



Informatica® Data Integration Hub  
10.4.0

# Release Guide

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# Preface

The *Data Integration Hub Release Guide* is written for administrators who are responsible for installing and configuring Data Integration Hub and developers and software engineers who implement Data Integration Hub. This guide assumes that you have knowledge of the features for which you are responsible. It lists new features and enhancements, behavior changes between versions, and tasks you might need to perform after you upgrade from a previous version.

## 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.

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

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

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## 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>.

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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.

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

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

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

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

# CHAPTER 1

## Version 10.4.0

This chapter includes the following topics:

- [New Features and Enhancements, 7](#)
- [Changes, 8](#)

## New Features and Enhancements

This section lists the new features and enhancements in Data Integration Hub 10.4.0.

### Topic Tags

You can assign tags to topics to easily filter associated topics on the **Topics** page and the **Catalog** page.

For more information, see the "Topic Properties" chapter in the *Data Integration Hub 10.4.0 Operator Guide*.

### Add Topic Tables from a Metadata File

When you define the topic structure for a publication repository on a relational database or a Hadoop repository, you can add topic tables from a metadata file. Data Integration Hub supports JSON, XLS, XLSX, and XML file formats. When you use a metadata file to create a topic table, you can define table attributes in the file before you load it to Data Integration Hub.

For more information, see the "Topics" chapter in the *Data Integration Hub 10.4.0 Operator Guide*.

### Duplicate Entities

You can duplicate topics, publications, and subscriptions. When you duplicate an entity, Data Integration Hub creates a new entity with a different name and with the same properties as the source entity.

For more information, see the *Data Integration Hub 10.4.0 Operator Guide*.

### Export and Import

You can export and import Data Integration Hub entities in the Operation Console, including applications, topics, publications, subscriptions, connections, workflows, and monitoring rules.

For more information, see the "Export and Import" chapter in the *Data Integration Hub 10.4.0 Developer Guide*.

If, in previous releases, you used the import and export utility to import and export objects, you can continue to do so in Data Integration Hub 10.4.0.

## Define Workflow Permissions

When you create or edit a Data Integration Hub workflow, you can select categories for the workflow.

If you select categories for a workflow, only users that belong to user groups that have at least one of the categories that you select have permissions for the workflow. If you don't select categories for a workflow, all users have permissions for the workflow.

For more information, see the "Data Integration Hub Workflows" chapter in the *Data Integration Hub 10.4.0 Developer Guide*.

## Subscription Scheduler Frequency

When you run a subscription according to a defined schedule, you can set the time-interval to 2, 3, and 4 minutes.

For more information, see the "Subscription Properties" chapter in the *Data Integration Hub 10.4.0 Operator Guide*.

## PowerCenter Workflow and Mappings

The size of the PowerCenter workflows and mappings you use to create Data Integration Hub workflow has increased from 10MB to 20MB.

For more information, see the "PowerCenter Mappings and Workflows" chapter in the *Data Integration Hub 10.4.0 Developer Guide*.

# Changes

This section lists changes in Data Integration Hub 10.4.0.

### **Compound subscriptions**

The time to wait from the time the first topic is ready to consume until all mandatory topics are ready to consume is specified in minutes.

Previously, the wait time was specified in hours.



# CHAPTER 2

## Version 10.2.4

This chapter includes the following topic:

- [New Features and Enhancements, 9](#)

## New Features and Enhancements

This section lists the new features and enhancements in Data Integration Hub 10.2.4.

### Big Data

#### **Data Integration Hub Topic Table Data Structure**

When an operator imports tables from an Enterprise Data Catalog resource, the Data Integration Hub derives the canonical data structure of the topic table from the data structure of the Enterprise Data Catalog resource.

Previously, Data Integration Hub read all data as string when the operator imported a table from an Enterprise Data Catalog resource to Data Integration Hub.

#### **Support to Apache Kafka in the Data Integration Hub lineage**

The Data Integration Hub lineage displays the flow of data for Apache Kafka topics and custom pass-through Kafka publications and subscriptions in the Enterprise Data Catalog user interface.

