Informatica®
10.5.3

Upgrading from Version 10.2.2 (10.5.3)

Informatica Upgrading from Version 10.2.2 (10.5.3)
10.5.3
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Preface

Follow the instructions in this upgrade guide to upgrade the product.

Review the upgrade guide to upgrade the services and clients for the Informatica domain. Verify the database requirements and set up the databases for the domain. You can verify the distributions for the supported products in the native and non-native environments. Verify that your environment meets the minimum system requirements for the installation process, temporary disk space, port availability, databases, and application service hardware.

You can upgrade the product services and clients on one or more machines. Run the server installer to upgrade on all nodes. After you upgrade the domain, you must log into the Administrator tool and upgrade the application services. You can then upgrade the Informatica clients on all machines.

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.

As an Informatica Network member, you have the following options:

- Search the Knowledge Base for product resources.
- View product availability information.
- Create and review your support cases.
- Find your local Informatica User Group Network and collaborate with your peers.

Informatica Knowledge Base

Use the Informatica Knowledge Base to find product resources such as how-to articles, best practices, video tutorials, and answers to frequently asked questions.

To search the Knowledge Base, visit https://search.informatica.com. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team at KB_Feedback@informatica.com.

Informatica Documentation

Use the Informatica Documentation Portal to explore an extensive library of documentation for current and recent product releases. To explore the Documentation Portal, visit https://docs.informatica.com.

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 http://velocity.informatica.com. If you have questions, comments, or ideas about Informatica Velocity, contact Informatica Professional Services at ips@informatica.com.

Informatica Marketplace

The Informatica Marketplace is a forum where you can find solutions that extend and enhance your Informatica implementations. Leverage any of the hundreds of solutions from Informatica developers and partners on the Marketplace to improve your productivity and speed up time to implementation on your projects. You can find the Informatica Marketplace at https://marketplace.informatica.com.

Informatica Global Customer Support

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 https://network.informatica.com and select the eSupport option.

CHAPTER 1

Upgrade Overview

This chapter includes the following topics:

Informatica Upgrade

The Informatica platform consists of a server component and one or more client components. Informatica provides separate installers to upgrade the Informatica services and clients.

When you upgrade each node in the domain, you can choose to change the node configuration to allow changes to the node host name, port numbers, or domain configuration repository database.

Upgrade Paths

The upgrade path that you take depends on the products that you upgrade. If you are on a version that doesn't 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 10.5.3 hotfix to version 10.5, 10.5.1, and 10.5.2 including any service pack or cumulative patch. You can upgrade to version 10.5.3 from the following previous versions: - 10.2 including any hotfix, service pack, or cumulative patch - 10.4 including any service pack or cumulative patch - 10.4.1 including any service pack or cumulative patch
Informatica Data Quality	You can apply the 10.5.3 hotfix to version 10.5, 10.5.1, and 10.5.2 including any service pack or cumulative patch. You can upgrade to version 10.5.3 from the following previous versions: - 10.2 including any hotfix, service pack, or cumulative patch - 10.4 including any service pack or cumulative patch - 10.4.1 including any service pack or cumulative patch

Product	Versions
Data Engineering Integration Data Engineering Quality	You can apply the 10.5.3 hotfix to version 10.5, 10.5.1, and 10.5.2 including any service pack or cumulative patch. You can upgrade to version 10.5.3 from the following previous versions: - 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 service pack or cumulative patch - 10.4.1 including any 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 10.5.3.
Data Engineering Streaming	You can apply the 10.5.3 hotfix to version 10.5, 10.5.1, and 10.5.2 including any service pack or cumulative patch. You can upgrade to version 10.5.3 from the following previous versions: - 10.2.2 including any hotfix, service pack, or cumulative patch - 10.4 including any service pack or cumulative patch - 10.4.1 including any service pack or cumulative patch
Data Privacy Management	You can apply the 10.5.3 hotfix to versions 10.5, 10.5.1, and 10.5.2 including any service pack or cumulative patch.
Enterprise Data Catalog	You can apply the 10.5.3 hotfix to version 10.5, 10.5.1, and 10.5.2 including any service pack or cumulative patch. You can upgrade to version 10.5.3 from the following previous versions: - 10.4 including any service pack or cumulative patch - 10.4.1 including any 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 10.5.3.
Enterprise Data Preparation	You can apply the 10.5.3 hotfix to version 10.5, 10.5.1, and 10.5.2 including any service pack or cumulative patch. You can upgrade to version 10.5.3 from the following previous versions: - 10.4 including any service pack or cumulative patch - 10.4.1 including any 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 10.5.3.
Test Data Management	You can apply the 10.5.3 hotfix to versions 10.5, 10.5.1, and 10.5.2 including any service pack or cumulative patch.

Upgrade Process

The upgrade of the Informatica services and Informatica clients consists of multiple phases.

The upgrade consists of the following phases:

1. Complete the pre-upgrade tasks for the domain to ensure that you can successfully run the installer.

2. Upgrade the domain. To upgrade the domain, run the Informatica server installer and select the upgrade option. The domain upgrade wizard installs the server files and configures the domain. If the domain has multiple nodes, you must upgrade all nodes. When you upgrade each node in the domain, you can choose to change the node configuration to allow changes to the node host name, port numbers, or domain configuration repository database.

The following table describes the actions that the installer performs when you upgrade the domain:

Tasks	Description
Runs Informatica Upgrade Advisor.	Installer runs the pre-upgrade to validate the services and checks for obsolete services, supported database, and supported operating system in the domain. Resolve the conflicts before you proceed with the upgrade.
Installs Informatica.	Installs Informatica directories and files into the new directory.
Copies infa_shared directory.	Copies the contents of the infa_shared directory from the existing installation directory into the new installation directory.
Copies the encryption key file.	Copies the domain encryption key file from the existing installation directory into the directory that you specify when you upgrade.
If the existing domain uses Kerberos authentication, copies the Kerberos configuration file and keytab files.	Copies the Kerberos configuration file from the existing installation directory into the new installation directory. Copies the keytab files from the existing installation directory into the encryption key directory that you specify when you upgrade.
Upgrades the domain.	The upgrade retains the user and administrator accounts in the domain.
Starts Informatica Services.	Starts Informatica Services on the node.

3. Upgrade the application services. After you upgrade the domain, log in to the Administrator tool and upgrade the application services. The service upgrade wizard provides a list of all application services that must be upgraded. It upgrades the services based on the order required by the dependent objects.

4. Upgrade Informatica Developer on all machines.

   Note: You cannot connect to the Informatica domain using the Developer tool from a previous version.

   To upgrade Informatica clients, run the Informatica client installer and select the upgrade option. If the clients are installed on multiple machines, upgrade the clients on all machines.

5. Perform the post-upgrade tasks.

   Note: If you upgrade the Informatica installation on more than one machine, complete the first upgrade with the detailed instructions in this guide. You can use the upgrade checklist in the appendix to perform subsequent upgrades.

CHAPTER 2

Before You Upgrade the Domain on Linux

This chapter includes the following topics:

Read the Release Notes

Read the Release Notes for updates to the installation and upgrade process. You can also find information about known and fixed issues for the release.

Find the Release Notes on the Informatica documentation portal.

Verify System Requirements

Verify that your environment meets the minimum system requirements for the installation process, temporary disk space, port availability, databases, and application service hardware.

For more information about product requirements and supported platforms, see the Product Availability Matrix.

Verify Temporary Disk Space and Permissions

Verify that your environment meets the minimum system requirements for the temporary disk space, permissions for the temporary files, and the Informatica client tools.

Disk space for the temporary files

The installer writes temporary files to the hard disk. Verify that you have 1 GB disk space on the machine to support the installation. When the installation completes, the installer deletes the temporary files and releases the disk space.

The following table describes the minimum disk space and memory requirements for PowerCenter or Data Engineering product installation:

Options	Minimum Requirements
Temporary disk space to run the installer	1 GB disk space
Install with application services for Data Engineering products	50 GB disk space, 8 GB RAM, and 8 cores. Out of the 50 GB, 25 GB is for the product installation binaries.
Install with application services for PowerCenter	50 GB disk space, 6 GB RAM, and 4 cores, Out of the 50 GB, 25 GB is for the product installation binaries.

Permissions for the temporary files

Verify that you have read, write, and execute permissions on the `/tmp` directory.

For more information about product requirements and supported platforms, see the
[Product Availability Matrix](#).

Verify the Domain Upgrade Requirements

Complete the pre-upgrade tasks before you start the upgrade. Run the installer on all machines that host previous versions of Informatica that you want to upgrade. In a multi-node domain, upgrade the gateway nodes before you upgrade the worker nodes. Before you perform the upgrade, verify that the Informatica domain truststore file contains only the TrustedCertEntry. You must delete all the PrivateKeyEntry entries from the file.

Verify that your machine meets the minimum system requirements to upgrade the Informatica domain.

Ensure that you have a minimum disk space of 50 GB and a RAM of 6 GB to upgrade the Informatica domain.

Note: When you upgrade, the installer requires an additional disk space used by the existing infa_shared directory.

Effective in version 10.5, Informatica increased the site key size from 128 bit to 256 bit. When you run the Informatica installer, you also need to back up the site key generated since you cannot recover the generated site key. You also do not need to provide the keyword and domain name when you generate the encryption key. The generated site key should be copied to each node or should be placed at shared location, which is accessible by each node. You must upgrade with the older site key when you run the upgrade installer. Ensure that you migrate the site key after domain upgrade.

For more information about product requirements and supported platforms, see the
[Product Availability Matrix](#).

Verify Site Key

Verify the site key before you upgrade. Back up the generated site key and run the upgrade installer with the older site key. After the domain upgrade, migrate the site key.

Effective in version 10.5, Informatica increased the site key size from 128 bit to 256 bit.

When you run the Informatica installer, back up the site key generated since you cannot recover the generated site key. You do not need to provide the keyword and domain name when you generate the encryption key.

Copy the generated site key to each node or place the site key generated at shared location, which is accessible by each node. When you run the upgrade installer. upgrade with the older site key.

After the domain upgrade, migrate the site key.

Review Patch Requirements on Linux

Before you install the Informatica services, verify that the machine has the required operating system patches and libraries.

