



Informatica® Multidomain MDM  
10.5 HotFix 2

# What's New and Changed

Informatica Multidomain MDM What's New and Changed  
10.5 HotFix 2  
September 2023

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# Preface

Read the Informatica® *Multidomain MDM Release Guide* to learn about new features and enhancements, behavior changes between versions, and support changes. The Release Guide also includes information about tasks that you might need to complete 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.

### 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.

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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>.

## 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](mailto:ips@informatica.com).

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## 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.

# Part I: Version 10.5 - 10.5 HotFix 2

This part contains the following chapters:

- [10.5 HotFix 2 What's New, 12](#)
- [10.5 HotFix 2 What's Changed , 14](#)
- [10.5 What's New, 15](#)
- [10.5 What's Changed, 18](#)

# CHAPTER 1

## 10.5 HotFix 2 What's New

This chapter includes the following topics:

- [Associate Child Records, 12](#)
- [Bookmark, 12](#)
- [Export a Business Entity Record, 12](#)
- [Export Workflow Tasks, 13](#)
- [Selective Filtering , 13](#)

### Associate Child Records

You can associate child records that part of a root business entity record without having to search the entire records.

### Bookmark

You can bookmark various screens on Entity 360.

### Export a Business Entity Record

You can now export a business entity record and its related records to a PDF file with the **Download as PDF** menu.

Configure the following in the Hub Server Properties to change the default limitations for business entity download:

**pdf\_num\_of\_children**

Maximum number of children you can export for each parent business entity. The default value is 1000.

**pdf-depth**

Maximum depth of child records you can export for a business entity. The default value is 20.

For more information about how to export a business entity, see the *Informatica® Multidomain MDM10.5 HotFix 2 Data Director User Guide*.

## Export Workflow Tasks

Use **Export as Excel** to export the workflow tasks from the Available Tasks or All Assigned Tasks tab of the Task Manager with the required filters.

To change the default limitations for task download, configure the following Hub Server property:

**cmx.e360.taskdata.export.limit**

Number of tasks that you export into an Excel file up to a maximum of 10000 records. Default is 1000.

For more information about the export of workflow tasks, see the *Multidomain MDM 10.5 HF2 Data Director User Guide*.

## Selective Filtering

Enable the **filterChildOutput** property in the Search Query Results Options of Entity 360 UI to filter child or grandchild records of a parent business entity. The search displays results based on the filter parameter you specify for the child record.

Configure the following property in the Hub Server Properties to view the **filterChildOutput** property in the Search Query Results Options of Entity 360:

**cmx.e360.legacysearch.filterchildoutput**

Enable the property to apply filtering on the child or grandchild records for a parent business entity. Default is false.

For more information about how to enable the child or grandchild record filter, see the *Multidomain MDM 10.5 HotFix 2 Business Entity Services Guide*.

## CHAPTER 2

# 10.5 HotFix 2 What's Changed

This chapter includes the following topic:

- [Filter Business Entity, 14](#)

## Filter Business Entity

Entity 360 allows you to filter a Business Entity based on information in their child or grandchild in the Business Entity View.

Previously, you could filter a Business Entity based on its information.

For more information on how to filter Business Entities, see the *Informatica® Multidomain 10.5 HotFix 2 MDM Data Director User Guide*.

# CHAPTER 3

## 10.5 What's New

This chapter includes the following topics:

- [Managing Record Versions, 15](#)
- [Content Security Policy, 16](#)
- [Elasticsearch Upgrade, 16](#)
- [Accessibility and Section 508 Compliance, 16](#)
- [Hub Server Properties, 17](#)

### Managing Record Versions

You can manage data change events of business entities and their relationships through timeline management. A data change event is a change to data that is effective for a time period. When data change events occur, the MDM Hub creates versions of the record instead of overwriting the existing data.

If timeline is enabled, you can create, view, update, and delete versions of a business entity record. You can define the record versions based on their effective periods. Data changes occur over time and are independent of their relationship to other data. The changes to data result in a new version of effectiveness or an updated period of effectiveness for the past, present, or future. You can track these changes to data over a period of time.

For more information on managing record versions, see the *Multidomain MDM Data Director User Guide*.

### Setting the End Date or Time of Record Versions

You can set the end date or time of a record version. The end date or time is between the start date or time of the first version and the end date or time of the last version of a record.

