions
PowerCenter	 You can apply the 10.5.2 hotfix to version 10.5 including any service pack or cumulative patch. You can upgrade to version 10.5.2 from the following previous versions: 10.1.1 including any hotfix, service pack, or cumulative patch 10.2 including any hotfix, service pack, or cumulative patch 10.4 including any hotfix, service pack, or cumulative patch 10.4.1 including any hotfix, service pack, or cumulative patch
Informatica Data Quality	 You can upgrade to version 10.5.2 from the following previous versions: 10.1.1 including any hotfix, service pack, or cumulative patch 10.2 including any hotfix, service pack, or cumulative patch 10.4 including any hotfix, service pack, or cumulative patch 10.4.1 including any hotfix, service pack, or cumulative patch

Product	Versions
Data Engineering Integration Data Engineering Quality	 You can apply the 10.5.2 hotfix to version 10.5 including any service pack or cumulative patch. You can upgrade to version 10.5.2 from the following previous versions: 10.1.1 including any hotfix, service pack, or cumulative patch 10.2 including any hotfix, service pack, or cumulative patch
	 10.2.1 including any hotfix, service pack, or cumulative patch 10.2.2 including any hotfix, service pack, or cumulative patch 10.4 including any hotfix, service pack, or cumulative patch 10.4.1 including any hotfix, service pack, or cumulative patch
	Important: If Data Engineering is in the same domain as any other product supported by the Informatica installer, verify that all products are upgraded to the same supported upgrade version before you upgrade to 10.5.2.
Data Engineering Streaming	You can apply the 10.5.2 hotfix to version 10.5 including any service pack or cumulative patch. You can upgrade to version 10.5.2 from the following previous versions:
	 10.2.2 including any hotfix, service pack, or cumulative patch 10.4 including any hotfix, service pack, or cumulative patch 10.4.1 including any hotfix, service pack, or cumulative patch
Data Privacy Management	You can apply the 10.5.2 hotfix to version 10.5 or 10.5.1 including any service pack or cumulative patch. You can upgrade to version 10.5.2 from version 10.4.1.x including any cumulative patch.
	Important: If Data Engineering, Enterprise Data Catalog, and Data Privacy Management are in the same domain of a version earlier than 10.4.1.x, upgrade them all to version 10.4.1.x before you upgrade to 10.5.2.
Enterprise Data Catalog	You can apply the 10.5.2 hotfix to version 10.5 or version 10.5.1 including any service pack or cumulative patch.
	You can upgrade to version 10.5.2 from the following previous versions:
	 10.4 including any hotfix, service pack, or cumulative patch 10.4.1 including any hotfix, service pack, or cumulative patch
	Important: If Enterprise Data Catalog and Data Engineering are in the same domain of a version earlier than 10.4, upgrade them both to version 10.4 or 10.4.1 before you upgrade to 10.5.2.
Enterprise Data Preparation	You can apply the 10.5.2 hotfix to version 10.5 including any service pack or cumulative patch. You can upgrade to version 10.5.2 from the following previous versions:
	 10.4 including any hotfix, service pack, or cumulative patch 10.4.1 including any hotfix, service pack, or cumulative patch
	Important: If Data Engineering, Enterprise Data Catalog, and Enterprise Data Preparation are in the same domain of a version earlier than 10.4, upgrade them all to version 10.4 or 10.4.1 before you upgrade to 10.5.2.
Test Data Management	You can apply the 10.5.2 hotfix to upgrade from version 10.5 or 10.5.1 including any service pack or cumulative patch.

Upgrade Options

You can run the Informatica 10.5.2 installer to apply the hotfix on Test Data Management versions 10.5 and 10.5.1.

If you are on version 10.5 or 10.5.1, see <u>"Hotfix Installation and Rollback" on page 11</u> for the steps to apply the hotfix.

The following table describes the upgrade path from previous versions:

Test Data Management Version	Upgrade Path
- 10.4.1 - 10.4 - 10.2.0 Hotfix 2	Upgrade to 10.5 and then apply the 10.5.2 hotfix. See <u>Chapter 3, "Test Data Management</u> <u>Upgrade to Version 10.5" on page 21</u> for information about how to upgrade to version 10.5. Apply the 10.5.2 hotfix after you perform all post upgrade tasks for 10.5.
All earlier versions.	 Upgrade to one of the following versions and then upgrade to 10.5: 10.4.1 10.4 10.2.0 Hotfix 2 Apply the 10.5.2 hotfix after you perform all post upgrade tasks for 10.5. Note: You must perform all post upgrade tasks for each version that you upgrade to. See the <i>Test Data Management Upgrade Guide</i> of the corresponding version for instructions about how to upgrade to the version.

