



Informatica® Cloud Data Integration for
PowerCenter

May 2024

Domain Updates

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Table of Contents

- Preface 4**
- Chapter 1: Domain updates..... 5**
 - Domain updates in multi-node setups. 6
 - Schedule an update. 7
 - Updating a domain. 7
 - Update the configuration files. 9
 - Restart a failed update. 9
 - Troubleshooting update issues. 10
 - Troubleshooting Listener Service issues. 11

Preface

Read *Domain Updates* to learn how to update your CDI-PC domain. Learn how to apply and schedule updates and to monitor the status of updates.

CHAPTER 1

Domain updates

You can update a domain from the CDI-PC service page. Updates can include new features, security patches, and EBFs. Updates might be mandatory or optional. Some updates can be applied only if the domain is on a specific version or above. You can choose to initiate an update or to schedule the update to run at an appropriate time.

Domain updates are automated. After you initiate or schedule it, you don't need to perform any manual tasks such as shutting down the domain or downloading and running the installer. The CDI-PC service handles all tasks required to apply the update including shutting down the domain before and starting the domain after the update.

The domain information indicates whether an update is available for the domain. Multiple mandatory and optional updates might be available at a given point. The details include the due date by which a mandatory update must be applied. Before you initiate or schedule an update, ensure that your domain is on at least the minimum required version to apply the update.

Note: Mandatory updates must be applied by the due date. Domains that you don't update by the due date are marked obsolete.

Obsolete indicates that the domain is on an outdated version. You can't run jobs or perform tasks on an obsolete domain. You can't update an obsolete domain from Informatica Intelligent Cloud Services. To update an obsolete domain, contact Informatica Global Customer Support.

You can schedule an update to run at a date and time of your choice. For mandatory updates, the due date is the latest by which the update must be applied. You can't schedule a date beyond it. You can also manually initiate an update job and track the job progress.

Update stages

Updates include multiple stages. Each stage includes specific tasks that need to be completed successfully before the next stage begins. You can view the progress of the update from the **Update Tracker**. After the update is applied, the domain starts and services return to the state they were in prior to update. You can view the update history of a domain from the **View Update Details** page.

Note: If you deregister a domain, all update history and update plans of the domain get deleted. If you register the domain again, you can't view previous update history or plans that were created before deregistration.

The following table lists the stages that the update job includes:

Stage	Description
Prepare for update	The Domain Management Service connects to the on-premises domain, downloads installer binaries and packages for the update to the Secure Agent machine, and updates third-party binaries. The Secure Agent then downloads the files to each node in the domain. The installer files are downloaded to the following location on each node: <CDI-PC installation directory>/Informatica/platform/sys/data/downloads/<update version number>/ The installer files get extracted to the following location on each node: <CDI-PC installation directory>/Informatica/platform/sys/data/installer
Begin update	The service process connects to the on-premises domain to start the update. For multi-node domains, the domain is shut down.
Updating	Performs update tasks including domain shutdown for single node domains, backup of domain binaries, update application, and domain startup. The domain binaries are backed up to the following location: <CDI-PC installation directory>/Informatica/platform/sys/data/backup The backup includes only the domain binaries that are modified during the update.
Clean-up	Deletes temporary files created during each stage of the update.
Finalize	The service process that performs the update is stopped.

Note: Do not edit or delete files in the following location: <CDI-PC installation directory>/Informatica/platform/sys/data

An update requires additional disk space on the node. In the preparation stage, the job verifies that the node has a minimum of 10 GB disk space available. If not available, it generates an error and the update fails.

If the update fails at any stage, check the log messages to find the cause of the failure. You can troubleshoot and then restart the update.

Domain updates in multi-node setups

In a multi-node setup, an update job applies the update to nodes in the domain in a sequence. The sequence begins with the master gateway node. The Domain Management Service prepares the update plan that determines the sequence in which nodes are updated.