### ODBC Connections to Relational Databases

A Data Integration Hub administrator can create ODBC connections to connect to relational databases except for the following databases: Microsoft SQL Server, Oracle, IBM DB2, and PostgreSQL. An ODBC connection type connects to databases through ODBC. For example, create an ODBC connection to a MySQL database.

A Data Integration Hub operator can use the ODBC connection as a publication source connection, as a subscription target connection, and to add topic tables from the database.

### Publications and subscriptions

#### **Create Target Tables**

When creating an automatic relational database subscription, the Data Integration Hub operator can configure the subscription to create target tables if the target tables do not exist.

Data Integration Hub can create target tables for relational databases that it connects to through native drivers. It cannot create target tables if it connects to the database through a custom connection.

#### **Multi latency Publications**

The Data Integration Hub operator can publish data from a PowerCenter real-time mapping that uses Apache Kafka to Data Integration Hub using the PowerCenter real-time workflow.

# CHAPTER 3

## Version 10.2.3

This chapter includes the following topics:

- [New Features and Enhancements, 11](#)
- [Changes, 13](#)

## New Features and Enhancements

This section lists the new features and enhancements in Data Integration Hub 10.2.3.

### Big Data

#### **Integration with Informatica Enterprise Catalog**

The Data Integration Hub operator can add topic tables from Enterprise Data Catalog assets.

To add topic tables from Enterprise Data Catalog assets, Data Integration Hub administrator must configure Enterprise Data Catalog system properties in Data Integration Hub.

### Data Integration Hub Workflows

#### **Big Data Management Workflows**

Data Integration Hub developer develops big data management workflows by using the developer tool. The Data Integration Hub administrator creates big data management workflows for publications and subscriptions by using multiple big data management mappings.

#### **Data Quality Workflows**

Data Integration Hub developer develops data quality workflows by using the developer tool. The Data Integration Hub administrator creates data quality workflows for publications and subscriptions by using multiple big data management mappings.

### Entity Management

#### **Bulk Deletion**

The Data Integration Hub administrator can perform delete operations for multiple entities by using CLIs. The Data Integration Hub operator can delete Data Integration Hub entities such as application, publications, subscriptions, workflows, topics, and connections. If there are multiple entities, then The

Data Integration Hub administrator can delete Data Integration Hub entities in a bulk instead of deleting entities one after the other.

#### Entity Names

The Data Integration Hub users can create names of entities such as applications, connections, publications, subscriptions, and workflows with a maximum of 64 characters. Topic names can contain a maximum of 48 characters.

## Events

The Data Integration Hub administrator can create a monitoring rule for system events.

## Hub Overview

The Data Integration Hub operation console home page displays a Hub Overview diagram. The Hub Overview diagram provides a visual overview of the existing entities, grouped into categories.

#### Hub Overview

The Hub overview view in the Hub Overview diagram displays all entities including topics, related applications, publications, and subscriptions that are configured in The Data Integration Hub .

#### Search a topic in the Hub Overview Diagram

To search topics in the Hub Overview diagram, click the Find Topic button and enter the name of the topic. Topics that match the search criteria and its related entities are displayed in Hub Overview diagram.

#### Edit wizard of entities from Hub Overview diagram

Click any entity in the drill down view of the Hub Overview diagram. The edit window of the selected entity displays.

## Monitoring and Tracking

The Data Integration Hub administrator can monitor system events by creating a monitoring rule with an event type of system.

## Publications and Subscriptions

#### Search

The search field in the Publication and the Subscription tabs of the Applications menu in the Data Integration Hub console enables Data Integration Hub operator to search and filter names of publications and subscriptions respectively.

- The **Reload Default Search Results** button, clears search results and displays the list of publications. The **Refresh Search Results** button, updates search results.

#### Compound subscription

Data Integration Hub operator enables the mandatory option in a compound subscription to prioritize a few topics in the compound subscription over other topics. Data Integration Hub triggers a processing of subscription after the publication event for all topics are completed. If the wait time of the publication event is complete and Data Integration Hub has not published all mandatory topics, an error event is generated during run-time.

# Changes

This section lists changes in Data Integration Hub 10.2.3.