CHAPTER 2

Hotfix Installation and Rollback

This chapter includes the following topics:

- Hotfix Installation and Rollback, 11
- After You Apply the Hotfix, 19
- After You Roll Back the Hotfix, 20

Hotfix Installation and Rollback

When you apply the hotfix, the installer backs up existing directories, applies the new version of the product, and restores or updates required configuration and run-time files.

Informatica provide installers to apply hotfixes to the Informatica services and clients.

To apply or roll back the Informatica hotfix on PowerCenter or Data Engineering Integration installer, perform the following steps:

- 1. Complete the preliminary tasks. Before you apply or rollback the hotfix, ensure that you shut down the domain. For a multi-node configuration, you also need to shut down all the nodes.
- 2. Apply or roll back the hotfix to the Informatica services in graphical, console, or silent mode.
- 3. Complete the final tasks for the Informatica services. After you install the server components, start the domain on the gateway node.
- Apply the hotfix to the Informatica clients in graphical or silent mode. If you are applying the hotfix to Informatica Developer, verify that the Informatica client hotfix version matches the Informatica services hotfix version.

Note: If the Informatica client hotfix version does not match the Informatica services hotfix version, Informatica Developer cannot connect to the domain.

When you roll back a hotfix, the installer restores Informatica to the previously installed version.

Before You Apply or Roll Back the HotFix

Complete the pre-upgrade tasks before you apply or roll back a hotfix.

- 1. Download the hotfix package for your platform.
- 2. Unzip or untar the contents of the hotfix package.

Note: On Windows, the length of the installation path, including the .zip file name, must be 60 characters or fewer. On UNIX, use the native tar or GNU tar command to extract the installer files. The user that runs

the installer must have read and write permissions on the directory that contains the installer files and execute permissions on install.sh.

- Stop all processes that access the installation directory and subdirectories, including command prompts and command line programs.
- 4. Close the Informatica clients on all machines where you want to apply or roll back the hotfix.
- 5. Close the Informatica directory and the subdirectories.
- 6. If you are applying a hotfix, back up the repository and warehouse files. Ensure that you back up the required repositories from the Administrator tool. These backup files are required if you roll back the hotfix. Back up the following databases and files in your environment:
 - PowerCenter repository
 - Model repository
 - Metadata Manager imm.properties file
 - Metadata Manager warehouse
 - Data Transformation ServiceDB directory
- 7. Stop the Informatica services on all nodes in the domain.
- 8. If you are applying a hotfix and the machine uses HTTPS to connect to Informatica Administrator, verify that the keystore file is in the default location and that it uses the default file name. The default location for the keystore file is <Informatica installation directory>/tomcat/conf. The default file name for the keystore file is Default.keystore.

Applying or Rolling Back the HotFix in Graphical Mode

When you apply the hotfix in graphical mode, a console window opens and runs in the background. If you close this window, the installation stops.

- 1. Log in to the machine with a system user account. The user account must be the same account used to install the previous version of Informatica services.
- 2. Close all other applications.
- 3. To begin the installation on Windows, run install.bat as administrator from the root directory where you unzipped or untarred the hotfix package. To run the file as administrator, right-click install.bat and select Run as administrator.
- On the Informatica 10.5.2 page, select Apply hotfix to Informatica 10.5.1 or roll back the hotfix., and then click Start.

The Installation Type page appears.

- 5. Choose to apply or roll back the hotfix.
 - To apply a hotfix, select Apply the hotfix.
 - To roll back a hotfix, select Roll back the hotfix.
- 6. Read the terms and conditions of Informatica product usage toolkit and select **I agree to the terms and conditions**, and then click **Next**.

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<u>https://www.informatica.com/in/privacy-policy.html</u>. You may disable usage collection in Administrator tool.

The Installation Prerequisites page appears.

- Verify that all requirements are met before you apply or roll back the hotfix, and then click Next. The Installation Directory page appears.
- 8. Enter the absolute path for the directory in which the current version of the Informatica services is installed, specify the installation environment, and then click **Next**.