PowerCenter on Linux

The following table lists the patches and libraries that the Informatica services require for PowerCenter on Linux:

Platform	Operating System	Operating System Patch
AWS Linux	Linux 2 - 2.0.20220805.0	All of the following packages: - e2fsprogs-libs-1.42.9-19.amzn2.x86_64 - keyutils-libs-1.5.8-3.amzn2.0.2.x86_64 - libsepol-2.5-8.1.amzn2.0.2.x86_64 - libselinux-2.5-12.amzn2.0.2.x86_64
Ubuntu	20.04.1	All of the following packages: - e2fsprogs/focal,now 1.45.5-2ubuntu1 amd64 [installed] - libkeyutils1/focal,now 1.6-6ubuntu1 amd64 [installed,automatic] - libselinux1/focal,now 3.0-1build2 amd64 [installed,automatic] - libsepol1/focal,now 3.0-1 amd64 [installed,automatic]
Ubuntu	18.04	All of the following packages: - e2fsprogs/focal,now 1.45.5-2ubuntu1 amd64 [installed] - libkeyutils1/focal,now 1.5.9-9.2ubuntu2 amd64 [installed,automatic] - libselinux1/focal,now 2.7-2build2 amd64 [installed,automatic] - libsepol1/focal,now 2.7-1ubuntu0.1 amd64 [installed,automatic]
Linux-x64	Red Hat Enterprise Linux 7.3	All of the following packages, where <version> is any version of the package: - e2fsprogs-libs-<version>.el7 - keyutils-libs-<version>.el7 - libselinux-<version>.el7 - libsepol-<version>.el7
Linux-x64	Red Hat Enterprise Linux 8	All of the following packages, where <version> is any version of the package: - e2fsprogs-libs-<version>.el8 - keyutils-libs-<version>.el8 - libselinux-<version>.el8 - libsepol-<version>.el8
Linux-x64	SUSE Linux Enterprise Server 12	Service Pack 2
Linux-x64	SUSE Linux Enterprise Server 15	Service Pack 0 and Service Pack 1.

Data Engineering on Linux

The following table lists the patches and libraries that the Informatica services require on Linux:

Platform	Operating System	Operating System Patch
AWS Linux	Linux 2 - 2.0.20220805.0	All of the following packages: - e2fsprogs-libs-1.42.9-12.amzn2.0.2.x86_64 - keyutils-libs-1.5.8-3.amzn2.0.2.x86_64 - libselinux-2.5-12.amzn2.0.2.x86_64 - libsepol-2.5-8.1.amzn2.0.2.x86_64
Ubuntu	20.04.1	All of the following packages: - e2fsprogs/focal,now 1.45.5-2ubuntu1 amd64 [installed] - libkeyutils1/focal,now 1.6-6ubuntu1 amd64 [installed,automatic] - libselinux1/focal,now 3.0-1build2 amd64 [installed,automatic] - libsepol1/focal,now 3.0-1 amd64 [installed,automatic]
Ubuntu	18.04	All of the following packages: - e2fsprogs/focal,now 1.45.5-2ubuntu1 amd64 [installed] - libkeyutils1/focal,now 1.5.9-9.2ubuntu2 amd64 [installed,automatic] - libselinux1/focal,now 2.7-2build2 amd64 [installed,automatic] - libsepol1/focal,now 2.7-1ubuntu0.1 amd64 [installed,automatic]
Linux-x64	Red Hat Enterprise Linux 6.7	All of the following packages, where <version> is any version of the package: - e2fsprogs-libs-<version>.el6 - keyutils-libs-<version>.el6 - libselinux-<version>.el6 - libsepol-<version>.el6
Linux-x64	Red Hat Enterprise Linux 7.3	All of the following packages, where <version> is any version of the package: - e2fsprogs-libs-<version>.el7 - keyutils-libs-<version>.el7 - libselinux-<version>.el7 - libsepol-<version>.el7
Linux-x64	Red Hat Enterprise Linux 8	All of the following packages, where <version> is any version of the package: - e2fsprogs-libs-<version>.el8 - keyutils-libs-<version>.el8 - libselinux-<version>.el8 - libsepol-<version>.el8
Linux-x64	SUSE Linux Enterprise Server 12	Service Pack 2
Linux-x64	SUSE Linux Enterprise Server 15	Service Pack 0 and Service Pack 1.

Verify Distribution Package Requirements (Linux and UNIX)

You can use third-party distribution packages to integrate the Informatica domain with the Hadoop or Databricks environment.

The Informatica domain and client require the distribution packages to process complex files within the Informatica domain, or to connect to Hadoop or Databricks environment when you process within the Informatica domain, or to push processing to Hadoop or Databricks environment.

If you need a distribution package, you can install it through the installer or through Integration Package Manager (the package manager) at any time.

Process within the Informatica domain

You can use the same distribution package that you used in the previous Informatica version to process complex files within the Informatica domain or to connect to the Hadoop or Databricks environment when you process within the Informatica domain.

The following adapters require distribution packages for processing within the Informatica domain:

- PowerExchange for Amazon S3
- PowerExchange for Google Cloud Storage
- PowerExchange for Google Cloud Storage for PowerCenter
- PowerExchange for Hadoop for PowerCenter
- PowerExchange for HBase
- PowerExchange for HDFS
- PowerExchange for Hive
- PowerExchange for JDBC V2
- PowerExchange for Kafka for PowerCenter
- PowerExchange for MapR-DB
- PowerExchange for Microsoft Azure Blob Storage
- PowerExchange for Microsoft Azure Data Lake Storage Gen1
- PowerExchange for Microsoft Azure Data Lake Storage Gen2

Process with Hadoop or Databricks environment

When you push processing to the Hadoop or Databricks environment, the Informatica domain and client require distribution packages. For more information about the supported distribution packages, see the Product Availability Matrix.

Review the Environment Variables

Configure the environment variables to work with the Informatica installation.

The following table describes the environment variables to review:

Variable	Description
IATEMPDIR	Location of the temporary files created during installation. Informatica requires 1 GB disk space for temporary files. Configure the environment variable if you do not want to create temporary files in the /tmp directory.
INFA_DOMAINS_FILE	Contains the location of the domains.infa file. Clear this variable before you start the upgrade.
INFA_HOME	Contains the location of the Informatica installation directory. Clear this variable before you start the upgrade.

Variable	Description
LANG and LC_ALL	Change the locale to set the appropriate character encoding for the terminal session. For example, set the encoding to `Latin1` or `ISO-8859-1` for French, `EUC-JP` or `Shift JIS` for Japanese, or `UTF-8` for Chinese or Korean. The character encoding determines the types of characters that appear in the UNIX terminal.
DISPLAY	Unset the DISPLAY environment before you run the installer. Installation might fail if the DISPLAY environment variable has some value.
Library path	Verify that the library path environment variables do not contain earlier versions of Informatica.
PATH	Verify that the PATH environment variables do not contain earlier versions of Informatica.
SKIP_VENDOR_CHECK	Configure the environment variable to remove the sudo prompt from the installer on Linux or AIX. Set the environment variable to true to remove the sudo prompt from the upgrade installer on Linux or AIX. **Note:** If you don't have sudo privileges, set the environment variable to true before you upgrade. If you have sudo privileges, you don't need to set the environment variable.

Download and Extract the Installer Files

The installer files are distributed as compressed files. You can get the Informatica installation file and distribution packages from the FTP link contained in your fulfillment email.

Download the Informatica installation tar file and the required distribution package ZIP files from the Informatica Electronic Software Download site. You can download them to a local directory or a shared network drive that is mapped on your machine.

Extract the Informatica installer files to a directory on your machine. The user that runs the installer must have read and write permissions on the installer files directory and execute permissions on the executable file.

Note: Ensure that you extract the installer files to a local directory as you can't run the installer from a mapped file.

Copy the ZIP files of the distribution packages to the following location: `<Informatica installer files>/source`

Note: The installer fails if the ZIP files for distribution packages aren't available in the source directory.

Verify Installer Package Checksum on Linux

Before you run the upgrade installer for the Informatica services, verify the install package integrity through the cksum command. The cksum command calculates the checksum value for the installer.

Verify the checksum for the specific installer files against the checksum of the installation files downloaded from the Informatica Electronic Software Download site.

The following table lists the checksum and file size for the Informatica services installer for Linux:

File	Checksum Value	File Size
informatica_1053_server_linux-x64.tar	2154528627	11639828480

A checksum mismatch can occur when there are data errors during download due to network issues or when data corruption occurs in the file on disk. For more information about the checksum errors, see HOW TO: Identify file errors after downloading Informatica installation files.

Run the Informatica Upgrade Advisor

Before you perform an upgrade, run the Informatica Upgrade Advisor to validate the services and check for obsolete services, supported database, and supported operating system in the domain.

Note: If you do not change the node configuration, you can run the Informatica Upgrade Advisor before you upgrade. If you run Informatica Upgrade Advisor before you migrate to a node with a different configuration, you might notice some database or node configuration failures that you can ignore.

Before you upgrade with changes to the domain configuration repository database, run i10Pi from the Informatica installer to review the installation support for the new database type, database version, operating system, or machine. For more information about the i10Pi configuration, see the *Informatica Installation Guide*.

1. Log in to the machine with a system user account.
2. Verify that the domain and the services are running before you run the Informatica Upgrade Advisor.
3. On a shell command line, run the install.sh file from the root directory.

   The installer displays the message to verify that the locale environment variables are set.
4. If the environment variables are not set, press **n** to exit the installer and set them as required.

   If the environment variables are set, press **y** to continue.
5. Press **2** to Upgrade Informatica.
6. Press **1** to run the Informatica Upgrade Advisor.

   The **Welcome** section appears.
7. Press **Enter**.

   The **Installation Directory** section appears.
8. Enter the current installation directory.
9. Press **Enter**.

   The **Domain and Node Configuration** section appears.

10. Enter the following domain information:

Property	Description
Domain name	Name of the domain. The default domain name is Domain_<MachineName>. The name must not exceed 128 characters and must be 7-bit ASCII only. It cannot contain a space or any of the following characters: ` % * + ; " ? , < > \ /
Gateway node host name	Host name of the machine that hosts the gateway node for the domain.
Gateway node port name	Port number of the gateway node.
Domain user name	User name for the domain administrator. You can use this user name to initially log in to Informatica Administrator. Use the following guidelines: The name is not case sensitive and cannot exceed 128 characters. The name cannot include a tab, newline character, or the following special characters: % * + / ? ; < >- The name can include an ASCII space character except for the first and last character. Other space characters are not allowed.
Domain password	Password for the domain administrator. The password must be more than 2 characters and must not exceed 16 characters. Not available if you configure the Informatica domain to run on a network with Kerberos authentication.