## Hub overview

Default view option for the Hub Overview is changed from **Hub Overview** to **Most used topics (<number of topics>)**. For example: **Most used topics (25)**.

## Online help documentation

By default online help documented is displayed as hosted help.

# CHAPTER 4

## Version 10.2.2

This chapter includes the following topics:

- [New Features and Enhancements, 14](#)
- [Changes, 15](#)

## New Features and Enhancements

This section lists the new features and enhancements in Data Integration Hub 10.2.2.

### Big Data

#### **Integration with Informatica Enterprise Catalog**

Data Integration Hub leverages Informatica Enterprise Catalog to classify and organize data assets such as topics, publications, and subscriptions.

### Topic Management

#### **Real-time topic**

Use a topic with a real-time publication repository to monitor real-time Apache Kafka data streams.

#### **Column- and row-level masking**

Apply security policies to topic table fields by creating permission-based masking rules.

### Publications and Subscriptions

#### **Publish data and subscribe to data over REST APIs with data-driven publications and subscriptions**

Data Integration Hub runs automatic, data-driven publications as data arrives, without a predefined schedule. Data Integration Hub published the data as-is, without processing it.

Data Integration Hub runs automatic, data-driven subscriptions as data is published to the publication repository, without a predefined schedule.

#### **Publish data streams with Big Data Streaming mappings**

Publish data at a low frequency with a Big Data Streaming real-time mapping.

**Publish and subscribe to data streams via Apache Kafka**

Publish data streams from Apache Kafka with custom pass-through Kafka publications. Consume data streams into Apache Kafka with custom pass-through Kafka subscriptions.

**Publication and subscription retry policy**

For automatic file publications and for automatic subscriptions that are triggered by Data Integration Hub, you can define a retry policy. A retry policy defines the number of times Data Integration Hub retries to run the publication or subscription in case of failure, and the retry interval. The policy does not apply to publications and subscriptions that you run manually.

## Connectivity to Informatica Intelligent Cloud Services

Data Integration Hub uses Informatica Intelligent Cloud Services mappings and tasks in cloud publications and subscriptions.

## Changes

This section lists changes in Data Integration Hub 10.2.2.

### Creating Topics, Publications, and Subscriptions

Access to the topic, publication, and subscription wizards and pages is from a page where you select the type of asset you want to create.

### Modular Cloud Publications and Subscriptions

Custom cloud publications and subscriptions are renamed to modular publications and subscriptions, respectively.

### Multi-latency Publications

Custom real-time publications are renamed to multi-latency publications.

# CHAPTER 5

## Version 10.2.1

This chapter includes the following topics:

- [New Features and Enhancements, 16](#)
- [Changes, 17](#)

## New Features and Enhancements

This section lists the new features and enhancements in Data Integration Hub 10.2.1.

### Repositories

On Linux, you can use SQL repositories installed on Windows as the Data Integration Hub and publication repositories. This option is applicable to systems running PowerCenter® version 10 or higher.

### Topic Management

#### **User Defined Topic Table Names**

When you create a topic table, Data Integration Hub assigns the table a physical name based on the logical name that you enter. You can edit the automatically generated name before you save the table to the database.

#### **User Defined Topic Table Column Names**

When you create a topic table, Data Integration Hub assigns each column in the table a logical name and a physical name. For topics that use a relational database or a Hadoop publication repository, you can edit the automatically generated names before you save the table to the database.

#### **Topic Table Relations**

You can define relations between topic tables, to filter the data that automatic database and flat file subscriptions consume from the topic.

#### **Add Topic Table and Column Descriptions**

When you create a topic table, you can add a description of the table. For topics that use a relational database or a Hadoop publication repository, you can add a description to each table column.



### Topic Delta Detection

When you apply delta detection to a topic table for which a primary key is defined, each time a publication publishes to the topic, Data Integration Hub detects the delta between the current publication event and the previous publication event. Data Integration Hub applies the detected delta to automatic database subscriptions that are configured with the delivery option **Insert new rows and update changed rows**.

## Publications and Subscriptions

### Delete data on target in automatic database subscriptions

You can select to delete rows that don't exist in the topic from the target for automatic database subscriptions when one of the following conditions exist:

- The type of topic to which the subscription subscribes is Full, and the subscription delivery option is **Insert new rows and update changed rows**.
- The subscription is an unbound subscription with the delivery option **Insert new rows and update changed rows**.