The Pre-Installation Summary page appears.

9. Review the installation information, and then click Install to apply or roll back the hotfix.

If you are applying a hotfix, the installer copies the Informatica files to the installation directory. If you are rolling back a hotfix, the installer removes the hotfix and restores Informatica to the previous version.

10. Complete the post-installation tasks. Verify that the hotfix or rollback completed successfully by reviewing the log file or the **Post-Installation Summary** page.

Applying or Rolling Back the HotFix in Console Mode

When you apply the hotfix in console mode, the words Help, Quit, and Back are reserved words. Do not use them as input text.

- 1. Log in to the machine with a system user account. The user account must be the same account used to install the previous version of Informatica services or client.
- 2. Close all other applications.
- 3. On a shell command line, run the install.sh file located in the root directory.

The installer displays a message to verify that the locale environment variables are set.

- 4. Verify that the environment variables are set.
 - If the environment variables are not set, enter N to exit the installer and set them as required.
 - If the environment variables are set, enter Y to continue.
- 5. Enter the option to apply the hotfix to Informatica 10.5 or 10.5.1 or roll back the hotfix.
- 6. Choose to apply or roll back the hotfix.
 - Enter 1 to apply the hotfix.
 - Enter 2 to roll back the hotfix.
- 7. Read the terms and conditions for Informatica installation and the product usage toolkit and select I agree to the terms and conditions.

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- Press 1 to quit.
- Press 2 to continue.
- 8. Verify that all installation requirements are met before you continue to apply or roll back the hotfix.
- 9. Press Enter.
- 10. Enter the absolute path for the directory in which the current version of the Informatica services is installed or press Enter to use the default directory.

The directory names in the path must not contain spaces or the following special characters: $@|* $ #! % (){}[],;'$

- 11. If you apply the hotfix, specify the environment type associated with the Informatica services installation.
 - Press 1 to set Sandbox environment for a basic environment used for proof of concept with minimal users.
 - Press 2 to set Development environment for the design environment.
 - Press **3** to set Test environment for high volume processing that is closest to a production environment.
 - Press **4** to set Production environment for high volume processing with high levels of concurrency meant for end users. Advanced production environments are typically multi-node setups.

Default is 1 for Sandbox.

- 12. Press Enter.
- 13. Review the installation information, and press Enter to apply or roll back the hotfix.

If you are applying a hotfix, the installer copies the Informatica files to the installation directory. If you are rolling back a hotfix, the installer removes the hotfix and restores Informatica to the previous version.

14. Complete the post-installation tasks. Verify that the hotfix or rollback completed successfully by reviewing the log file or the **Post-Installation Summary** page.

Applying or Rolling Back the HotFix in Silent Mode

To apply the hotfix in the silent mode, create the SilentInput.properties file and then run the installer with the file.

Informatica provides a sample properties file, called SilentInput_hotFix.properties, that includes the parameters that are required by the installer.

The properties file is the same for both the Informatica services hotfix and Informatica client hotfix.

- 1. Go to the root of the directory that contains the installation files.
- 2. Find the SilentInput_HotFix.properties file.
- 3. Back up the file before you modify it.
- 4. Use a text editor to open the file and modify the values. The following table describes the installation properties that you can modify:

Property Name	Description
INSTALL_TYPE	Indicates whether to apply the hotfix or roll back the hotfix. If the value is 0, the installer applies the hotfix to the current Informatica installation. If the value is 1, the installer rolls back the current hotfix.
USER_INSTALL_DIR	Directory for the Informatica installation on which to apply or roll back the hotfix.
	To apply the hotfix to the Informatica services, enter the absolute path for the directory in which the current version of the Informatica services is installed.
	To roll back the hotfix, enter the absolute path for the directory in which the current version of the Informatica services or clients is installed.