11. Press **Enter**.

    The **Infomatica Upgrade Advisor Summary** section appears.

12. Review the results of the advisor in the following log file: `Summary_<timestamp>.log`

13. Press **Enter** to close the Informatica Upgrade Advisor.

Back Up the Configuration Files

If any of the configuration files contain customization, updated, or new properties, back up the installation configuration files.

CHAPTER 3

Prepare for the Upgrade

This chapter includes the following topics:

Back Up the Data Transformation Files

Before you upgrade, you must back up the Data Transformation files that were created under previous versions. After you complete the upgrade, copy the files to the new installation directories to get the same custom global components as in the previous version.

The following table lists the files or directories that you must back up:

File or Directory	Default Location
Repository	<Informatica installation directory>\DataTransformation\ServiceDB
Custom Global Components directory (TGP files)	<Informatica installation directory>\DataTransformation\autoInclude\user
Custom Global Components directory (DLL and JAR files)	<Informatica installation directory>\DataTransformation\externLibs\user
Configuration file	<Informatica installation directory>\DataTransformation\CMConfig.xml
License file	<Informatica installation directory>\DataTransformation\CDELicense.cfg

Do not copy the Data Transformation Library files. Instead, install the Data Transformation Libraries again.

Back Up the Model Repository

Back up the contents of the Model repository using the Administrator tool.

To back up the Model repository, select the Model Repository Service in the Administrator tool. Then, on the **Domain Actions** menu, click **Repository Contents** > **Backup**.

Prepare the Data Integration Service

Before you upgrade the domain, verify that all the running jobs are complete. The Data Integration Service cannot recover a workflow that you interrupt during the upgrade process.

Prepare the Reference Data Directories

If you install or copy any reference data file to a non-default directory, back up the directory before you upgrade.

If you install or copy any reference data file to a directory outside the installation directory structure, you do not need to back up the directory.

By default, the upgrade operation preserves the contents of the following reference data directories:

- `<Informatica installation directory>/services/DQContent/INFA_Content/dictionaries/`
  Parent directory for the reference dictionary files.

- `<Informatica installation directory>/services/DQContent/INFA_Content/av/`
  Parent directory for the address reference data files.

- `<Informatica installation directory>/services/DQContent/INFA_Content/identity/`
  Parent directory for the identity population data files.

Record the directory location, so that you can restore the directory to the directory structure after you upgrade.

Back Up Databases

Before you upgrade the domain, back up the profiling warehouse, reference data warehouse, and workflow databases.

Prepare the Domain

Before you upgrade the domain, complete the steps to prepare the domain.

Shut Down the Domain

You can stop all the application services before you shut down the domain.You must shut down the domain before you back up domain and then upgrade the domain.

To shut down the domain, stop the Informatica service process on each node in the domain.

You can stop the Informatica service process on each node using one of the following methods based on the supported environment:

- To stop the Informatica from the Windows Start menu, click **Programs** > **Informatica[Version]** > **Server** > **Stop Informatica Services**.
- To stop Informatica on UNIX, you use the *infaservice* command. By default, the *infaservice* executable file is installed in the following directory:

      <Informatica installation directory>/tomcat/bin

  Enter the following command to stop the daemon:

      infaservice shutdown

You can also stop the Informatica service from the Windows control panel or from the Administrator tool based on the supported environment.

Back Up the Domain

Before you upgrade the domain, you must back up the configuration metadata for the domain.

Complete the following steps to back up the domain:

- Run the infasetup BackupDomain command to back up the domain configuration database tables to a file.
- Back up the metadata configuration files to any directory accessible by the machines where you install Informatica.

Informatica infasetup includes command line programs to back up and restore the domain. infasetup is located in the following directory:

      <Informatica installation directory>/isp/bin

To back up the domain with infasetup, use the following syntax:

```
BackupDomain
<<-DatabaseAddress|-da> database_hostname:database_port|

<-DatabaseConnectionString|-cs> database_connection_string>

<-DatabaseUserName|-du> database_user_name

<-DatabasePassword|-dp> database_password

<-DatabaseType|-dt> database_type

[<-DatabaseServiceName|-ds> database_service_name]

<-BackupFile|-bf> backup_file_name

[<-Force|-f>]

<-DomainName|-dn> domain_name

[<-Tablespace|-ts> tablespace_name (used for IBM DB2 only)]

[<-SchemaName|-sc> schema_name (used for Microsoft SQL Server only)]

[<-DatabaseTlsEnabled|-dbtls> database_tls_enabled]

[<-DatabaseTruststorePassword|-dbtp> database_truststore_password]
```

```
[<-TrustedConnection|-tc> trusted_connection (used for Microsoft SQL Server only)]

[<-EncryptionKeyLocation|-kl> encryption_key_location]
```

Back up the metadata configuration files to any directory accessible by the machines where you install Informatica. The following table describes the metadata files and the locations where you can find them:

Metadata File	Description
nodemeta.xml	Contains metadata for a node. Stored in the isp/config directory on each node in the domain. If you use the same backup directory name on all the nodes, rename nodemeta.xml before copying it to the backup location. For example, you back up nodemeta.xml to the /nodebak directory on nodeA and nodeB. Rename the configuration files so that on nodeA the file is backed up to /nodebak/nodemeta_A.xml, and on nodeB the file is backed up to /nodebak/nodemeta_B.xml.
domains.infa	Contains connectivity information for the gateway nodes. Stored in one of the following locations: - The Informatica installation directory on the client and server machines. - The location configured through the INFA_DOMAINS_FILE environment variable.

CHAPTER 4

Upgrade the Domain

This chapter includes the following topics:

Upgrade the Informatica Domain

The upgrade wizard reads the domain information from files in the previous version and uses the same settings to configure the domain and server files for the upgrade. It upgrades the tables of the domain configuration repository in the same database as the previous version. You can upgrade in console or silent mode.

You can perform the upgrade from the directory where you downloaded the installation files.

Upgrade in Console Mode

You can upgrade in console mode on UNIX or Linux.

When you run the installer in console mode, the words quit, back, and help are reserved words. Do not use them as input text.

1. Log in to the machine with the same user account that you used to install the previous version.
2. Stop all processes that access the directory and subdirectories of the Informatica product to upgrade, including command prompts and tail logs.
3. On a shell command line, run the install file.

   The installer displays the message to verify that the locale environment variables are set.
4. If the environment variables are not set, press **n** to exit the installer and set them as required.

   If the environment variables are set, press **y** to continue.
5. Press **2** to upgrade Informatica.
6. Press **1** to run the Informatica Upgrade Advisor.

Informatica provides utilities to facilitate the Informatica services installation process. You can run the utility before you upgrade Informatica services. The Informatica Upgrade Advisor helps to validate the services and checks for obsolete services in the domain before you perform an upgrade.

The installer displays a warning to shut down the Informatica domain that you want to upgrade before you continue the upgrade.

7. Read the terms and conditions of Informatica product usage toolkit and press **2** to continue the upgrade.

   Subject to your opt-out rights described below, the software will automatically transmit to Informatica in the USA the 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 can disable usage collection in the Administrator tool.

8. The **Upgrade Prerequisites** page displays the upgrade system requirements.

   Verify the requirements before you continue the upgrade.

9. Review the upgrade information and press **Enter** to continue.

   The **Upgrade Directory** panel appears.

10. At the prompt, enter the directory of the Informatica version you want to upgrade and the directory in which you want to upgrade to Informatica 10.5.3.

    The following table describes the directories you must specify:

Directory	Description
Directory of the Informatica product to upgrade	Directory that contains the version of Informatica services that you want to upgrade.
Directory for Informatica 10.5.3	Directory in which to install Informatica 10.5.3. Enter the absolute path for the installation directory. The directory cannot be the same as the directory that contains the previous version of Informatica services.The directory names in the path must not contain spaces or the following special characters: @|* $ # ! % ( ) { } [ ] , ; ' **Note:** If you use a special character such as á or €, unexpected results might occur at run time.

11. From the following installation options, select the upgrade environment based on your requirement:

    - Sandbox. Used for proof of concepts or as a sandbox with minimal users.

    - Development. Used for a design environment.

    - Test. Used for high-volume processing environment that resembles a production environment.

    - Production. Used for production environments with high-volume processing and high levels of concurrency meant for end users.

12. Select if you want to change the node host name, port numbers, or domain configuration repository. Press **1** to use the same node configuration as the previous version. Press **2** to change the node configuration.

    The **Component Selection** panel appears.

13. Press **1** to upgrade Informatica services.

14. Choose whether you want to install distribution packages through the Informatica installer.

- Press **1** if you don't need distribution packages or if you want to install them later.
- Press **2** if you want to install distribution packages through the installer.

    Default is 1.

15. If you choose to install distribution packages, select one or more packages from the list that you want to install. Separate multiple packages with a comma.

    Default is 1.

16. Press **Enter**.

    The **Domain Security Encryption Key** panel appears.

17. Enter the user name and password for the Informatica domain.

    The **Pre-installation Summary** page appears.

18. Review the upgrade information and press **Enter** to continue.

    After the domain upgrade completes, the **Domain Configuration Repository** panel appears.

19. Press **Enter** to continue the upgrade.

    The installer copies the server files to the Informatica 10.5.3 installation directory.

    The installer displays the database and user account information for the domain configuration repository to upgrade. It displays the database connection string for the domain configuration repository based on how the connection string of the previous version was created at installation:

    - If the previous version used a JDBC URL at installation, the installer displays the JDBC connection properties, including the database address and service name.
    - If the previous version used a custom JDBC connection string at installation, the installer displays the custom connection string.

20. If you use a JDBC URL, you can specify additional parameters to include in the connection string.

    If you use a custom connection string, you cannot specify additional parameters.

21. Review the information and press **Enter**.

    The upgrade completes and the **Post-installation Summary** panel appears.

22. Press **Enter** to complete the installation procedure and exit the installer.

Review the `upgrade.log` file to get more information about the tasks performed by the upgrade wizard and to view the configuration of installed components.