### Add expressions to fields in automatic database and flat file publications and subscriptions

Access the **Expression Editor** to select fields and functions to add to topic table fields.

### Publish from and subscribe to cloud-based applications with Informatica Cloud mappings

Use Data Integration Hub automatic cloud mappings to publish and subscribe to data from cloud-based applications with Informatica Cloud mappings.

## Connectivity to Informatica Cloud®

Use Data Integration Hub cloud connectivity system properties to configure an HTTP/HTTPS proxy server to connect to the Informatica Cloud server.

## Changes

This section lists changes in Data Integration Hub 10.2.1.

### Topic Filter Accelerators

Defining a topic table column as a filter accelerator has been moved from the table structure definition to the table relations definition.

### Publication and Subscription Wizards

In the publication and subscription wizards, the **Mapping** tab is renamed to **Processing**.

# CHAPTER 6

## Version 10.2

This chapter includes the following topics:

- [New Features and Enhancements, 18](#)
- [Changes, 19](#)

## New Features and Enhancements

This section lists the new features and enhancements in Data Integration Hub 10.2.

### Publications and Subscriptions

#### **Join source files in automatic flat file publications**

Pull data from multiple source files into a single topic table by creating a join. You can create multiple joins, and you can combine data from joins into new joins.

#### **Join topic tables in automatic database and flat file subscriptions**

Pull data from multiple topic tables into a single target table by creating a join. You can create multiple joins, and you can combine data from joins into new joins.

#### **Filter the data to publish in automatic database and flat file publications**

When you create an automatic database or flat file publication, you can define the conditions to filter rows. Data Integration Hub uses the definitions when creating the automatic mapping for the publication.

#### **Enhanced file transfer support**

Extend file transfer support to include the FTP and FTPS protocols.

#### **Subscription post-processing for on-premises subscriptions**

When a process has to run on data after the subscription, you can run both the subscription process and the subscription post-process from Data Integration Hub.

Data Integration Hub triggers the post-process after the subscription process runs. You can select whether or not to run the post-process if the subscription process fails. You can trace the end-to-end subscription process, including both the subscription and the post-process.

#### **Schedule a publication or a subscription to run after a selected publication or subscription runs**

A scheduling option for all publication and subscription types, with the exception of publications with real-time workflows, that runs the publication or the subscription immediately after the run of a specific publication or subscription is complete.

## Changes

This section lists changes in Data Integration Hub 10.2.

#### **"Update Else Insert" Delivery Option in Automatic Relational Database Subscriptions**

The option **Apply "Update else insert" to the PowerCenter workflow** is renamed to **Insert new rows and update remaining rows**. A new option is added, **Insert new rows and update changed rows**. When you select the new option, Data Integration Hub ignores unchanged rows. It inserts new rows and then updates changed rows that exist in the target. Updating only changed rows slows down system performance.

# CHAPTER 7

## Version 10.1.1

This chapter includes the following topic:

- [New Features and Enhancements, 20](#)

## New Features and Enhancements

This section lists the new features and enhancements in Data Integration Hub 10.1.1.

### Publications and Subscriptions

#### **Publish from and subscribe to Teradata databases with automatic mappings**

Use publications and subscriptions with automatic mappings to publish and subscribe to data from Teradata database sources and targets.

#### **Support the use of Data Quality mappings in Data Integration Hub custom publications and subscriptions**

Publish and deliver data and files with publications and subscriptions that use Data Integration Hub workflows that are based on Data Quality mappings.

#### **Join source tables in publications**

You can combine data from multiple source tables into a single topic table by creating a join or multiple joins. A join combines columns from two or more tables in the database. You can create multiple joins, and you can combine data from joins into new joins. Joins are virtual entities, and are not created in the source database or in the topic.

### Hub Overview Diagram

The Data Integration Hub Operation Console Home page displays a Hub Overview diagram when Data Integration Hub contains entities such as applications, topics, publications, or subscriptions.