Property Name	Description
ENABLE_USAGE_COLLECTION	Enables the software to automatically transmit to Informatica in the USA information about the computing and network environment in which the Software is deployed and the data usage and system statistics of the deployment. This transmission is deemed part of the Services under the Informatica privacy policy and Informatica will use and otherwise process this information in accordance with the Informatica privacy policy available at https://www.informatica.com/in/privacy-policy.html . You may disable usage collection in Administrator tool. For more information about how to disable sending usage statistics, see the <i>Informatica Administrator Guide</i> . You must set the value to 1 to apply the hotfix.
INSTALLATION_ENVIRONMENT	 If you apply the hotfix, specify the environment type associated with the Informatica services installation. Press 1 to set Sandbox environment for a basic environment used for proof of concept with minimal users. Press 2 to set Development environment for the design environment. Press 3 to set Test environment for high volume processing that is closest to a production environment. Press 4 to set Production environment for high volume processing with high levels of concurrency meant for end users. Advanced production environments are typically multi-node setups. Default is 1 for Sandbox.

- 5. Save the properties file with the name SilentInput.properties.
- 6. Open a command window.
- 7. Go to root of the server or client installer directory.
- 8. Verify that the directory contains the SilentInput.properties file that you edited and saved.
- 9. Begin the installation from Windows, UNIX, or Linux.
 - To apply or roll back the hotfix on Windows, run the silentInstallHotFix.bat as administrator. To run the file as administrator, right-click the file and select **Run as administrator**.
 - To apply or roll back the hotfix on UNIX or Linux, double-click the silentInstallHotFix.sh.

If you apply a hotfix, the installer copies the Informatica files to the installation directory. If you roll back a hotfix, the installer removes the last hotfix and restores the previous version of Informatica.

10. Complete the post-installation tasks. Verify that the hotfix or rollback completed successfully by reviewing the log file or the **Post-Installation Summary** page.

Applying or Rolling Back the HotFix Client in Graphical Mode

When you run the installer in graphical mode, a console window opens and runs in the background. If you close this window, the installation stops.

- 1. Log in to the machine with a system user account. The user account must be the same account used to install the previous version of Informatica services.
- 2. Close all other applications.
- 3. To begin the installation on Windows, run install.bat from the root directory where you unzipped or untarred the hotfix installation package.
- 4. On the Informatica 10.5.2 page, select **Apply hotfix to Informatica 10.5 or roll back the hotfix.**, and then click **Start**.

The Installation Type page appears.

- 5. Choose to apply the hotfix or roll back the installation.
 - To apply a hotfix, select Apply the hotfix.
 - To roll back a hotfix, select Roll back the hotfix.
- 6. Read the terms and conditions of Informatica product usage toolkit and select **I agree to the terms and conditions**, and then click **Next**.

Subject to your opt-out rights described below, the software will automatically transmit to Informatica in the USA information about the computing and network environment in which the Software is deployed and the data usage and system statistics of the deployment. This transmission is deemed part of the Services under the Informatica privacy policy and Informatica will use and otherwise process this information in accordance with the Informatica privacy policy available at https://www.informatica.com/in/privacy-policy.html. You may disable usage collection in Administrator tool.

The Installation Prerequisites page appears.

7. Verify that all requirements are met before you continue the hotfix or rollback, and then click Next.

The Installation Directory page appears.

8. Enter the absolute path for the directory in which the current version of the Informatica services is installed, specify the installation environment, and then click **Next**.

The Pre-Installation Summary page appears.

9. Review the installation information, and then click Install to apply or roll back the hotfix.

If you are applying a hotfix, the installer copies the Informatica files to the installation directory. If you are rolling back a hotfix, the installer removes the last hotfix and restores Informatica to the previous version.

10. Complete the post-installation tasks. Verify that the hotfix or rollback completed successfully by reviewing the log file or the **Post-Installation Summary** page.

Applying or Rolling Back the HotFix Client in Silent Mode

To apply the hotfix in silent mode, create the SilentInput.properties file and then run the installer with the file.

Informatica provides a sample properties file, called SilentInput_hotFix.properties, that includes the parameters that are required by the installer. The following example shows the contents of the file:

- 1. Go to the root of the directory that contains the installation files.
- 2. Locate the SilentInput_HotFix.properties file.
- 3. Back up the file before you modify it.

4. Use a text editor to open the file and modify the values. The following table describes the installation properties that you can modify:

Property Name	Description
INSTALL_TYPE	Indicates whether to apply the hotfix or roll back the hotfix. If the value is 0, the installer applies the hotfix to the current Informatica client installation. If the value is 1, the installer rolls back the current hotfix.
USER_INSTALL_DIR	Directory for the Informatica installation on which to apply or roll back the hotfix. To apply the hotfix to the Informatica clients, enter the absolute path for the directory in which the current version of the Informatica clients is installed.
	To roll back the hotfix, enter the absolute path for the directory in which the current version of the Informatica clients is installed.