Upgrade in Silent Mode

You can upgrade in silent mode without user interaction.

You can upgrade in silent mode to upgrade the domain on the same machine and on the same domain configuration repository database.

To upgrade the Informatica domain services without user interaction, upgrade in silent mode. Use a properties file to specify the upgrade options. The installer reads the file to determine the upgrade options. You can use silent mode upgrade to upgrade the Informatica domain services on multiple machines on the network or to standardize the upgrade process across machines.

Copy the Informatica installation files to the machine that hosts the Informatica instance you plan to upgrade.

To upgrade in silent mode, complete the following tasks:

1. Create the upgrade properties file and specify the upgrade options.
2. Run the installer with the upgrade properties file.
3. Secure the passwords in the upgrade properties file.

Encrypting Passwords in the Properties File

The installer includes a utility that you can use to encrypt passwords you set in the properties file you use to specify options when you run the installer in silent mode. Informatica uses AES encryption with multiple 256-bit keys to encrypt passwords.

You run the utility for each password you want to encrypt. When you run the utility, you specify the value of the password in plain text at the command prompt. The utility generates the password in encrypted format as output. The output includes the following prefix: `=INSTALLER:CIPHER:AES:256=`

Copy the complete output string, including the prefix, and then paste it into the properties file as the value for the password property. When you run the installer in silent mode, the installation framework decrypts the password.

1. Go to the utility directory:

   `<Installer directory>/properties/utils/passwd_encryption`

2. Run the utility. Specify the plain text password you want to encrypt as the value for <password>.

   - On Linux and UNIX, run the following command:

     `sh install.sh <password>`

   - On Windows, run the following command:

     `install.bat <password>`

3. Copy the encrypted password string from the output, and then paste the string into the .properties file as the value for the corresponding password.

   The following example shows the encrypted password set as the value for the DOMAIN_PSSWD property:

   `DOMAIN_PSSWD==INSTALLER:CIPHER:AES:256=mjkjmDR2kzFJiizfRWIOPg==`

Creating the Properties File

Informatica provides two versions of the properties file. Use either file to specify options for your installation.
Silent input upgrade new config properties file

> Use the silent input upgrade new configuration properties file to upgrade Informatica domain services with changes to the node configuration and without user interaction.

> The silent input upgrade new configuration properties file contains the configuration properties required to upgrade the Informatica domain services in silent mode. Use the file if you want to consider the appropriate value to set for each property in the file.

Default silent input upgrade properties file

> Use the silent input upgrade properties file to upgrade Informatica domain services without user interaction.

> The default silent input properties file contains default values for many configuration properties. Use the file if you plan to upgrade the Informatica domain services using the default property values.

Informatica provides a sample properties file that includes the upgrade parameters that are required by the installer. You can customize the sample properties file to specify the options for your upgrade.

The sample upgrade properties file is named SilentInput_upgrade.properties and is located in the installer download location. After you customize the file, save it with the file name SilentInput.properties.

1. Go to the root of the directory that contains the installation files.

2. Find the file named SilentInput_upgrade.properties.

   Back up the file before you modify it.

3. Use a text editor to open the file and modify the values of the upgrade parameters.

   The following table describes the upgrade parameters that you can modify:

Property Name	Description
INSTALL_TYPE	Indicates whether to install or upgrade Informatica. If the value is 0, the installer performs a fresh installation of Informatica. If the value is 1, the installer upgrades a previous version of Informatica.
USER_INSTALL_DIR	Directory in which to install the new version of Informatica services. The directory cannot be the same as the directory that contains the previous version of Informatica services.
UPG_BACKUP_DIR	Directory that contains the previous version of Informatica services that you want to upgrade.
INSTALL_HADOOP_LIBRARIES	Determines whether to install distribution packages through the installer. Set the value to true if you want to install distribution packages through the installer. Set the value to false if you don't need distribution packages or if you want to install them later.
SELECTED_HADOOP_LIBRARIES	Determines the distribution packages that you want to install from the supported packages list. Enter the distribution packages that you want to install, separating multiple packages with a comma.
KEY_DEST_LOCATION	Directory in which to store the encryption key for the node created during the installation.
DOMAIN_USER	User name for the Informatica domain.
DOMAIN_PSSWD	Password for the Informatica domain.
ENABLE_USAGE_COLLECTION	Enables Informatica DiscoveryIQ, a product usage tool that sends routine reports on data usage and system statistics to Informatica. Informatica DiscoveryIQ uploads data to Informatica 15 minutes after you install and configure Informatica domain. Thereafter, the domain sends the data every 30 days. You can choose to not send any usage statistics to Informatica. For more information on how to disable sending usage statistics, see the *Informatica Administrator Guide*. You must set the value to 1 to upgrade.

4. Save the properties file with the name SilentInput.properties.

Running the Silent Installer

After you create the properties file, open a command prompt to start the silent upgrade.

1. Open a command prompt.
2. Go to the root of the server installer directory.
3. Verify that the directory contains the file SilentInput.properties with the upgrade options.
4. Run the silentInstall executable.

The silent upgrade runs in the background. The process can take a while. The silent upgrade process is complete when the Informatica_<Version>_Services_InstallLog<timestamp>.log is created in the installation directory.

The silent upgrade fails if you incorrectly configure the properties file or if the installation directory is not accessible. If the upgrade fails, view the silent upgrade log file and correct the errors. Then run the silent installer again. The silent upgrade log file name is silentErrorLog.log.

The installer creates the log file in the user home directory.

Troubleshooting the Domain Upgrade

Consider the following troubleshooting tips when you face any issue during or after the domain upgrade:

The domain upgrade fails.

If the upgrade does not complete successfully, review log files to determine the cause of the failure. The upgrade log files are in the root of the directory where the new version of Informatica is installed. Review the following log file: Informatica_<Version>_Services_Upgrade.log.

If the upgrade continues to fail, restore the domain configuration repository database from the backup and run the installer again.

404 error message appears when you access the Administrator tool.

If the Administrator tool is configured for secure communication, you might receive a `404 Not Found` message when you access the Administrator tool. This issue occurs when the machine that runs the gateway node cannot access the keystore file used for the HTTPS connection to the Administrator tool. Copy the file to an accessible location, and then shut down the domain. Run the infasetup UpdateGatewayNode command to update the gateway node with the location of the keystore file. You must run the command on each gateway node in the domain.

The domain crashes during or after the upgrade.

If the domain crashes during or after the upgrade, restore the siteKey file from the domain backup or generate the encryption key using the same keyword and domain name that you specified while generating the sitekey in the previous version of the domain.

In a multi-node configuration, errors might occur when you use a different site key than the master node.

If you have a multi-node configuration and when you use a different site key, you might run into the following errors:

```
021-03-03 12:51:44,795 FATAL [Domain Monitor] [DOM_10061] Cannot register node
[newISPNode1]
```

```
with the domain because the master gateway node is not running or is not connected to the
domain. Verify that all gateway nodes are running on the domain.

com.informatica.isp.corecommon.exceptions.ISPException: [CCM_10342] The following
exception
occurred: [[FrameworkUtils_0018] The encryption key for the node is different from the
encryption for the domain. All the nodes in a domain must use the same encryption key. To
change the encryption key for the domain, run the infasetup migrateEncryptionKey command
on
all nodes in the domain.].)
```

To resolve this issue, ensure that you use the same site key as in the master node.

CHAPTER 5

Upgrade the Domain with Changes to Node Configuration

This chapter includes the following topics:

Upgrade the Domain with Changes to Node Configuration Overview

Before you upgrade the domain with changes to the node configuration, you must perform steps to prepare for the upgrade. The steps that you perform depend on the kind of change that you plan to make to the node configuration. You can migrate the domain configuration repository to a different database. Or, you can migrate the Informatica services installation to a different machine.

When you upgrade the domain, you can choose to change the node configuration to allow changes to the node host name, port numbers, or domain configuration repository database.

If you migrated an Informatica services installation to a different machine, choose to change the node configuration to upgrade the domain and configure the node on the new machine. If you migrated the domain configuration repository to a different database, choose to change the node configuration to upgrade the domain and configure the new database.

Complete the pre-upgrade tasks before you run the installer.

Before you upgrade with changes to the domain configuration repository database, run i10Pi from the Informatica installer to review the installation support for the new database type, database version, operating system, or machine. For more information about the i10Pi configuration, see the *Informatica Installation Guide*.

You can run the installer in console or silent mode.

Migrating to a Different Database

If the domain configuration repository database type or version is no longer supported, you must migrate the repository to a different supported database. Migrate the repository in the previous Informatica instance before you upgrade the domain.

Note: If you do not change the node configuration, you can run the Informatica Upgrade Advisor before you upgrade. If you run Informatica Upgrade Advisor before you migrate to a node with a different configuration, you might notice some database or node configuration failures that you can ignore.

If you want to migrate to a different database, run i10Pi available from the Informatica installer to test the installation support of the new database type or version. For more information about the i10Pi configuration, see the *Informatica Installation Guide*.

For more information about product requirements and supported platforms, see the Product Availability Matrix.

1. Shut down the domain.
2. Verify that you have backed up the domain configuration database tables to a file with the infasetup BackupDomain command.
3. Create a database schema and a user account in a supported database.
4. Run the i10Pi available from the Informatica installer with the database user account created to test the installation supported for a different database. Ensure that i10pi shows the database users as supported for the version in which you are about to upgrade.
5. Restore the domain configuration in the backup file to the specified database schema with the infasetup RestoreDomain command.
6. Run the upgrade installer.
7. When you upgrade a gateway node, select the **Allow changes to the node host name and port number** option. When you select this option, you can configure the gateway node to connect to the new domain configuration repository database. All gateway nodes must have a connection to the domain configuration repository to retrieve and update domain configuration. When you upgrade a worker node, clear the **Allow changes to the node host name and port number** option.

Migrating the Installation to a Different Machine

If the Informatica services are installed on a machine with an operating system that is no longer supported, you must migrate the installation to a different machine before you upgrade the domain.

For more information about product requirements and supported platforms, see the Product Availability Matrix.

Before you upgrade the domain, complete the following steps on the machine where you want the new version of Informatica to run:

1. Run the i10Pi available from the Informatica installer to test the installation support of the new machine.
2. Copy the installation directory with all the installation binaries from the previous machine to the new machine.
3. Verify port requirements.
4. Create a system user account.