For more information on setting the end date or time of record versions, see the *Multidomain MDM Data Director User Guide*.

### Searching for Record Versions

You can use a query to search for a record version based on the effective date or effective period.

For more information on searching for record versions, see the *Multidomain MDM Data Director User Guide*.

## Exporting Record Versions from Query Results

You can export versions of a business entity record from query results.

For more information on exporting record versions, see the *Multidomain MDM Data Director User Guide*.

## Establishing the Best Version of the Truth for Record Versions

You can review cross-reference records to determine the source data that contributes to a record version.

For more information on establishing the best version of the truth for a record version, see the *Multidomain MDM Data Director User Guide*.

## Investigating Data Changes in Record Versions

You can investigate data changes for a particular record version. You can view the data before a data event and after a data event to determine if the event caused the inappropriate data change.

For more information on investigating data changes in record versions, see the *Multidomain MDM Data Director User Guide*.

# Content Security Policy

Content Security Policy (CSP) is a standard that prevents code injection attacks, such as cross-site scripting. Multidomain MDM has content security policy rules to allow approved origins of content that a browser can load to display website content. The content security policy rules are applied across the system.

When you install Multidomain MDM, default rules are applied that allow only content required for Multidomain MDM to run. You can configure the content security policy to declare approved origins of content that a browser can load to display website content.

For more information about configuring the content security policy, see the *Multidomain MDM Provisioning Tool Guide*.

# Elasticsearch Upgrade

When you upgrade Elasticsearch, in the Provisioning tool, you can specify to add the index details to the upgraded node. The existing node continues to manage search requests until the index details are added to the new node.

For more information about upgrading Elasticsearch, see the *Multidomain MDM Version 10.5 Provisioning Tool Guide*.

# Accessibility and Section 508 Compliance

The Multidomain MDM user interface is on the way to being compliant with Section 508 of the Rehabilitation Act. The user interface includes several enhancements to improve accessibility for people with disabilities.



# Hub Server Properties

You can use the following Hub Server properties to control the run-time behavior of the MDM Hub.

Configure the Hub Server properties in the `cmxserver.properties` file.

## **cmx.login.autocomplete**

Optional. Must be added manually. Specifies whether to autofill the user name and password on the login screen. This property works in conjunction with the autofill capability of the browser. To autofill the values, set to `true`. Default is `false`. If the browser is set to autofill values and this property is not set or is set to `false`, the password is not automatically populated. The user can see a list of saved passwords when they move the focus to the password field.

## **cmx.server.jgroup.name**

Optional. Must be added manually if not present. Jgroup name to assign when using Oracle RAC in a multi-node environment. This property must be set to the same value in the `cmxserver.properties` file on all nodes in the cluster.

For more information about deploying the Hub Server in a clustered environment, see the *Multidomain MDM Installation Guide*.

For more information about the Hub Server properties, see the *Informatica Multidomain MDM Version 10.5 Configuration Guide*.

## CHAPTER 4

# 10.5 What's Changed

This chapter includes the following topics:

- [Persisting Search Preferences, 18](#)
- [Concurrent Updates in the Provisioning Tool, 18](#)

## Persisting Search Preferences

Effective in version 10.5, Multidomain MDM automatically saves the search preferences of each user and uses the same preferences when the user performs a search again. The search preferences include the fields that appear in the search results and the sorting order. When a user uses queries, the search preferences are saved for each query. When a user uses the search box, the search preferences are saved for each business entity.

Previously, the search preferences were not automatically saved for each user.

For more information about finding records, see the *Informatica Multidomain MDM Version 10.5 Data Director User Guide*.

## Concurrent Updates in the Provisioning Tool

Effective in version 10.5, multiple users can concurrently perform exclusive configuration tasks in the Provisioning tool, such as adding or editing two different business entities.

Previously, configuration tasks that users concurrently performed weren't saved.

# Part II: Version 10.4 - 10.4 HotFix 3

This part contains the following chapters:

- [Version 10.4 HotFix 3, 20](#)
- [Version 10.4 HotFix 2, 25](#)
- [Version 10.4 HotFix 1, 31](#)
- [10.4 Important Notices, 37](#)
- [10.4 What's New, 39](#)
- [10.4 What's Changed, 50](#)

# CHAPTER 5

## Version 10.4 HotFix 3

### What's New

#### Draft Records

When you add a business entity record, you can save it as a draft. You can edit and complete the draft record later, and then submit it.