- 5. Save the properties file with the name SilentInput.properties.
- 6. Go to root of the client installer directory.
- 7. Verify that the directory contains the SilentInput.properties file that you edited and saved.
- 8. To apply or roll back the hotfix on Windows, double-click the silentInstallHotFix.bat.

If you apply a hotfix, the installer copies the Informatica files to the installation directory. If you roll back a hotfix, the installer removes the last hotfix and restores the previous version of Informatica.

 Complete the post-installation tasks. Verify that the hotfix or rollback completed successfully by reviewing the log file or the **Post-Installation Summary** page.

Sample Silent Input Properties (Server)

The following example shows the contents of the SilentInput.properties file when you apply or roll back the hotfix in silent mode.

***** # Informatica Installer Build Details # Copyright (c) 1993-2021 Informatica LLC # This software contains confidential and proprietary # information of Informatica LLC. # All Rights Reserved. **** # Use the following guidelines when editing this file # * Use this file to install without user interaction. # * After you create the properties file, save the file with the name SilentInput.properties # * Any error condition that leads to failure, such as an invalid # installation directory, generates a log file in the user home directory. # For example: c:\silentErrorLog<time_stamp>.log **** # Set ENABLE USAGE COLLECTION to 1 to accept the product usage toolkit end user license agreement. # You must set the value as 1 to install the Informatica platform. # The product usage toolkit end user license agreement is available at: http:// www.informatica.com/us/eula/en-support-eula.aspx. # As further described in the EULA, your use of the Informatica platform will enable the product usage toolkit

to collect certain product usage and failure information. You may disable this feature at any time.

For more information on how to disable this feature refer the Informatica Administrator Guide.

```
ENABLE USAGE COLLECTION=0
```

*INSTALL_TYPE - Set this value to '0' to apply the hotfix. Set this value to '1' to roll back the hotfix.

INSTALL TYPE=0

```
# * The USER_INSTALL_DIR variable must point to a valid directory with write
# permissions enabled.
```

```
USER INSTALL DIR=c:\Informatica\10.5
```

```
#The INSTALLATION_ENVIRONMENT property represents the installation environment
# Set the property to one of the following installation environment types: Sandbox,
Development, Test, or Production. Values are case-sensitive.
# Set to Sandbox for a basic environment used for proof of concept with minimal
users.
# Set to Development for the design environment.
# Set to Test for high volume processing that is closest to a production environment.
# Set to Production for high volume processing with high levels of concurrency meant for
end users. Advanced production environments are typically multi-node setups.
```

INSTALLATION ENVIRONMENT=

Sample Silent Input Properties (Client)

The following example shows the contents of the SilentInput.properties file when you apply or roll back the hotfix client in silent mode.

```
****
# Informatica Installer Build Details
# Copyright (c) 1993-2021 Informatica LLC
# This software contains confidential and proprietary
# information of Informatica LLC.
# All Rights Reserved.
*****
# Use the following guidelines when editing this file
# * Use this file to install without user interaction.
# * After you create the properties file, save the file with the name
SilentInput.properties
# * Any error condition that leads to failure, such as an invalid
# installation directory, generates a log file in the user home directory.
# For example: c:\silentErrorLog<time stamp>.log
*****
#######
## *INSTALL TYPE - Set this value to '0' to apply the hotfix. Set this value to '1' to
roll back the hotfix.
INSTALL TYPE=0
# * The USER INSTALL DIR variable must point to a valid directory with write
    permissions enabled.
#
USER INSTALL DIR=c:\Informatica\10.5
#######
# After you create the properties file, save the file with the name
SilentInput.properties and
```

% = run the silent installer to perform the Informatica client installation. # # # # # #

After You Apply the Hotfix

After you apply the hotfix, you must complete the final tasks for the 10.5.1 product components.

Complete the Configuration for Upgrade or Apply Hotfix

If you edit odbc.ini, odbcinst.ini, sapnwrfc.ini, or infaservice.sh files, manually merge the changes from the backup files into the latest installed files. Check with your administrator for any customization to the *.ini files before you applied a hotfix or an upgrade. For instance, if an administrator added some variables or java options to the infaservice.sh script before you applied a hotfix or upgrade, manually merge the changes to the latest install file paths.