5. Configure native connectivity for all services that require access to databases.

6. Run the upgrade installer in the new supported machine.

When you upgrade the migrated node, select the **Allow changes to the node host name and port number** option. When you select this option, you can update the configuration of the node on the new machine. When you upgrade other nodes in the domain that you did not migrate to different machines, clear the **Allow changes to the node host name and port number** option.

Step 1. Copy the Installation Directory

Copy the directory of the previous version of Informatica to the machine where you want the new version of Informatica to run.

For example, if the previous version of Informatica is installed in `C:\Informatica\<version>`, copy the `C:\Informatica\<version>` directory and subdirectories to the new machine.

When you run the upgrade installer, specify the Informatica installation directory on the new machine as the one that you want to upgrade.

Step 2. Verify Port Requirements

The installer sets up the ports for components in the Informatica domain, and it designates a range of dynamic ports to use for some application services.

You can specify the port numbers to use for the components and a range of dynamic port numbers to use for the application services. Or you can use the default port numbers provided by the installer. Verify that the port numbers are available on the machines where you install the Informatica services.

The following table describes the ports that you can set:

Port	Description
Service Manager port	Port number used by the Service Manager on the node. The Service Manager listens for incoming connection requests on this port. Client applications use this port to communicate with the services in the domain. The Informatica command line programs use this port to communicate to the domain. This is also the port for the SQL data service JDBC/ODBC driver. Default is 6006.
Service Manager Shutdown port	Port number that controls server shutdown for the domain Service Manager. The Service Manager listens for shutdown commands on this port. Default is 6007.
Informatica Administrator port	Port number used by Informatica Administrator. Default is 6008.
Informatica Administrator HTTPS port	No default port. Enter the required port number when you create the service. Setting this port to 0 disables an HTTPS connection to the Administrator tool.
Informatica Administrator shutdown port	Port number that controls server shutdown for Informatica Administrator. Informatica Administrator listens for shutdown commands on this port. Default is 6009.
Minimum port number	Lowest port number in the range of dynamic port numbers that can be assigned to the application service processes that run on this node. Default is 6014.
Maximum port number	Highest port number in the range of dynamic port numbers that can be assigned to the application service processes that run on this node. Default is 6114.

Note: Services and nodes can fail to start if there is a port conflict. You can update the range of ports for application services after you upgrade.

Step 3. Create a System User Account

Create a user account specifically to run the Informatica background process.

Verify that the user account you use to install Informatica has write permission on the installation directory.

Step 4. Configure Native Connectivity on Service Machines

To establish native connectivity between an application service and a database, install the database client software for the database that you want to access.

Native drivers are packaged with the database server and client software. Configure connectivity on the machines that need to access the databases. To ensure compatibility between the application service and the database, install a client software that is compatible with the database version and use the appropriate database client libraries.

The Data Integration Service uses native database drivers to connect to the following databases:

- Source and target databases. Reads data from source databases and writes data to target databases.
- Data object cache database. Stores the data object cache.
- Profiling source databases. Reads from relational source databases to run profiles against the sources.
- Profiling warehouse. Writes the profiling results to the profiling warehouse.
- Reference tables. Runs mappings to transfer data between the reference tables and the external data sources.

When the Data Integration Service runs on a single node or on primary and back-up nodes, install database client software and configure connectivity on the machines where the Data Integration Service runs.

When the Data Integration Service runs on a grid, install database client software and configure connectivity on each machine that represents a node with the compute role or a node with both the service and compute roles.

Step 5. Install Database Client Software

You must install the database clients on the required machines based on the types of databases that the application services access.

To ensure compatibility between the application service and the database, use the appropriate database client libraries and install a client software that is compatible with the database version.

When you upgrade Informatica services, ensure that you install the appropriate database client on the machine that runs the Data Integration Service.

Install the following database client software based on the type of database that the application service accesses:

IBM DB2 Client Application Enabler (CAE)

Configure connectivity on the required machines by logging in to the machine as the user who starts Informatica services.

Microsoft SQL Server 2014 Native Client

You must install the Microsoft SQL Server 2014 Native Client for the existing mappings to work.

Download the client from the following Microsoft website:
http://www.microsoft.com/en-in/download/details.aspx?id=42295.

Oracle client

Install compatible versions of the Oracle client and Oracle database server. You must also install the same version of the Oracle client on all machines that require it. To verify compatibility, contact Oracle.

Sybase Open Client (OCS)

Install an Open Client version that is compatible with the Sybase ASE database server. You must also install the same version of Open Client on the machines hosting the Sybase ASE database and Informatica. To verify compatibility, contact Sybase.

Step 6. Configure Database Client Environment Variables

Configure database client environment variables on the machines that run the Data Integration Service process.

After you configure the database environment variables, you can test the connection to the database from the database client.

The following table lists the database environment variables you need to set:

Database	Environment Variable Name	Database Utility	Value
Oracle	ORACLE_HOME PATH	sqlplus	Set to: *<DatabasePath>* Add: *<DatabasePath>*/bin
IBM DB2	DB2DIR DB2INSTANCE PATH	db2connect	Set to: *<DatabasePath>* Set to: *<DB2InstanceName>* Add: *<DatabasePath>*/bin
Sybase ASE	SYBASE15 SYBASE_ASE SYBASE_OCS PATH	isql	Set to: *<DatabasePath>*/sybase*<version>* Set to: ${SYBASE15}/ASE-*<version>* Set to: ${SYBASE15}/OCS-*<version>* Add: ${SYBASE_ASE}/bin:${SYBASE_OCS}/bin:$PATH

Upgrading in Console Mode

When you upgrade in console mode, you can change the node configuration to upgrade the domain to a different machine or to a different domain configuration repository database. You can upgrade the domain in console mode on Linux or UNIX.

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

1. On a shell command line, run the install.sh file from the root directory.

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

2. If the environment variables are not set, press **n** to exit the installer and set them as required.

   If the environment variables are set, press **y** to continue.

3. Press **2** to upgrade Informatica.

    Informatica provides utilities to facilitate the Informatica services installation process. You can run the following utility before you upgrade Informatica services:
    Informatica Upgrade Advisor.

    Validates the services and checks for obsolete services in the domain before you perform an upgrade.

    The installer displays a warning to shut down the Informatica domain that you want to upgrade before you continue the upgrade.

4. Press **2** to upgrade to Informatica 10.5.3.

5. Read the terms and conditions of Informatica product usage toolkit and press **2** to continue the upgrade.

    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](). You can disable usage collection in the Administrator tool.

6. The **Upgrade Prerequisites** page displays the upgrade system requirements.

    Verify the requirements before you continue the upgrade.

7. At the prompt, enter the directory of the Informatica version that you want to upgrade and the directory where you want to install Informatica 10.5.3.

    The following table describes the directories you must specify:

Directory	Description
Directory of the Informatica product to upgrade	Directory that contains the version of Informatica services that you want to upgrade.
Directory for Informatica	Directory in which to install Informatica .
	Enter the absolute path for the installation directory. The directory cannot be the same as the directory that contains the previous version of Informatica services.The directory names in the path must not contain spaces or the following special characters: @|* $ # ! % ( ) { } [ ] , ; '
	Note: Informatica recommends using alphanumeric characters in the installation directory path. If you use a special character such as á or €, unexpected results might occur at run time.
	On Windows, the installation directory must be on the current machine.

8. Enter **2** to allow changes to the node host name and port number.

    Use this option to change the configuration of the Informatica installation that you upgrade. If you are upgrading to a different machine, change the node configuration to match the configuration of the new machine. If you are upgrading to a different domain configuration repository database, change the node configuration to match the configuration of the new database.

9. Choose whether you want to install distribution packages through the Informatica installer.

    - Press **1** if you don't need distribution packages or if you want to install them later.

    - Press **2** if you want to install distribution packages through the installer.

    Default is 1.

10. If you choose to install distribution packages, select one or more packages from the list that you want to install. Separate multiple packages with a comma.

    Default is 1.

11. Enter the directory for the encryption key for the informatica domain.

    Informatica uses an encryption key to secure sensitive data, such as passwords, that are stored in the Informatica domain. When you upgrade, you must enter the directory in which to store the encryption key on the node that you are upgrading.

    Note: All nodes in an Informatica domain use the same keyword and encryption key. You must keep the name of the domain, the keyword for the encryption key, and the encryption key file in a secure location. The encryption key is required when you change the encryption key of the domain or move a repository to another domain.

Property	Description
Encryption key directory	Directory in which to store the encryption key for the domain. By default, the encryption key is created in the following directory: `<Informatica installation directory>/isp/config/keys`

12. Enter the user name and password for the informatica domain.

13. Review the upgrade information and press **Enter** to continue.

    The installer copies the server files to the Informatica 10.5.3 installation directory.

    The installer displays a warning to shut down the Informatica domain that you want to upgrade before you continue the upgrade.

14. Press **Enter**.

15. If you are upgrading a gateway node, select the database to use for the domain configuration repository.

    If you are upgrading a worker node, the domain configuration repository information does not appear. You cannot modify the database connection information. Skip to step 18.

    The following table lists the databases you can use for the domain configuration repository:

Prompt	Description
Database type	Type of database for the domain configuration repository. Select from the following options: 1 - Oracle 2 - Microsoft SQL Server 3 - IBM DB2 4 - Sybase ASE 5 - PostgreSQL

16. Enter the properties for the database user account.

The following table lists the properties for the database user account:

Property	Description
Database user ID	Name for the domain configuration database user account.
User password	Password for the domain configuration database user account.

17. Enter the parameters for the database. If you do not create a secure domain configuration repository, enter the parameters for the database.

a. If you select IBM DB2, select whether to configure a tablespace and enter the tablespace name.

The following table describes the properties that you must configure for the IBM DB2 database:

Property	Description
Configure tablespace	In a single-partition database, if you select No, the installer creates the tables in the default tablespace. In a multi-partition database, you must select Yes. Select whether to specify a tablespace: 1 - No 2 - Yes
Tablespace	Name of the tablespace in which to create the tables. Specify a tablespace that meets the pageSize requirement of 32768 bytes. In a single-partition database, enter the name of the tablespace in which to create the tables. In a multipartition database, specify the name of the non-partitioned tablespace that resides in the catalog partition of the database.

b. If you select Microsoft SQL Server, enter the schema name for the database.