Your draft records are not visible to other users.

For more information about draft records, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Data Director User Guide*.

#### Configuring a Login Banner

You can configure the login page legal disclaimer for Data Director, Provisioning tool, and the MDM Hub Console using REST APIs. The user must acknowledge this legal disclaimer before logging in. For example, the login page legal disclaimer might describe permitted uses of the applications and the security policies they enforce.

For more information about configuring the login page legal disclaimer, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Business Entity Services Guide*.

#### Rebranding Data Director

To reflect the identity of your organization, you can customize the look and feel of the Data Director application. You can change the default color theme, login background, and logo using REST APIs.

For more information about rebranding Data Director, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Business Entity Services Guide*.

#### Data Import Performance Enhancement

The performance of the process to import data and trigger related workflows is improved.

## Managing Multiple Hierarchy Relationships

You can edit and delete multiple relationships and move multiple relationships from one parent to another. In the hierarchy panel, you can now search for a business entity record in the hierarchy.

For more information about managing multiple hierarchy relationships, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Data Director User Guide*.

## Managing Multiple Network Relationships

You can edit and delete multiple relationships and move multiple relationships from one node to another. You can visualize the relationships as a connected graph or a tree graph. You can collapse the relationship panel of the Network view to allow the network canvas to fill the entire screen. You can also open and filter related records to view the records that are shown on the network panel.

For more information about managing multiple network relationships, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Data Director User Guide*.

## Configuring Returned Paths in Hierarchy Search

You can specify the number of returned paths in the hierarchy search. The number of returned paths represents the connected paths between the root node and the leaf node including all parent nodes. For example, if you specify three as the number of returned paths, the search returns three connected paths from the root node consisting of two child nodes and the leaf node.

For more information on configuring the hierarchy settings, see the *Multidomain MDM Version 10.4 HotFix 3 Provisioning Tool Guide*.

## Configuring the Layout of Child Records

You can configure the layout of child records for the Business Entity view. You can select the number of records that you want to display in the page. You can also configure to expand the child records by default when a user opens the page.

For more information on designing a business entity view layout, see the *Multidomain MDM Version 10.4 HotFix 3 Provisioning Tool Guide*.

## Number of Thread Pools for SDO Generation

You can specify the number of thread pools for SDO generation by using the following property:

**`com.siperian.common.xml.sdo.sdo_resolver_pool_size`**

Optional. Must be added manually. Specifies the number of thread pools to use for SDO generation.

Configure the property in the `cmxserver.properties` and the `cmxcleanse.properties` files.

For more information about this property, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Configuration Guide*.

## REST APIs

Informatica Multidomain MDM exposes new REST APIs.

You can make REST API calls to perform the following operations:

- Rebrand Data Director and customize the look and feel.
- Configure the login page legal disclaimer that the users must acknowledge before logging in.

For more information about new REST APIs, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Business Entity Services Guide*.

### Configuring the Login Page Disclaimer REST API

You can configure the legal disclaimer that the users must acknowledge before logging in. To configure the login page legal disclaimer, you must use a set of REST APIs.

The following table lists the REST APIs for configuring the login page legal disclaimer:

	Description
Read Legal Message Configuration	Reads the file information. For example, retrieves the current legal disclaimer. Supports the GET method.
Set Legal Message Configuration	Creates or updates a file. For example, updates the current legal disclaimer. Supports the POST method.
Delete Legal Message Configuration	Deletes a file. For example, deletes the current legal disclaimer. Supports the DELETE method.

For more information about configuring the legal disclaimer, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Business Entity Services Guide*.

### REST APIs for Rebranding Data Director

You can rebrand Data Director and customize the look and feel using REST APIs.

The following table describes the REST APIs for rebranding Data Director:

REST API	Description
Upload Logo File	Uploads the logo image file. Supports the POST method.
Delete Logo File	Deletes the logo image file. Supports the DELETE method.
Upload Login BG File	Uploads the login page background image file. Supports the POST method.
Delete Login BG File	Deletes the login page background image file. Supports the DELETE method.
Get Variables	Reads the user interface settings, such as the colors of buttons, menus, and text in the Data Director application. Supports the GET method.