Manually merge the latest configuration changes into the following install file paths after applying hotfix or upgrade:

- \$INFA_HOME/ODBC7.1/odbc.ini
- \$INFA_HOME /ODBC7.1/odbcinst.ini
- \$INFA_HOME/server/bin/sapnwrfc.ini
- \$INFA_HOME/tomcat/bin/infaservice.sh

Test Data Management Tasks

To complete the hotfix application, you must perform some Test Data Management tasks in addition to the tasks for the other product components.

Perform the following tasks for Test Data Management:

- 1. Log in to the Administrator tool.
- 2. If you use a test data warehouse, select the Test Data Warehouse Service in the **Domain Navigator** panel and upgrade the service content and then recycle the service.
- Select the Test Data Manager Service in the Domain Navigator panel and upgrade the service content. Recycle the service and then enable the service.
- 4. If you use format preserving encryption, you must update the required configuration file and environment variable. See <u>"Configure Format Preserving Encryption Masking " on page 25</u> for information. See <u>"Configure Format Preserving Encryption Masking in a Hadoop Environment" on page 26</u> for configuration information for Hadoop plans.

After You Roll Back the Hotfix

After you roll back the hotfix, you must perform some manual tasks to complete the roll back.

When you apply the hotfix, the Test Data Management and test data warehouse repository version tables create an entry for the version. The roll back does not delete the version entry. You must manually delete the entry for the version.

 Open the Test Data Management repository database in the database client and run a query to search for data in the ILM_VERSION table.

For example: Select * from ILM_VERSION

- 2. Delete the entry for the hotfix version.
- 3. Restart the Test Data Manager Service.
- If you have a test data warehouse, open the test data warehouse repository database in the database client and run a query to search for data in the TDW_VERSION table.
 For example: Select * from TDW_VERSION
- 5. Delete the entry for the hotfix version.
- 6. Restart the Test Data Warehouse Service.

CHAPTER 3

Test Data Management Upgrade to Version 10.5

This chapter includes the following topics:

- Overview, 21
- Back Up the Test Data Management Repository, 21
- Upgrade the Informatica Domain, 22
- After You Upgrade, 22

Overview

You can upgrade to Test Data Management 10.5 from versions 10.2.0 Hotfix 2, 10.4.0, and 10.4.1.

Perform the following high-level tasks to complete the Test Data Managament upgrade:

- 1. Back up the repository to prepare for the Test Data Management upgrade.
- 2. Upgrade the Informatica domain and products that you require to work with Test Data Management.
- 3. Perform Test Data Management post upgrade tasks.

If you are on a different Test Data Management version, you must first upgrade to 10.2.0 Hotfix 2, 10.4.0, or 10.4.1 before you can upgrade to 10.5.

See the Test Data Management Upgrade Guide of the corresponding version for instructions about how to upgrade to the version.

Back Up the Test Data Management Repository

Back up the Test Data Management repository to ensure that you can revert to the previous version of the repository if you encounter problems with the upgrade. Use the backup utility provided by the database that contains the repository.

Upgrade the Informatica Domain

Upgrade the Informatica domain, services, and clients required to work with Test Data Management.

When you run the installer to upgrade Informatica services, the installer upgrades the Test Data Management binaries. The binaries are installed with both traditional and Data Engineering products.

See the Informatica services upgrade documentation for information about how to upgrade Informatica services.

Perform all pre-upgrade, upgrade, and post upgrade tasks for Informatica services. Upgrade prerequisites and steps might differ based on how you plan to use Test Data Management.

Refer to the appropriate document to ensure you upgrade the domain as required:

- If you use Test Data Management to run mappings only with PowerCenter, see the Informatica Upgrade for PowerCenter documentation.
- If you use Test Data Management to run mappings with PowerCenter and Data Engineering, see the upgrade documentation for Data Engineering.

After you perform the required domain post upgrade tasks, complete the post upgrade tasks for Test Data Management included in this document.

After You Upgrade

After you complete domain upgrade and post upgrade tasks, you must complete upgrade configuration tasks specific to Test Data Management.

Upgrade the Application Services

Upgrade the services that Test Data Manager requires.