The following table describes the properties that you must configure for the Microsoft SQL Server database:

Property	Description
Schema name	Name of the schema that will contain domain configuration tables. If this parameter is blank, the installer creates the tables in the default schema.

c. To enter the JDBC connection information using the JDBC URL information, press **1**. To enter the JDBC connection information using a custom JDBC connection string, press **2**.

d. Enter the JDBC connection information.

- To enter the connection information using the JDBC URL information, specify the JDBC URL properties.

The following table describes the database connection information:

Prompt	Description
Database host name	Host name for the database.
Database port number	Port number for the database.
Database service name	Service or database name: - Oracle: Enter the service name. - Microsoft SQL Server: Enter the database name. - IBM DB2: Enter the service name. - Sybase ASE: Enter the database name. - PostgreSQL: Enter the database name.
Configure JDBC Parameters	Select whether to add additional JDBC parameters to the connection string: 1 - Yes 2 - No If you select Yes, enter the parameters or press Enter to accept the default. If you select No, the installer creates the JDBC connection string without parameters.

- To enter the connection information using a custom JDBC connection string, type the connection string.
  Use the following syntax in the JDBC connection string:
  IBM DB2

  ```
  jdbc:Informatica:db2://<host name>:<port number>;DatabaseName=
  ```

  Oracle

  ```
  jdbc:Informatica:oracle://<host name>:<port number>;ServiceName=
  ```

  Use the following connection string to connect to the Oracle database through the Oracle Connection Manager:

  ```
  jdbc:Informatica:oracle:TNSNamesFile=<fully qualified path to the tnsnames.ora file>;TNSServerName=<TNS name>;
  ```

  Microsoft SQL Server

  ```
  jdbc:Informatica:sqlserver://<host name>:<port number>;SelectMethod=cursor;DatabaseName=
  ```

  Microsoft SQL Server with Windows NT credentials

  If you specified the Windows NT credentials for the Model repository database on Microsoft SQL Server, specify the connection string syntax to include the authentication method as NTLM.

  Microsoft SQL Server that uses the default instance with Windows NT credentials:

  ```
  "jdbc:informatica:sqlserver://<host name>:<port number>;DatabaseName=<database name>;SnapshotSerializable=true;authenticationMethod=NTLM"
  ```

  Microsoft SQL Server that uses a named instance with Windows NT credentials:

```
"jdbc:informatica:sqlserver://<host name>\<named instance
name>;DatabaseName=<database
name>;SnapshotSerializable=true;authenticationMethod=NTLM"
```

Microsoft Azure SQL

```
jdbc:Informatica:sqlserver://<host name>:<port
number>;SelectMethod=cursor;DatabaseName=<database
name>;SnapshotSerializable=true;EncryptionMethod=SSL;HostNameInCertificate=*.d
atabase.windows.net;ValidateServerCertificate=false
```

Azure SQL Database with Active Directory authentication

```
jdbc:informatica: sqlserver://
<host_name>:<port_number>;database=<database_name>;encrypt=true;Authentication
Method=ActiveDirectoryPassword;trustServerCertificate=false;hostNameInCertific
ate=*.database.windows.net;loginTimeout=<seconds>
```

PostgreSQL

```
jdbc:Informatica:postgresql://<host name>:<port number>;DatabaseName=
```

Azure PostgreSQL

```
jdbc:Informatica:postgresql://<host name>:<port number>;DatabaseName=<database
name>;EncryptionMethod=SSL;ValidateServerCertificate=true;CryptoProtocolVersio
n=TLSv1.2;
```

Sybase

```
jdbc:Informatica:sybase://<host name>:<port number>;DatabaseName=
```

Verify that the connection string contains all the connection parameters required by your database system.

18. Modify the node host name and port number to match the configuration of the new version of Informatica.

The following table describes the domain and node properties that you can specify:

Property	Description
Domain name	Name of the domain. The default domain name is Domain_<MachineName>. The name must not exceed 128 characters and must be 7-bit ASCII only. It cannot contain a space or any of the following characters: ` % * + ; " ? , < > \ /
Node name	Name of the node that you are upgrading.
Node host name	Host name of the machine that hosts the node you are upgrading. If the machine has a single network name, use the default host name. If the machine has multiple network names, you can modify the default host name to use an alternate network name. Optionally, you can use the IP address. Note: Do not use localhost. The host name must explicitly identify the machine.
Custom keystore password	Plain text password for the custom keystore file. Enter the custom keystore password if you are securing the Informatica Administrator with a custom keystore file and you are upgrading to a different gateway node configuration.

Property	Description
Custom keystore file	Path and file name of the custom keystore file. Enter the custom keystore file if you are securing the Informatica Administrator with a custom keystore file and you are upgrading to a different gateway node configuration. If you leave this field blank, the installer looks for the keystore file in the following directory: `<Informatica installation directory>\tomcat\conf\`
Node port number	Port number for the node you are upgrading. The default port number for the node is 6005.
Gateway node host name	Host name of the machine that hosts the gateway node for the domain. Available if you upgrade a worker node.
Gateway node port number	Port number of the gateway node. Available if you upgrade a worker node.

19. The installer displays the port numbers assigned to the domain components.

    You can specify port numbers or use the default port numbers.

    The following table describes the ports that you can specify:

Port	Description
Service Manager port	Port number used by the Service Manager in the node. Client applications and the Informatica command line programs use this port to communicate to the services in the domain.
Service Manager Shutdown port	Port number that controls server shutdown for the domain Service Manager. The Service Manager listens for shutdown commands on this port.
Informatica Administrator port	Port number used by the Administrator tool. Available if you upgrade a gateway node.
Informatica Administrator shutdown port	Port number used by the Administrator tool to listen for shut down commands. Available if you upgrade a gateway node.

The Post-Installation Summary window indicates whether the upgrade completed successfully. It also shows the status of the installed components and their configuration.

You can view the upgrade log files to get more information about the upgrade tasks performed by the installer and to view the configuration properties for the installed components.

Upgrading in Silent Mode

When you upgrade in silent mode, you can change the node configuration to upgrade the domain to a different machine or to a different domain configuration repository database.

To upgrade the Informatica services without user interaction, upgrade in silent mode. Use a properties file to specify the upgrade options. The installer reads the file to determine the upgrade options. You can use silent

mode upgrade to upgrade the Informatica services on multiple machines on the network or to standardize the upgrade process across machines.

Copy the Informatica installation files to the machine that hosts the Informatica instance you plan to upgrade.

To upgrade in silent mode, complete the following tasks:

1. Create the upgrade properties file and specify the upgrade options.
2. Run the installer with the upgrade properties file.
3. Secure the passwords in the upgrade properties file.

Complete Changing the Node Configuration

If you chose to change the node configuration during the domain upgrade because you migrated the Informatica services installation to a different machine, you must perform additional tasks before you upgrade the application services.

You must perform the following additional tasks:

1. Configure the environment variables.
2. Verify the range of dynamic port numbers.
3. Verify the location of the node backup directory.
4. Configure PowerExchange® adapters.

Note: If you chose to change the node configuration during the domain upgrade because you migrated the domain configuration repository to a different database, you do not need to perform additional tasks.

Clear the Browser Cache

Before you access the Administrator tool, clear the browser cache.

On Windows Internet Explorer, delete the browsing history, including temporary files, cookies, and history.

If you do not clear the browser cache, the previous Administrator tool URL is not redirected to the latest URL and some menu options may not appear.

Configure Locale Environment Variables

Use LANG, LC_CTYPE, or LC_ALL to set the UNIX code page.

Different UNIX operating systems require different values for the same locale. The value for the locale variable is case sensitive.

Use the following command to verify that the value for the locale environment variable is compatible with the language settings for the machine and the type of code page you want to use for the repository:

```
locale -a
```

The command returns the languages installed on the UNIX operating system and the existing locale settings.

Locale on Linux

All UNIX operating systems except Linux have a unique value for each locale. Linux allows different values to represent the same locale. For example, "utf8," "UTF-8," "UTF8," and "utf-8" represent the same locale on a Linux machine. Informatica requires that you use a specific value for each locale on a Linux machine. Make sure that you set the LANG environment variable appropriately for all Linux machines.

Locale for Oracle database clients

For Oracle database clients, set NLS_LANG to the locale that you want the database client and server to use with the login. A locale setting consists of the language, territory, and character set. The value of NLS_LANG depends on the configuration.

For example, if the value is american_america.UTF8, set the variable in a C shell with the following command:

```
setenv NLS_LANG american_america.UTF8
```

To read multibyte characters from the database, set the variable with the following command:

```
setenv NLS_LANG=american_america.AL32UTF8
```

You must set the correct variable on the Data Integration Service machine so that the Data Integration Service can read the Oracle data correctly.

Configure Library Path Environment Variables

Configure library path environment variables on the machines that run the Data Integration Service processes. The variable name and requirements depend on the platform and database.

Configure the LD_LIBRARY_PATH environment variable.

The following table describes the values that you set for the LD_LIBRARY_PATH for the different databases:

Database	Value
Oracle	<Database path>/lib
IBM DB2	<Database path>/lib
Sybase ASE	"${SYBASE_OCS}/lib:${SYBASE_ASE}/lib:${LD_LIBRARY_PATH}"
Teradata	<Database path>/lib
ODBC	<CLOSEDODBCHOME>/lib
PostgreSQL	$PGHOME/lib:$ {LD_LIBRARY_PATH}

Verify the Range of Dynamic Port Numbers

When you upgrade a migrated node, the upgrade wizard assigns a default range of port numbers that can be dynamically assigned to application service processes that run on the node.

The default range of dynamic port numbers is 6013 to 6113. Verify that the default range of port numbers are available on the machine that runs the new version of Informatica. If the range of port numbers are not available, use the Administrator tool to update the range. Configure the minimum and maximum dynamic port numbers for service processes in the **Advanced Properties** section of the node **Properties** view.

Verify the Node Backup Directory

Verify that the backup directory for the node is accessible by the machine that runs the new version of Informatica. In the Administrator tool, view the **Backup Directory** property in the **Advanced Properties** section of the node **Properties** view.