REST API	Description
Update Variables	Updates the user interface settings, such as the colors of buttons, menus, and text in the Data Director application. Supports the POST method.
Delete Color Schema	Restores the default user interface settings. Supports the DELETE method.

For more information about rebranding Data Director, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Business Entity Services Guide*.

## Validating the Operational Reference Store of Customer 360 and Supplier 360

You can validate the Operational Reference Store of Customer 360 or Supplier 360 through the Repository Manager tool of the Hub Console.

The **Domain Results** tab of the Repository Manager tool displays the validation errors in the Operational Reference Store of Customer 360 or Supplier 360. You can restore missing or updated resources to their original configuration based on the validation errors.

For more information about validating the Operation Reference Store, see the *Informatica Multidomain MDM 10.4 HotFix 3 Repository Manager Guide*.

## What's Changed

### Add Business Entity Record Icon in Relationship Panel

In Data Director with business entities, in the Network view, the **Add Business Entity Record** icon now appears in the relationship panel. Previously, the **Add Business Entity Record** icon only appeared in the network panel.

### Moved Export Icon in the Hierarchy View

In Data Director with business entities, the **Export** icon in the relationship panel of the Hierarchy view appears at the top of the panel. Previously, the **Export** icon appeared beside the **Filter Related Records** icon.

### Added User ID Field in Change Password Window

Effective in version 10.4 HotFix 3, when you change a password in Data Director, you can see the ID of the user. Previously, you did not see the user ID.

The following image shows the user ID in the **Change Password** window:

The image shows a 'Change Password' dialog box with the following fields and values:

Field	Value
Username	Mary Stewart
User ID	mstewart
Password	Password
New password	New password
Confirm password	Confirm password

Buttons: Change Password, Cancel

## View the RowID Object Value in the Query Results

Effective in version 10.4 HotFix 3, you can customize query results to show the ROWID\_OBJECT value of the records. Previously, you did not see the ROWID\_OBJECT value in the query results.

For more information about customizing the query results, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Data Director User Guide*.

## Time Zone Information in Log Files

Effective in version 10.4 HotFix 3, you can see the time zone information in the Hub Server, Process Server, Data Director, and Provisioning tool logs. Previously, you did not see the time zone information in these logs.

For more information about the log files, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Configuration Guide*.

## Sort Child Columns in the Query Results

Effective in version 10.4 HotFix 3, you can sort the child fields of a field with one-to-many relationships in the query results. Previously, you could sort only the root fields in the query results.

For more information about queries, see the *Informatica Multidomain MDM Version 10.4 HotFix 3 Data Director User Guide*.



# CHAPTER 6

## Version 10.4 HotFix 2

### Important Notices

#### Support Changes (10.4 HotFix 2)

This section describes the support changes in version 10.4 HotFix 2.

##### Red Hat JBoss Enterprise Application Platform 7.3 Support

Informatica Multidomain MDM supports Red Hat JBoss Enterprise Application Platform 7.3.

In an environment that uses Red Hat JBoss EAP 7.3, you must set a system property that prevents REST API authentication failures of business entity service requests that do not contain required credentials due to truncated cookie values.

1. Open the `standalone.conf` file:  
On UNIX. `< JBoss installation directory >/bin/standalone.conf`  
On Windows. `< JBoss installation directory >\bin\standalone.conf.bat`
2. Configure the following option:  
`Dio.undertow.legacy.cookie.ALLOW_HTTP_SEPARATORS_IN_V0`  
Set to `true` to set the property as a system property. Default is `false`.

To launch ActiveVOS administration page and log in successfully, you must use one of the followings URLs:

- Secure connections. `https://<hostname:port>/activevos/home.action`
- Non-secure connections. `http://<hostname:port>/activevos/home.action`

For information about supported platforms, see the Product Availability Matrix on the Informatica Network: <https://network.informatica.com/community/informatica-network/product-availability-matrices>.

### What's New

## Copying a Record in Data Director with Business Entities

You can copy a business entity record, modify it, and then save it as a separate record. When you copy a record, the values from read-only fields are not copied. Read-only field values are populated automatically with default values or remain empty. To copy a record, you need to have permission to create records.

1. Search for the record that you want to copy, and then open it.
2. From the **Actions** menu, select **Copy**. A copy of the record appears.
3. Change the values based on your requirements. For example, modify the name, address, or email address.
4. Click **Save**.