If you initiate the update, the Domain Management Service refreshes the update plan when you click **Update**. If you schedule the update to run at a later date and time, the Domain Management Service refreshes the update plan at the scheduled date and time. The plan includes all available nodes in the domain at the time it is refreshed. If the domain includes nodes that are offline when the update plan refreshes, they don't get included in the update plan. The update plan doesn't refresh after the update begins. Even if the node starts and becomes available, you can't include it in the update. You must manually update such nodes to ensure they are on the same version as other nodes in the domain. Contact Informatica Global Customer Support for information about how to manually update a node.

The update begins at the same time on all nodes in the domain. After download of binaries or the Prepare for update stage, the other nodes pause the update while the update continues on the master node. When the master node reaches the Clean-up stage, the other nodes continue the update and the update on these nodes progresses simultaneously. The update summary or status updates when the update is complete on all nodes in the domain update plan.

If the master node fails to start after the update is applied, a second gateway node becomes the master. However, the update job retains the initial master node information and waits for the node to start. The update therefore doesn't continue on other nodes until the initial master gateway node starts. Failure in other nodes doesn't impact the overall update job. If one node fails, the update continues on other nodes.

Schedule an update

You can schedule the update to run at an appropriate date and time. You can change or delete the schedule after you set it. For mandatory updates, the scheduled date and time must be before the due date. You can schedule one update at a time.

1. On the **Domain Details** page, click **View Update Plan**.
2. On the **Update Domain** page that opens, click **Schedule Update**.
3. On the **Set Update Schedule** window, choose the time zone that applies to the domain.
4. Select a date.
For mandatory updates, dates after the due date appear unavailable.
5. Choose a time to start the update job.
You can choose from a range of times at 30-minute intervals.
6. Click **Set Schedule** to confirm the schedule.
The update status on the **Domain Details** page changes to **Update Scheduled**. If you previously scheduled another update, it gets cancelled.
7. To modify the schedule, you can repeat the steps and change the date and time.
8. To delete a schedule, select **Reset to Default** and click **Set Schedule**.
The update status on the **Domain Details** page changes to **Update Available**.

Updating a domain

You can choose to schedule the update or manually initiate a domain update from the **Domain Details** page. Don't edit the details of a domain after you initiate an update. The update fails when you shut down the domain to edit the details. If you retry the update, it fails because of a mismatch in domain details. Editing the domain details on the CDI-PC service page does not resolve the mismatch.

Ensure that there are no jobs in progress before you start the update. Because a domain goes offline during update, running jobs might be impacted.

Before starting the domain update, disable the custom scripts that are used to start and monitor the CDI-PC domain. Otherwise unexpected errors might occur during or after the update process.

1. On the **Explore** page, select a domain to open the **Domain Details** page.
The **Version and Update** section indicates whether an update is available.
2. Click **View Update Plan**.
3. On the **Update Domain** page, click **Update Domain** to start the update.
4. On the confirmation message that appears, click **Update Domain** to confirm.
5. Enter the domain credentials and click **Update Domain**.

A message appears to indicate that the update started. The update job shuts down the domain, applies the update, and then starts the domain and application services.

The **Update Domain** page tracks the status of each stage of the update.

- You can refresh the information in the **Nodes** table to view updated information.

When the update completes, the domain status moves to Available and the version number updates to the latest update.

If the update fails, the domain status that appears depends on the point at which the update fails. If the update fails before the domain is shut down, the status indicates that the domain is available and the update failed. If it fails after the domain is shut down, the status indicates that the domain is offline and the update failed.

The following image shows the **Update Domain** page when the update completes successfully:

Update Domain The domain is successfully updated to 202404. X

Updated to Version: 202404 Completed successfully 100%

Nodes **Services**

Nodes (3/3)

Name ↑	Prepare for Update	Begin Update	Updating	Clean-up	Finalize	Final Status
node04 (Master Gateway)	✓	✓	✓	✓	✓	✓
node01 (Gateway)	✓	✓	✓	✓	✓	✓
node03 (Worker)	✓	✓	✓	✓	✓	✓

Update States

In Queue
In Progress
Successful
Failed
Suspended/Standby
Restart
Non-critical Failure
NA Not Applicable

Notes:

- Before you initiate or retry an update, ensure that the nodes are available. You should not start or stop the domain, nodes or services manually.
- After the update begins, don't manually start or stop the domain, nodes, or services, unless asked to by the Informatica Support team.
- When you start the domain update, all existing service jobs are terminated. You cannot cancel, pause, or stop the update after you start.
- The status information on the Services tab updates after the domain update completes.
- Non-critical failures do not affect the overall update status of the domain.
- Failures in the Clean-up and Finalize stages are non critical. You can ignore the errors and use the domain when the update completes.