Configure PowerExchange Adapters

If your previous installation included PowerExchange adapters, configure the PowerExchange adapters on the machine that runs the upgraded version of Informatica. If the PowerExchange adapter has an installer, re-install the PowerExchange adapter.

CHAPTER 6

Application Service Upgrade

This chapter includes the following topics:

Application Service Upgrade Overview

Informatica services version that you upgrade from determines the application service upgrade process.

Informatica services versions require that you upgrade the application services. When you upgrade an application service, you must also upgrade the dependent services. When you upgrade an application service, the upgrade process upgrades the database contents of the databases associated with the service.

Use the service upgrade wizard, the actions menu of each service, or the command line to upgrade application services. The service upgrade wizard upgrades multiple services in the appropriate order and checks for dependencies. If you use the actions menu of each service or the command line to upgrade application services, you must upgrade the application services in the correct order and verify that you upgrade dependent services.

The privileges required to upgrade application services depend on the service.

Privileges to Upgrade Services

The privileges required to upgrade application services depend on the application service.

A user with the Administrator role on the domain can access the service upgrade wizard.

A user must have these roles, privileges, and permissions to upgrade the following application services:

Model Repository Service

To upgrade the Model Repository Service using the service upgrade wizard, a user must have the following credentials:

- Administrator role on the domain.
- Create, Edit, and Delete Projects privilege for the Model Repository Service and write permission on projects.

To upgrade the Model Repository Service from the Actions menu or from the command line, a user must have the following credentials:

- Manage Services privilege for the domain and permission on the Model Repository Service.
- Create, Edit, and Delete Projects privilege for the Model Repository Service and write permission on projects.

Data Integration Service

To upgrade the Data Integration Service, a user must have the Administrator role on the Data Integration Service.

Content Management Service

To upgrade the Content Management Service, a user must have the Administrator role on the Content Management Service.

Service Upgrade from Previous Versions

When you upgrade from a previous version, some application services require an upgrade. Upgrade the application services that you used in the previous version.

Verify that all application services are enabled.

To upgrade application services, upgrade the following services and associated databases in this order:

1. Model Repository Service
2. Data Integration Service
3. Profiling warehouse for the Data Integration Service

Note: When you upgrade all other application services, the upgrade process upgrades the database contents of the databases associated with the service.

Run the Upgrade Wizard

Use the service upgrade wizard to upgrade application services and the database contents of the databases associated with the services. The service upgrade wizard displays upgraded services in a list along with services and associated databases that require an upgrade. You can also save the current or previous upgrade report.

1. In the Informatica Administrator header area click **Manage** > **Upgrade**.
2. Select the application services and associated databases to upgrade.
3. Optionally, specify if you want to **Automatically recycle services after upgrade**.

   If you choose to automatically recycle application services after the upgrade, the upgrade wizard restarts the services after they have been upgraded.
4. Click **Next**.
5. If dependency errors exist, the **Dependency Errors** dialog box appears. Review the dependency errors and click **OK**. Then, resolve dependency errors and click **Next**.
6. Enter the repository login information.
7. Click **Next**.

The service upgrade wizard upgrades each application service and associated database and displays the status and processing details.

8. When the upgrade completes, the **Summary** section displays the list of application services and their upgrade status. Click each service to view the upgrade details in the **Service Details** section.

9. Optionally, click **Save Report** to save the upgrade details to a file.

    If you choose not to save the report, you can click **Save Previous Report** the next time you launch the service upgrade wizard.

10. Click **Close**.

11. If you did not choose to automatically recycle application services after the upgrade, restart the upgraded services.

You can view the upgrade report and save the upgrade report. The second time you run the service upgrade wizard, the Save Previous Report option appears in the service upgrade wizard. If you did not save the upgrade report after upgrading services, you can select this option to view or save the previous upgrade report.

Verify the Model Repository Service Upgrade

After you upgrade the Model Repository Service, check the Model Repository Service log to verify that the upgrade completed successfully.

Object Dependency Graph

When you upgrade a Model Repository Service, the upgrade process upgrades the contents of the Model repository and rebuilds the object dependency graph.

If the upgrade process encounters a fatal error while upgrading the Model repository contents, then the service upgrade fails. The Administrator tool or the command line program informs you that you must perform the upgrade again.

If the upgrade process encounters a fatal error while rebuilding the object dependency graph, then the upgrade of the service succeeds. You cannot view object dependencies in the Developer tool until you rebuild the object dependency graph.

After you upgrade the Model Repository Service, verify that the Model Repository Service log includes the following message:

```
MRS_50431 "Finished rebuilding the object dependency graph for project group '<project
group>'."
```

If the message does not exist in the log, run the infacmd mrs rebuildDependencyGraph command to rebuild the object dependency graph. Users must not access Model repository objects until the rebuild process completes, or the object dependency graph might not be accurate. Ask the users to log out of the Model Repository Service before service upgrade.

The infacmd mrs rebuildDependencyGraph command uses the following syntax:

```
rebuildDependencyGraph
<-DomainName|-dn> domain_name
[<-SecurityDomain|-sdn> security_domain]
<-UserName|-un> user_name
<-Password|-pd> password
<-ServiceName|-sn> service_name
[<-ResilienceTimeout|-re> timeout_period_in_seconds]
```

Advanced Properties for the Model Repository Service

You can configure the Maximum Heap Size and MaxMetaspaceSize values after Model Repository Service upgrade. Set the **-Xss** value before you upgrade the service. You need to reset the **-Xss** value after you upgrade the service.

Configure the following advanced properties for the Model Repository Service:

Maximum Heap Size

> Before the upgrade process, you can configure the **Maximum Heap Size** property value for the Model Repository Service to 4GB if the property value is lower than 4GB. After the upgrade, reset the property value to the previous value before the upgrade or to a value that Global Customer Support recommends for your environment.

JVM Command Line Options

> Configure the -Xss JVM command line option. Configure the **-Xss** value to 1m before you upgrade the Model Repository Service upgrade. After the upgrade, reset the **-Xss** option back to the value before upgrade. The default value is 512k.

To configure the advanced properties for a Model Repository Service, navigate to **Manage** > **Services and Nodes**, select a Model Repository Service, and edit the **Properties** > **Advanced Properties** section.

CHAPTER 7

Informatica Client Upgrade

This chapter includes the following topics:

Informatica Client Upgrade Overview

Use the client installer to upgrade a previous version of Informatica Developer. Informatica Developer is installed on the installation directory you specify. The client installer configures the newly installed Informatica Developer with the same settings as the previous version. The client installer does not modify the files of the previous version of the client tools.

Complete the pre-upgrade tasks before you start the upgrade. Run the installer on all machines that host previous versions of Informatica Developer that you want to upgrade. You can upgrade the Informatica clients in graphical or silent mode.

When you upgrade the Informatica client tools, the following components are also upgraded:

- DataDirect ODBC drivers
- Java Runtime Environment libraries

You can perform the upgrade from the root of the directory where you download the installation files.

Informatica Developer

Informatica Developer is a client application that you use to create and run mappings, data objects, and virtual databases. Objects created in Informatica Developer are stored in a Model repository and are run by a Data Integration Service. If you upgrade Informatica Developer, verify that the Informatica version, including the hotfix version, matches the version of the domain upgrade.

When you run the client installer, you can upgrade Informatica Developer.

The following entries describe the minimum system requirements to run the Informatica Developer:
Processor

Requires at least 1 CPU.

RAM

Requires at least 1 GB.

Disk Space

Requires at least 8.505 GB.

If you upgrade Informatica Developer, verify that the Informatica version exactly matches the version of the domain upgrade.

Verify Installer Package Checksum

Before you run the client installer, verify the install package integrity through the cksum command. The cksum command calculates the checksum value for the installer.

Verify the checksum for the specific installer files against the checksum of the installation files downloaded from the Informatica Electronic Software Download site.

The following table lists the checksum and file size for Informatica client on Windows:

File	Checksum Value	File Size
informatica_1053_client_winem-64t.zip	590321451	3139423400

A checksum mismatch can occur when there are data errors during download due to network issues or when data corruption occurs in the file on disk. For more information about the checksum errors, see HOW TO: Identify file errors after downloading Informatica installation files.

Informatica Client Upgrade Options

You can upgrade the Informatica client tools in one of the following ways:

- Upgrade in graphical mode. Upgrades the Informatica client tools in graphical mode. The installer guides you through the upgrade process.
- Upgrade in silent mode. Upgrades the Informatica client tools using a properties file that contains the upgrade options.

Profiles

After you upgrade, import the data domains for the profiles.

To add predefined data domain groups and related data domains to the data domain glossary, import the `Informatica_IDE_DataDomain.xml` file into the Developer tool using the **Windows > Preferences > Informatica > Data Domain Glossary > Import** menu option.

To view and make changes to rules associated with data domains, import the `Informatica_IDE_DataDomainRule.xml` file using the **File > Import** menu option in the Developer tool.

Upgrading in Silent Mode

To upgrade the Informatica client tools without user interaction, upgrade in silent mode. Use a properties file to specify the upgrade options. The installer reads the file to determine the upgrade options. You can use silent mode upgrade to upgrade the Informatica client tools on multiple machines on the network or to standardize the upgrade process across machines.

Copy the Informatica installation files to the hard disk on the machine that hosts the Informatica client you plan to upgrade.

To upgrade in silent mode, complete the following tasks:

1. Create the upgrade properties file and specify the upgrade options.
2. Run the installer with the upgrade properties file.

Creating the Properties File

Informatica provides a sample properties file that includes the upgrade parameters that are required by the installer. You can customize the sample properties file to specify the options for your upgrade.

The sample properties file is named SilentInput.properties and is located in the root of the client installer directory.

1. Go to the root of the directory that contains the client installation files.
2. Locate the file named SilentInput.properties.

    Back up the file before you modify it.
3. Use a text editor to open the file and modify the values of the upgrade parameters.

    The following table describes the upgrade parameters you can modify:

Property Name	Description
INSTALL_TYPE	Indicates whether to install or upgrade the Informatica client tools. To upgrade from a previous version of Informatica, set the value to 1.
USER_INSTALL_DIR	Directory in which to install the new version of the Informatica client tools.
UPG_BACKUP_DIR	Directory of the previous version of the Informatica tools that you want to upgrade.