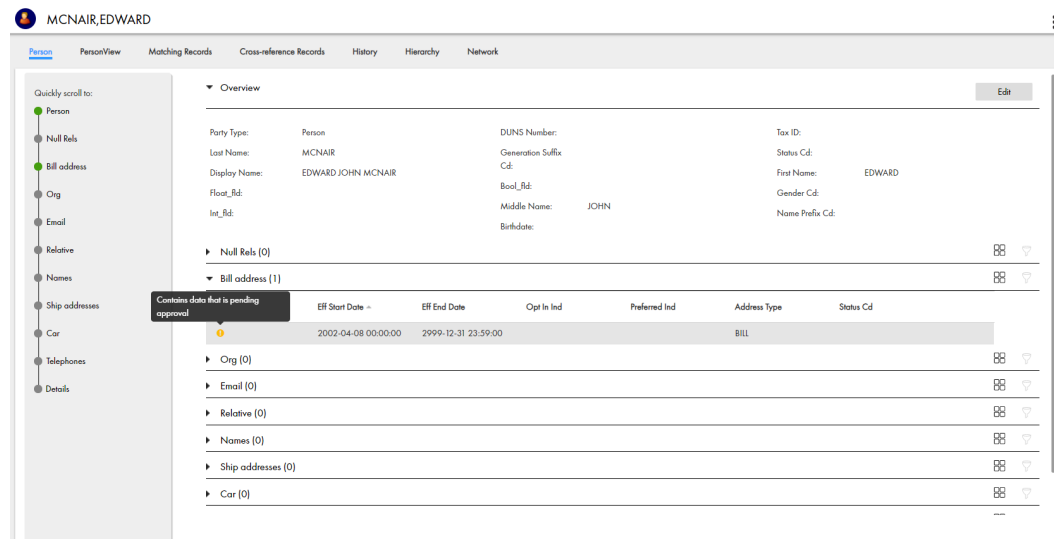
**Note:** When a single layout contains more than one business entity view, and you copy the record, you can save one view only. Click Save, in the view that you want to save.

## Editing a Record Containing a Child Record with Pending Changes

You can edit the root record or child records that do not have any pending changes. A yellow pending icon indicates whether a record contains any pending changes.

1. From the **Search Results** panel of the **Search** page, open the record that you want to edit. The record opens in a record view.
  2. Click **Edit**.
- If the button is disabled, you do not have permission to edit the record or the record has changes that are pending approval.

The following image shows the record for Edward John McNair, in edit mode. The record also contains a child record that you cannot edit because it has pending changes.



## Deleting a File Attachment

You can delete a file attached to a business record if no workflow triggers are configured for the update event for this business entity.

1. In Data Director, open the record that contains the file you want to delete.

2. Select the file attachment and press **Delete**.

The following message appears:

The file <fileID>will be permanently deleted from the database after you save the record.  
Are you sure you want to delete the file when the record is saved? Yes/No

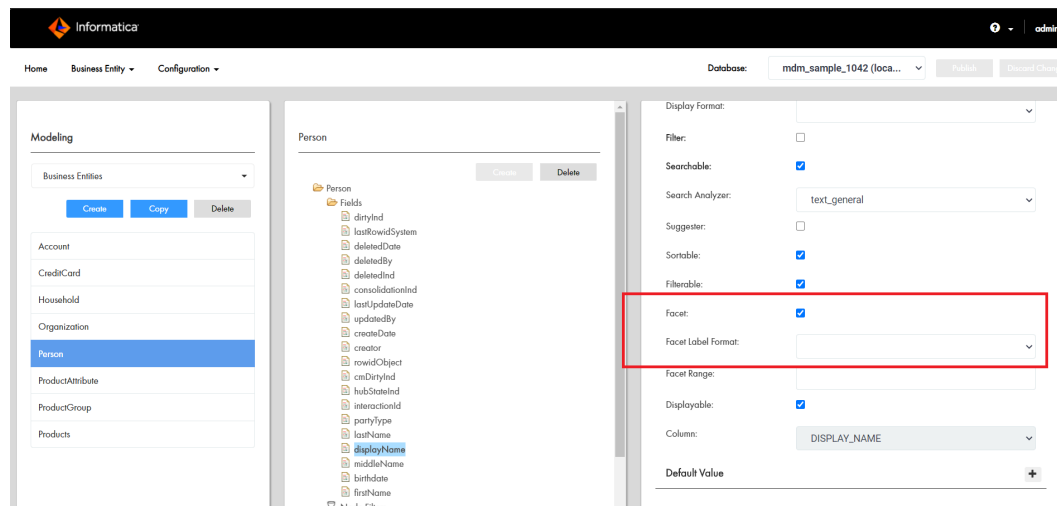
3. Click **Yes**.