If the update fails in the clean-up or finalize stages, the job generates a warning and continues. Warnings generated in these stages don't impact the update job or the status of the domain. You can continue to use the domain when the update completes.

When the update completes, services return to the state they were in prior to the update. For services that were in the Available state when the update began, the job checks for the status post update. If there is a difference in the status before and at the end of the update, the update job tries to match the service states. The **Services** table refreshes and indicates if there is a mismatch in the state of a service.

After the update completes, the assigned permissions in the `pmimpprocess` executable changes.

Configure the `pmimpprocess` executable to change the ownership and access permissions required for each user.

The Secure Agent, CloudConnect, and task output log files record corresponding tasks that are performed to complete the update. When a node successfully updates, the following log file is generated on the node:

```
<CDI-PC installation directory>/Informatica/platform/logs/installer/<version>/
Informatica_CDIPC_Services_Update_Platform_Apply_<timestamp>_Install.log
```

Update the configuration files

When you update, the installer overwrites configuration files, such as `odbc.ini`, `odbcinst.ini`, or `sapnwrfc.ini`. If any of the configuration files contain customization, updated, or new properties, you can manually merge the changes from the backup files into the latest installed file. For instance, if `odbc.ini` contains some variables or connection options, you need to manually merge the changes to the latest install file paths.

Manually merge the latest configuration changes into the following install file paths after you update:

```
$INFA_HOME/ODBC7.1/odbc.ini  
$INFA_HOME/ODBC7.1/odbcinst.ini  
$INFA_HOME/server/bin/sapnwrfc.ini
```

Here, `$INFA_HOME` denotes `<install_dir>/Informatica/platform/home` and `$INFA_HOME/ODBC7.1` is a softlink for `<install_dir>/Informatica/platform/usr/bin/ODBC7.1`.

The backup files are available in the following location: `<install_dir>/Informatica/platform/sys/data/backup/<release_version>/PLATFORM/home`

The following table lists examples of configuration files and their corresponding backup files:

Sample configuration file	Backup file	File to be updated
<code>odbc.ini</code>	<code><install_dir>/Informatica/platform/sys/data/backup/202404/PLATFORM/home/ODBC7.1/odbc.ini_202404_<DateTime of Backup></code>	<code><install_dir>/Informatica/platform/usr/bin/ODBC7.1/odbc.ini</code>
<code>sapnwrfc.ini</code>	<code><install_dir>/Informatica/platform/sys/data/backup/202404/PLATFORM/home/server/bin/sapnwrfc.ini_202404_<DateTime of Backup></code>	<code><install_dir>/Informatica/platform/home/server/bin/sapnwrfc.ini</code>

Use script files to set environment variables for `infaservice` and `infasetup` commands. If you added custom configuration values in your Informatica domain, copy those values to the corresponding script file before performing an update.

You can find the script files, `infasetupconfig.sh` and `infaserviceconfig.sh`, in the following location:

```
<CDI-PC installation directory>/Informatica/platform/usr/bin/
```

Note: Any values that you edit in the `infasetup.sh` and `infaservice.sh` files might be overwritten when you apply updates.

Restart a failed update

The update job goes through multiple stages to complete the update. You can monitor the progress of the update on the **Update Domain** page. If the update fails at any stage, you can retry the update.

On the Update Domain page, click **Retry Update** in the **Final Status** column.

A retry might fail if there is a mismatch between the domain status required to restart the update and the actual domain status. View the logs for information on the failure and troubleshoot the issue before you retry the update.

Troubleshooting update issues

A domain update can fail due to multiple reasons. View the error logs and correct the issue before you retry the update.

The update fails with unrelated error messages even after multiple restarts.