Property Name	Description
INSTALL_HADOOP_LIBRARIES	Determines whether to install distribution packages through the installer. Set the value to true if you want to install distribution packages through the installer. Set the value to false if you don't need distribution packages or if you want to install them later.
SELECTED_HADOOP_LIBRARIES	Determines the distribution packages that you want to install from the supported packages list. Enter the distribution packages that you want to install, separating multiple packages with a comma.

4. Save the properties file.

Running the Silent Installer

After you create the properties file, open a command prompt to start the silent upgrade.

1. Open a command prompt.

2. Go to root of the client installer directory.

3. Verify that the directory contains the file SilentInput.properties with the upgrade options.

4. To start the silent upgrade process, run silentInstall.bat.

   The silent upgrade runs in the background. The process can take a while. The silent upgrade process is complete when the Informatica_<Version>_Client_InstallLog.log is created in the installation directory.

   The silent upgrade fails if you incorrectly configure the properties file or if the installation directory is not accessible. If the upgrade fails, view the installation log files and correct the errors. Then run the silent installer again.

5. After you complete an upgrade of Informatica Developer, log off the Windows machine and then log back on to complete the system configurations.

APPENDIX A

Upgrade Checklist

This appendix includes the following topics:

Upgrade Checklist Overview

The upgrade checklist summarizes the tasks that you must perform to complete an upgrade. If you upgrade the Informatica product on more than one machine, complete the first upgrade using the detailed instructions in this guide. You can use this checklist to perform subsequent upgrades.

Before You Upgrade the Domain

Before you upgrade the domain, perform the following pre-upgrade tasks:

❑ Read the Informatica Release Notes.

❑ Perform the following tasks to set up the machine to meet the operating system requirements:

- Verify that the machine has the required operating system patches and libraries.
- Verify that the machine meets the minimum system requirements to upgrade the domain.
- Verify that the machine meets the hardware requirements to upgrade the application services.
- Verify the distributions for the non-native environments.
- Review the environment variables.
- Review the maximum heap size setting.
- Extract the installer files.
- Run the Informatica Upgrade Advisor.

- Back up the configuration files.

❑ Back up the Data Transformation Files.

❑ Disable the Analyst Service through Administrator tool or through infacmd DisableService.

❑ Perform the following tasks to prepare the Model repository:

- Back up the Model repository.

- Verify the user account requirements for the Model repository database.

❑ Perform the following tasks to prepare the Data Integration Service:

- Record the execution options for each Data Integration Service process.

- Verify that all workflows are complete.

❑ Perform the following tasks to prepare the Reference Data Directories:

- Back up the reference data directory.

- Record the directory location.

❑ Use the native database back-up option to back up profiling warehouse, reference data warehouse, and workflow database.

❑ Perform the following tasks to prepare the domain:

- Verify database user account requirements.

- Shut down the domain. To shut down the domain, stop the Informatica service process on each node in the domain.

- Back up the domain.

❑ Prepare to change the node configuration.
Perform the additional pre-upgrade tasks if you choose to change the node configuration.

Domain Upgrade

Use the server installer to upgrade the domain. The server installer provides a domain upgrade wizard to guide you through the upgrade process.

The upgrade wizard installs the Informatica files in the installation directory that you specify. It does not modify the files in the directory of the previous version.

When you run the upgrade wizard, select the option to change the node configuration if you upgrade the domain to a different machine or to a different domain configuration repository database.

Before You Upgrade the Application Services

Before you upgrade application services, perform the following pre-upgrade tasks:

❑ Configure locale environment variables.
Verify that the locale setting is compatible with the code page for the repository.

❑ Clear the browser cache.

❑ If you chose the option to change the node configuration to migrate the Informatica installation to a different machine, perform the following tasks:

- Configure the environment variables.

- Configure Library Path Environment Variables.

- Verify the range of port numbers that can be dynamically assigned to application service processes that run on the node.

- Verify that the backup directory for the node is accessible by the node.

- Configure PowerExchange adapters. If the PowerExchange adapter has an installer, re-install the PowerExchange adapter.

Application Service Upgrade

Service versions require a service upgrade. You can use the service upgrade wizard to upgrade services.

❑ Verify the privileges required to upgrade for the following application services:

- Model Repository Service

- Data Integration Service

- Content Management Service

- Scheduler Service

- Analyst Service

❑ Upgrade the following services and associated databases:

- Model Repository Service

- Data Integration Service

- Profiling warehouse for the Data Integration Service

- Scheduler Service

- Analyst Service

❑ Run the Service Upgrade Wizard to upgrade application services and the database contents of the databases associated with the services.

❑ Verify the Model Repository Service upgrade.

- Object dependency graph.

- Maximum heap size

Informatica Client Upgrade

Use the client installer to upgrade the client tools. The client tools are installed in the installation directory you specify. The client installer configures the newly installed client tools with the same settings as the previous version.

After You Upgrade

After you upgrade the domain, application services, and client files, perform the following post-upgrade tasks:

❑ Perform the following tasks for profiles and scorecards:

- • Import data domain groups and related data domains to the data domain glossary. If you want to add predefined data domain groups and their related data domains to the data domain glossary, import the `Informatica_IDE_DataDomain.xml` file.

- • Run infacmd ps restoreProfilesAndScorecards command to restore the profiles and scorecards from a previous version to the current version.

- • Run the scorecards to view the statistics in the Cumulative Metrics Trend pane for the scorecards that you had created.

❑ Upgrade all your Microsoft SQL Server connections to use the ODBC provider type.

❑ Upgrade the Informatica drivers for SQL data service.

❑ Copy the Data Transformation files from the previous installation directories to the new installation directories, to get the same workspace, repository, and custom global components as in the previous version.

❑ Read *Informatica What's New and Changed* to view the list of new functionality that you might want to implement or new options that you might want to enable.

Managing Distribution Packages

This appendix includes the following topics:

Managing Distribution Packages Overview

You can use Integration Package Manager (the package manager) to install and remove distribution packages from the Informatica service and client machines.

A distribution package is a set of distribution binaries that you install within the domain for the following processing requirements:

- To push processing to the Hadoop or Databricks environment.
- To process complex files within the Informatica domain.
- To connect to the Hadoop or Databricks environment when you process within the Informatica domain.

You can install distribution packages if you didn't do so during the upgrade or install process or if you want to add a distribution package. You can remove a distribution package if you want to use a different package or if you installed a package that you don't use.

When you install or remove distribution packages, verify that you perform the operation on all service and client machines.

Before You Begin

Before you run the package manager, perform tasks such as setting environment variables and downloading files.

1. Shut down the Informatica services.

2. Set one of the following environment variables:

Variable	Description
INFA_JDK_HOME	Location of the folder containing the supported Java Development Kit (JDK). Set the INFA_JDK_HOME environment variable in the following scenarios: - Informatica domain is on Windows or Linux - Informatica client
INFA_JRE_HOME	Location of the folder containing the supported Java Runtime Environment (JRE). If the Informatica domain is on AIX, set the INFA_JRE_HOME environment variable.

3. Verify that the user that runs the package manager has read and write permissions on the Informatica installation directory and execute permissions on the executable file.

4. Download the following files from the Informatica Electronic Software Download site:
    - Integration Package Manager
    - Distribution packages

5. Extract the Integration Package Manager ZIP files to a local drive.

6. Copy the ZIP files of distribution packages that you need to the following location: `<Integration Package Manager directory>/source`

    Note: The package manager fails if the ZIP files for distribution packages aren't available in the source directory.

Install or Remove Distribution Packages in Console Mode

You can run the package manager in console mode to install or remove distribution packages.

1. From the package manager directory, run one of the following commands:
    - `./Server.sh console` for Linux or UNIX
    - `Server.bat console` for Windows
    - `Client.bat console` for client

    Note: To run the command on Windows, use the administrator command prompt.

2. Enter the installation directory of the services or client and press **Enter**.

3. Choose the operation type and press **Enter**.
    - Select 1 to remove existing distribution packages.
    - Select 2 to install one or more distribution packages.

    The console lists the distribution packages that you can install or remove.

4. Enter the distribution packages that you want to install or remove, separating multiple packages with a comma, and press **Enter**.

5. Verify the installation or removal status in the package manager log file.

    You can find the log file in the following location: `<Integration Package Manager directory>/ IntegrationPackageManager_<date and timestamp>.log`

Install or Remove Distribution Packages in Silent Mode

You can run the package manager in silent mode to install or remove distribution packages. The silent input properties file contains the properties for the package manager to run in silent mode for service and clients. Set the appropriate value for each property in the file.

1. Find the IntegrationPackageManager.properties file in the following location: `<Integration Package Manager directory>/`

2. Edit the properties file in a text editor.

   The following table describes the properties that you can modify:

Property Name	Description
USER_INSTALL_DIR	The installation directory of the service or client.
OPERATION_TYPE	The operation that you want to perform: - Set to DELETE to remove existing distribution packages. - Set to EXTRACT to install one or more distribution packages.
SELECTED_HADOOP_LIBRARIES	Lists the distribution packages and versions. Enter the distribution packages that you want to install or remove. Separate multiple packages with a comma.

3. Save the properties file.

4. From the package manager directory, run one of the following commands:

   - `./Server.sh silent` for Linux or UNIX
   - `Server.bat silent` for Windows
   - `Client.bat silent` for client

   Note: To run the command on Windows, use the administrator command prompt.

5. Verify the installation or removal status in the package manager log file.

   You can find the log file in the following location: `<Integration Package Manager directory>/ IntegrationPackageManager_<date and timestamp>.log`

After You Install

To use the distribution packages that are installed using the package manager, configure the property or environment variable in service and client machines.

Configure the Developer Tool

After you install the distribution packages in the Developer tool, update the developerCore.ini file with the installed distribution package.

1. Find the developerCore.ini file in the following location: `<Informatica installation directory> \clients\DeveloperClient`

2. Edit the file to update the following property:

    ```
    -DINFA_HADOOP_DIST_DIR=hadoop\<Hadoop distribution name>_<version>
    ```

    For example,

    ```
    -DINFA_HADOOP_DIST_DIR=hadoop\CDH_7.1
    ```

3. Restart the Developer tool.

Configure Environment Variables

Some adapters require environment variables for the Data Integration Service and Metadata Access Service to access the distribution packages. For more information, see Configure environment variables to process complex files.

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