## New Facet Label Format Options

You can choose the preferred case for displaying facet values after a search.

1. In the Provisioning Tool, select the **Facet** check box.
2. From the **Facet Label Format** drop-down menu, select the preferred option:
  - **Lowercase**
  - **Uppercase**
  - **Title Case**
3. Click **Save**.

**Note:** You must select an option to be able to save the changes. If you upgrade from a previous version of Multidomain MDM to version 10.4 HotFix 2, you will see the Title Case by default. You can change this in the Provisioning Tool.



For more information, see the *Multidomain MDM Version 10.4 HotFix 2 Provisioning Tool Guide*.

## Interactive Saving Option in Data Director (E360)

In Data Director (E360), a warning message might appear if you have not entered all the required information when you edit a record.

The following warning appears when you click Save:

Warning(s) Detected. Are you sure you want to save your changes? (Yes/No)

You can ignore this message and proceed to save the record, or you can go back to the record and add the missing information.

You must configure external calls for custom logic and validation of business entity data. The interactive saving option works with any external call, and relies on the following parameter:

`ignoreWarnings`. Indicates whether the warning-level validation messages are ignored. Set to `true` to ignore the warning messages. Default is `false`.

For example, your Data Director can be configured to validate whether every Person record contains a telephone number. When you edit a record, you must enter a telephone number. If you do not enter it, and then click Save, the warning message appears.

## Fielded Search Returns Exact Matches from the Child Nodes

Fielded search can return exact matches from within child nodes for a business entity type.

Set the following Java option:

`DUseESLegacyFqSearch`

This Java option indicates whether a search must return records that contain search values in the same child node, if multiple query fields are at the child level. Set to `true` to return records that might match the child level query field from different child nodes. Default is `false`.

## Auto-Delete and Auto-Promote Enhancements

Informatica Multidomain MDM now includes the following Auto-Delete and Auto-Promote enhancements:

- **Auto-Delete.** You can use the Auto-Delete feature in conjunction with the Load Batch method. You cannot call the PUT SIF API to delete a cross-reference record.
- **Auto-Promote.** A soft-deleted cross-reference record is now automatically reactivated (set to Active status) and you can edit it. The Auto-Promote feature is a part of the Put SIF API.

The following behavior is now enabled:

- When one edit record is associated with one cross-reference record:
  - Edit record is auto-deleted when you delete a cross-reference record.
- When one edit record is associated with multiple cross-reference records:
  - Edit record is auto-deleted only when you delete the last remaining Active cross-reference.
- When multiple edit records are associated with multiple cross-reference records:
  - All edit records are auto-deleted after you delete the last remaining Active cross-reference record.
- When a Source cross-reference is reactivated or a new Active cross-reference is added:
  - A PUT SIF API Edit call (PUT SIF API without `PKEY_SOURCE_OBJECT`, but with `ROWID_OBJECT`), used by Data Director, automatically reactivates the edit record selected by MDM Hub.
- When one edit record is associated with one cross-reference record, unmerge of the cross-reference record includes the edit record as well.

## Searching by the Original Rowid Object

You can search for a master record using the original rowid object from any of its cross-reference records.

For example, if 20 records were merged, you can use the original rowid object from any of these records, to search for the master record. In this example, there are 20 original rowid objects. 19 rowid objects are associated with the cross-reference records, and one with the master record.

1. At the **Query** panel, in the search field, type the original rowid object from a cross-reference record.
2. Run the search. The search results return the associated master record.