An update might fail at any stage and generate an error message. When you correct the issue mentioned and restart the update, the update fails again with an error message.

To correct the issue, perform the following tasks:

1. Verify the node status on the CDI-PC Home page.
2. If the node is unavailable, run the `infaservice start` command.
3. When the node is available, restart the update.

The node update appears as successful but the Clean-up stage generates a warning.

If you change port numbers or make other changes to a domain during an update, the update might complete but generate warnings.

You can ignore clean-up and finalize stage warnings if the node update is successful. To avoid such errors, don't make domain changes during updates. Domain changes can include changes to port numbers, domain name, and addition or removal of nodes.

Update fails during the Download stage with a certificate error in the taskoutput log file.

To enable communication between the Secure Agent and the domain, both the truststore certificates must be shared and available. If the update fails during the download stage because of a certificate error, the domain truststore and Secure Agent truststore certificates might not be exchanged. You see the following error:

```
Please check the host, port and TLS configurations. Error:
[javax.net.ssl.SSLHandshakeException: PKIX path building failed:
sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid
certification path to requested target]
```

Verify that the Secure Agent contains the domain truststore and that the domain certificates folder contains the Secure Agent certificate. See *Cloud Data Integration for PowerCenter Installation* for information. Stop all running processes associated with the domain and then retry the update.

Update fails at the Initialize stage and the page becomes unresponsive

The update fails and the page becomes unresponsive when the required amount of disk space is not available on the node. You see the following error in the CloudConnect logs: [CloudConn_10010] Received launcher response: [mkdir: cannot create directory â/data/cdipc/Informatica/<XYZ>_UI_Diskspace/productx/sys/apps/listener/202304.<Version>.1/./tmpâ: No space left on device.

Create the required amount of disk space and retry the update.

Retry update fails in the Download stage.

The update fails and you can't restart the update if the Listener service is suspended.

Run the `dmlistenerlauncher` script to stop the Listener. Then retry the update. The `dmlistenerlauncher` script is stored in the following location: <Installation directory>/Informatica/platform/sys/apps/listener/<current version number>

To run the script, enter: `./dmlistenerlauncher.sh stop`

The `INFA_HOME` variable must be set to run the script.

The CDI-PC Integration Service does not get enabled after an update successfully completes.

The CDI-PC Integration Service might take some time to start or might fail to start after an update completes.

Restart the service if the service does not get enabled.

For information about troubleshooting other CDI-PC issues, see the *Troubleshooting* document.

Troubleshooting Listener Service issues

The Listener is a process that runs as an extension to each node in a domain. The Domain Management Service communicates with a node to start the Listener Service on the node to perform tasks related to updates.

The Listener Service starts and stops multiple times during an update until it shuts down when the update is complete. The Listener Launcher Service starts and stops the Listener Service.

During an update, the Listener Service might become unresponsive and fail to start or stop. This impacts the progress of the update task. You might see an error message that prompts you to check the CloudConnect logs. Check the CloudConnect Logs and Launcher logs to view the status of the Listener Service.

If you see a message related to the slowness or unresponsive state of the Listener Service, and the domain is stopped, perform the following tasks:

1. Run the `./dmlistenerlauncher.sh stop` command to stop the Listener Service. The command stops the Listener Service if it exists.
The launcher script is available in the following directory: `<Installation directory>/Informatica/platform/sys/apps/listener/<current version number>`.
2. If the command generates an error, or does not indicate a successful stop of the service, verify the status of the service from the log files in the following location: `<Installation directory>/Informatica/platform/logs/listener/DMListenerLauncherLogs/`
Review the logs for the date when you initiated the update. A "Listener might be running slow or hung." message indicates that the Listener Service still exists and is in a non-responsive state.
3. Perform a forced stop of the Listener process.
Run the command with the following syntax: `kill -9 <PID>` where PID refers to the Listener Service process ID.
4. Delete the temporary files in the following location: `<Installation directory>/Informatica/platform/sys/apps/listener/tmp/`
5. Verify the domain status. Start the domain if it is stopped.
6. Restart the update. The domain must be available when you start the update.