As part of the domain post upgrade steps, you must have upgraded the following services before you perform this task:

- PowerCenter Repository Service
- Model Repository Service
- Data Integration Service
- 1. Log in to Informatica Administrator and click the Services and Nodes tab.
- Select the PowerCenter Repository Service in the Domain Navigator panel and on the Repository Properties tab, change the operating mode to Normal.
- Select the PowerCenter Integration Service in the Domain Navigator panel and perform the following tasks:
 - a. Click the Processes tab.
 - b. Click Edit on the General Properties tab.
 - c. In the Edit General Properties window, update the \$PMRootDir path to the latest path.
 - d. Click OK.
 - e. Recycle the service.

- 4. If you use a test data warehouse, select the Test Data Warehouse Service in the **Domain Navigator** panel and perform the following tasks:
 - a. Click Actions > Upgrade Contents to upgrade the content.

The content upgrade updates the table structures and schema of the test data warehouse repository.

- b. Recycle the service.
- 5. Select the Test Data Manager Service in the **Domain Navigator** panel and perform the following tasks:
 - a. Click **Actions** > **Upgrade Contents** to upgrade the content. The content upgrade updates the schema and table structures of the Test Data Management repository.

If you delete the Test Data Manager Service before you upgrade and create the service with a different name after you upgrade, you must enter the previous service name.

- b. Click the Processes tab.
- c. Click Edit on the Execution Options tab.
- d. Update the path to the Informatica installation directory in the **Hadoop Distribution Directory** property and click **OK**.

You cannot test the connection if you do not update the property.

- e. Recycle the service.
- f. Enable the service.

Run the Upgrade Commands for Workflows

Run the following commands to run workflows created before upgrade without generating the workflows again.

Ensure that you stop the domain and set environment variables before you run the upgrade commands.

 Update the following properties in the <Informatica installation directory>/TDM/utilities/ ilmcli/conf configuration file and save the changes:

HTTP Mode

```
user=<Test Data Management user name>
password=<Password>
securityDomain=<Type of security domain>
isUserPasswordEncrypted=<Specify whether the password is encrypted with true or
false>
TDMHostName=<host name of the machine where Test Data Management is installed>
TDMPort=<Test Data Management port number>
isHTTPS=<Specify whether HTTPS is enabled with true or false>
```

HTTPS Mode

```
user=<Test Data Management user name>
password=<Password>
securityDomain=<Type of security domain>
isUserPasswordEncrypted=<Specify whether the password is encrypted with true or
false>
TDMHostName=<host name of the machine where Test Data Management is installed>
TDMPort=<Test Data Management port number>
isHTTPS=<Specify whether HTTPS is enabled with true or false>
javax.net.ssl.trustStore=<enter the complete path to the keystore file>
javax.net.ssl.trustStorePassword=<password of the keystore file>
```

 Browse to the following location: <Informatica installation directory>/TDM/utilities/ ilmcli/bin

3. Run the following commands:

```
sh ilmcmd -uec -ut upgrade -ct tdmcache
```

```
sh ilmcmd -uec -ut upgrade -ct <PowerCenter repository user name> -rdl "<JDBC connection
string>" -rdu <PowerCenter repository user name> -rdp <password> -rdt <database type>
```

You can now run workflows that you generated before upgrade.

Update the Cache File Location in Test Data Manager

If you configured the location of the cache file directory in the existing Test Data Management setup, you must update the location after you upgrade.

- 1. Log in to Test Data Manager as an Administrator.
- 2. Open the Administrator view and click Actions > Edit > Workflow Generation.
- 3. Update the location in the Cache Location field.

On a multinode setup you must:

- Update the cache file directory on all Test Data Management nodes.
- Update the mount or mlink for the cache file directory on all Test Data Management nodes.
- 4. Click OK.

Copy JSON and XML Files

The upgrade does not copy the ResetObject.json and XML files from the TDM/utilities/ilmcli/Bin folder and the TDM/utilities/ilmcli/Conf folder.

If your setup contains the files in the default location, you can copy the files from the TDM folder that is backed up when you upgrade. Copy the files to the same location in the current TDM folder.

If you store the files outside the ${\tt TDM}$ folder, you do not need to copy the files.

Configure the PowerCenter Integration Service for Kerberos-Enabled Hadoop HDFS Connections

If you use a Hadoop cluster with Kerberos authentication, you must configure the PowerCenter Integration Service before you can create and use a Hadoop HDFS connection in Test Data Manager.