### Sample requests

The following sample request queries the Person business entity for records with corresponding original rowid objects. In this example, only one record is returned, based on the value '1' used as a unique identifier ROWID\_OBJECT for this Person:

```
GET http://localhost:8080/cmx/cs/localhost-orcl-DS_UI1/Person?
action=query&filter=origRowidObject='1'&outputView=PersonAddressView
```

The following sample request queries the Person business entity for surviving records with corresponding ROWIDs. In this example, only one record is returned, based on the value '1' used as a unique identifier ROWID\_OBJECT for this Person:

```
GET http://localhost:8080/cmx/cs/localhost-orcl-DS_UI1/Person?
action=query&filter=rowidObject='1'&outputView=PersonAddressView
```

## Maintaining the Latest Password Information

Informatica Multidomain (MDM) maintains the latest information about the latest password and who changed the password. Password history is not available.

## Windows Authentication Support

Effective in version 10.4 HotFix 2, Informatica Multidomain MDM provides Windows Authentication support.

To configure Windows Authentication, open the `cmxserver.properties` file and set the following property:

```
cmx.server.database.authentication.method=windowsauthentication
```

The application will use the Windows Authentication method to connect to the data source.

**Note:** Windows Authentication is available for JBoss EAP and Oracle WebLogic application servers running on Windows and connecting to a MS SQL server database running on Windows.

## External Authentication of MDM Users through Direct Connections

Informatica Multidomain MDM provides support for external authentication of users through direct connections.

Informatica Multidomain MDM can retrieve credentials or connection properties from external vaults/wallets, when it makes direct connections. These connections do not imply direct data source connections as they are managed by the application servers (containers).

For samples, refer to *Informatica Multidomain (MDM) Resource Kit*.

## Hub Server Properties

You can retain the order of fields from the subject area layout in a business entity, when you generate the business entity schema for the subject area.

Configure the following Hub Server property in the `cmxserver.properties` file.

### **cmx.server.sa2be.sort**

Optional. Must be added manually. Set to `true` to preserve sort order from the original layout. Default is `false`

For more information about the Hub Server properties, see the *Informatica Multidomain MDM Version 10.4 HotFix 2 Hub Configuration Guide*.

## Enabling Security for Siperian Bus in the WebSphere application server

Informatica Multidomain MDM supports secure communication over Siperian Bus.

To enable security for Siperian Bus, you must complete the required configuration procedure in the WebSphere console, and then configure relevant properties in the `cmxserver.properties` file.

For more information about enabling security for Siperian Bus, see the *Informatica MDM Version 10.4 HotFix 2 Security Guide*.

# CHAPTER 7

## Version 10.4 HotFix 1

This chapter includes the following topics:

- [Important Notices, 31](#)
- [What's New, 33](#)
- [What's Changed, 35](#)

### Important Notices

#### Support Changes

This section describes the support changes in version 10.4 HotFix 1.

##### [Informatica ActiveVOS Version 9.2.4.6 Support](#)

Informatica Multidomain MDM 10.4 HotFix 1 supports only ActiveVOS version 9.2.4.6.

If you upgrade from an earlier version of Multidomain MDM, ensure that you install ActiveVOS version 9.2.4.6.

##### [Reinstated Support for Zero Downtime Upgrade](#)

Effective in version 10.4 HotFix 1, Informatica reinstates support for zero downtime (ZDT) upgrade that was temporarily unavailable in version 10.4.

ZDT upgrade minimizes disruptions when you upgrade Multidomain MDM. For more information, see the *Multidomain MDM Zero Downtime Upgrade Guide* for the database in use.

##### [Zero Down Time Data Replication Delay](#)

Effective in version 10.4 HotFix 1, when you upgrade Multidomain MDM in a zero downtime environment, data replication from the source system to the target system is delayed by 60 seconds.

The delay is applicable only for the first record that is replicated and if the source system and the target system are installed on separate environments.

## Support for Adobe Flash Player

Effective in version 10.4 HotFix 1, Informatica Data Director with subject areas does not require Adobe Flash Player.

Support for Adobe Flash Player is deprecated. Adobe announced that it would end support for Flash Player at the end of 2020.

For more information about Data Director with subject areas, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director User Guide*.

## Dropped Support for Informatica Platform Staging

Effective in version 10.4 HotFix 1, Informatica dropped support for Informatica platform staging that uses the Data Integration Service.

## Deprecated Support for Informatica Data Controls

Effective in version 10.4 HotFix 1, support for Informatica Data Controls (IDC) for Data Director with subject areas is deprecated. Informatica intends to drop support for IDC in a future release.