The Hub Overview diagram provides a visual overview of the existing entities, grouped into categories.

# CHAPTER 8

## Version 10.1

This chapter includes the following topics:

- [New Features and Enhancements, 21](#)
- [Changes, 22](#)

## New Features and Enhancements

This section lists the new features and enhancements in Data Integration Hub 10.1.

### Big Data

#### **Support the use of Big Data Management® mappings in Data Integration Hub custom publications and subscriptions**

Publish and deliver big data with publications and subscriptions that use Data Integration Hub workflows that are based on Big Data Management mappings.

### Publications and Subscriptions

#### **Use custom publications and subscriptions to share files between applications that reside outside the Data Integration Hub network**

Use publications and subscriptions with custom mappings to publish files and to subscribe to files from remote applications, that reside outside the Data Integration Hub network, through the secure SSH File Transfer Protocol (SFTP).

#### **Publish from and subscribe to cloud-based applications with Mapping Configuration tasks**

Use Informatica Cloud Mapping Configuration tasks to publish and subscribe to data from cloud-based applications.

#### **Publish from and subscribe to PostgreSQL databases with automatic mappings**

Use publications and subscriptions with automatic mappings to publish and subscribe to data from PostgreSQL database sources and targets.

### Publication subscription REST APIs

Use the following Data Integration Hub publication and subscription REST APIs to run publications and subscriptions, to enable and disable publications and subscriptions, and to reprocess publication and subscription events:

- Run Publication Subscription REST API. Starts a publication or a subscription, including disabled publications and subscriptions, and returns the event ID of the publication or the subscription event that Data Integration Hub generates.

**Note:** You can use the Run Publication Subscription REST API to publish data and subscribe to data with publications and subscriptions that trigger a Data Integration task. You cannot use the API to publish data and subscribe to data with data-driven publications and subscriptions.

- Change Publication Subscription Mode REST API. Changes the mode of a publication or a subscription, that is, enables a disabled publication or subscription and disables an enabled publication or subscription.
- Reprocess Event REST API. Reprocesses a publication or subscription event, including events of disabled publications and subscriptions.

## Monitoring and Tracking

Data Integration Hub operators can configure monitoring rules to invoke workflows that instigate actions when an event is in a defined status.

For example, when a publication fails, invoke a workflow that deletes the data from the publishing source.

## Security

### Secure storage of SFTP keys

Manage SSH File Transfer Protocol (SFTP) passwords and keys using a passphrase-protected keystore. Data Integration Hub uses Advanced Encryption Standard (AES) to encrypt the SSH private passwords and keys.

## Changes

This section lists changes in Data Integration Hub 10.1.

### Select Informatica Cloud Tasks Directly in a Publication or a Subscription

You do not need to create Data Integration Hub workflows for custom cloud publications and subscriptions. When you create the publication or the subscription in the Operation Console, you select the Informatica Cloud task in the publication or subscription wizard.

# CHAPTER 9

## Version 10.0

This chapter includes the following topics:

- [New Features and Enhancements, 23](#)
- [Changes, 23](#)

## New Features and Enhancements

This section lists the new features and enhancements in Data Integration Hub 10.0.

### Publications and Subscriptions

#### **Share files between applications that reside outside the Data Integration Hub network**

Publish files to and subscribe to files from remote applications, that reside outside the Data Integration Hub network, through the secure SSH File Transfer Protocol (SFTP).

#### **Publish from and subscribe to cloud-based applications**

You can publish from and subscribe to any cloud-based application that Informatica Cloud supports using Informatica Cloud Services tasks.

### Monitoring and Tracking

Data Integration Hub operators can create event monitors that track publications and subscriptions based on their event status. The operators create rules that instigate actions when an event is in a defined status.

For example, a rule that sends an email notification to the administrator when a specific subscription is in Error status, or a rule that disables publications and subscriptions that are in Error status.

## Changes

This section lists changes in Data Integration Hub 10.0.

#### **Events Menu Renamed to Monitoring and Tracking**

In the Data Integration Hub console, the **Events** menu is renamed to **Monitoring and Tracking**. The **Monitoring and Tracking** menu opens the **Monitors** page and multiple **Event** pages.

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