Ensure that the KRB5_CONFIG environment variable contains the krb5.conf file location and that the krb5.conf file contains the correct entries.

- Copy the krb5.conf file to the following location: <Informatica installation directory>/TDM/ datadirect
- Create a directory in the Informatica installation directory. For example: <Informatica installation directory>/hadoophdfs/conf/

Ensure that the PowerCenter Integration Service is running so that the Informatica administrator user has read/write access to the directory.

- 3. Copy the following files from the Hadoop cluster to the directory that you created:
 - /etc/hadoop/conf/core-site.xml
 - /etc/hadoop/conf/mapred-site.xml

- /etc/hadoop/conf/hdfs-site.xml
- /etc/hive/conf/hive-site.xml
- Ensure that the Informatica administrator user exists on all Hadoop cluster nodes and has the same UID. To create the Kerberos ticket cache file, run the kinit command on all nodes.
- 5. To create the Kerberos ticket cache file, run the kinit command on the Informatica node where the PowerCenter Integration Service is created.

The command creates the ticket cache file with the following name format:

/tmp/krb5cc_<UID>

Ensure that you have read permission on the ticket cache file.

Use the kinit command to verify, validate, and renew the tickets.

6. Edit the core-site.xml file in the directory and add the following parameters:

```
<property>
<name>hadoop.security.kerberos.ticket.cache.path</name>
<value>/tmp/REPLACE_WITH_CACHE_FILENAME</value>
<description>Path to the Kerberos ticket cache.</description>
</property>
```

- 7. Log in to the Administrator tool, select the PowerCenter Integration Service, and click the Processes tab.
- 8. Click **Edit** on the **Environment Variables** tab. In the CLASSPATH environment variable, add the directory that you created in step 1.
- 9. Restart the PowerCenter Integration Service.

Update Cluster Configuration Information

If you created Hadoop, Hive, or HDFS connections in the previous version, you must update the connection information.

Edit the connection properties and select the required cluster configuration from the list of cluster configurations.

You must re-import the cluster configuration in Informatica Administrator before you can update the connections.

Configure Format Preserving Encryption Masking

Before you can use the format preserving encryption masking type in a plan, you must configure Test Data Management.

- 1. Create a tokens folder in any location on the machine where Informatica is installed.
- $\mbox{ 2. Browse to the <Informatica installation directory>\TDM\configuration directory. } \label{eq:linear}$
- 3. Open the softhsm2.conf file.
- 4. Set the directories.tokendir property to the tokens folder that you create in step 1 and save the change.
- 5. Set the SOFTHSM2_CONF environment variable to the <Informatica installation directory>\TDM \configuration\softhsm2.conf directory.
- Set the INFA_KEY_LOCATION environment variable to the <Informatica installation directory>\isp \config\keys directory.
- 7. Restart the Informatica domain.

Configure Format Preserving Encryption Masking in a Hadoop Environment

Before you can use the format preserving encryption masking type in a Hadoop plan, you must configure Test Data Management.

- 1. Create a folder to store tokens on the Hadoop cluster. For example, create a tokens folder.
- $2. \quad Browse to the \verb"softhsm2.conf" file on the < Informatica installation directory > TDM \configuration \\$
- 3. Copy the softhsm2.conf file to the Hadoop cluster.
- 4. Open the softhsm2.conf file on the Hadoop cluster machine and set the directories.tokendir property to the directory that you create in step 1 and save the change.
- 5. Log in to Test Data Manager and click Administrator > Connections.
- 6. Open the connection that you use to push mappings to the Hadoop environment.

You can find the Hadoop pushdown connection name from the **Administrator > Preferences > Hive Properties** tab.

- 7. On the Hadoop Cluster Properties tab, add the Cluster Environment Variable information:
 - Name: SOFTHSM2_CONF
 - Value: Enter the path to the softhsm2.conf file on the Hadoop cluster machine. For example, enter / home/tdmhdp/ENCRYPTION RELATED DATA/softhsm2.conf.

Regenerate Masking Plans with Format Preserving Encryption

Format preserving encryption uses pass phrases to encrypt and decrypt source data. The pass phrases are stored encrypted.

Because version 10.5 uses an updated SiteKey algorithm, you must generate the workflows created before upgrade. The SiteKey algorithm is used to store sensitive information.