## Deprecated Support for BPM Adapter SDK

Effective in version 10.4 HotFix 1, support for the BPM Adapter Software Development Kit (SDK) is deprecated. Informatica intends to drop support for this SDK in a future release.

## Deprecated Support for History View in IDC

Effective in version 10.4 HotFix 1, support for the History View in Informatica Data controls is deprecated. Informatica intends to drop support for the History View in a future release.

## Deprecated Support for MDM Hub Cleanse Maps

Effective in version 10.4 HotFix 1, support for the MDM Hub Cleanse Maps is deprecated. Informatica intends to drop support for Cleanse Maps in a future release.

## Deprecated Support for Cleanse Lists

Effective in version 10.4 HotFix 1, support for the MDM Hub Cleanse Lists is deprecated. Informatica intends to drop support for Cleanse Lists in a future release.

## Deprecated Support for Custom Buttons

Effective in version 10.4 HotFix 1, support for custom buttons is deprecated. Informatica intends to drop support for custom buttons in a future release.

## Deprecated Support for Custom Java Cleanse Functions

Effective in version 10.4 HotFix 1, support for the MDM Hub custom Java cleanse functions is deprecated. Informatica intends to drop support for custom Java cleanse functions in a future release.



## Deprecated Support for Match Only Once

Effective in version 10.4 HotFix 1, support for the MDM Hub Match Only Once property is deprecated. Informatica intends to drop support for this property in a future release.

## Deprecated Support for Match Only Previous Rowid Objects

Effective in version 10.4 HotFix 1, support for the MDM Hub Match Only Previous Rowid Objects property is deprecated. Informatica intends to drop support for this property in a future release.

## Deprecated Support for Processes Views

Effective in version 10.4 HotFix 1, support for the MDM Hub Processes view is deprecated. Informatica intends to drop support for Processes view in a future release.

## Deprecated Support for Data Steward Workbench

Effective in version 10.4 HotFix 1, support for the MDM Hub Console Data Steward Workbench tools are deprecated. Informatica intends to drop support for the Data Steward Workbench tools in a future release.

The Data Steward Workbench consists of the following tools:

- Data Manager
- Merge Manager
- Hierarchy Manager

# What's New

## Migrate Bundle Button

In the Data Director Configuration Manager, the migrate bundle button localizes the metadata of records that belong to a subject area and are migrated to business entity records.

For more information about migrating the bundle, see the Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director Configuration Manager Guide.

## Hierarchy Widget Component

In the Data Director dashboard, the Hierarchies Widget component displays all related records of a record in a hierarchical format.

You can define the hierarchical relationships for your data in the Provisioning tool.

For more information about configuring Hierarchy Widgets, see the *Informatica MDM Version 10.4 HotFix 1 Provisioning Tool Guide*.

## ActiveVOS Properties

After you install the MDM Multidomain 10.4 HotFix 1 Edition, you can configure the following ActiveVOS properties:

Property Name	Description
activevos.install.console	Controls if the ActiveVOS console is deployed in the ActiveVOS Server. Default is true. If set to false, the ActiveVOS console is not installed.
activevos.secure.https.only	Enables secure communication between ActiveVOS and the MDM Hub. Forces and redirects all ActiveVOS HTTP traffic to HTTPS. Default is false.

For more information, see the, *Informatica Multidomain MDM Version 10.4 HotFix 1 Installation Guide*.

## Hub Server Properties

You can use the following Hub Server property to control the time to validate records:

### **cmx.server.validate.lookup.timeline.onload**

Must be added manually. Specifies the amount of time required to validate the lookup fields while performing a load job. Default is false.

Configure the Hub Server property in the `cmxserver.properties` and the `cmxcleanse.properties` files.

For more information about the Hub Server property, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Hub Configuration Guide*.

## Oracle Configuration Manager

The Hub Console supports Oracle Configuration Manager (OCM).

OCM collects data for transactions between all applications and databases. All application configuration information is stored in OCM.

For more information about OCM, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Installation Guide*.

## Authentication REST API

You can use the Authentication REST API to authenticate users before they run other REST APIs.

For more information about the Authentication REST API, see the, *Informatica Multidomain MDM Version 10.4 HotFix 1 Business Entity Services Guide*.

# What's Changed

## Support for Elasticsearch 6.8.6

Effective in version 10.4 HotFix 1, the search operation requires Elasticsearch version 6.8.6.

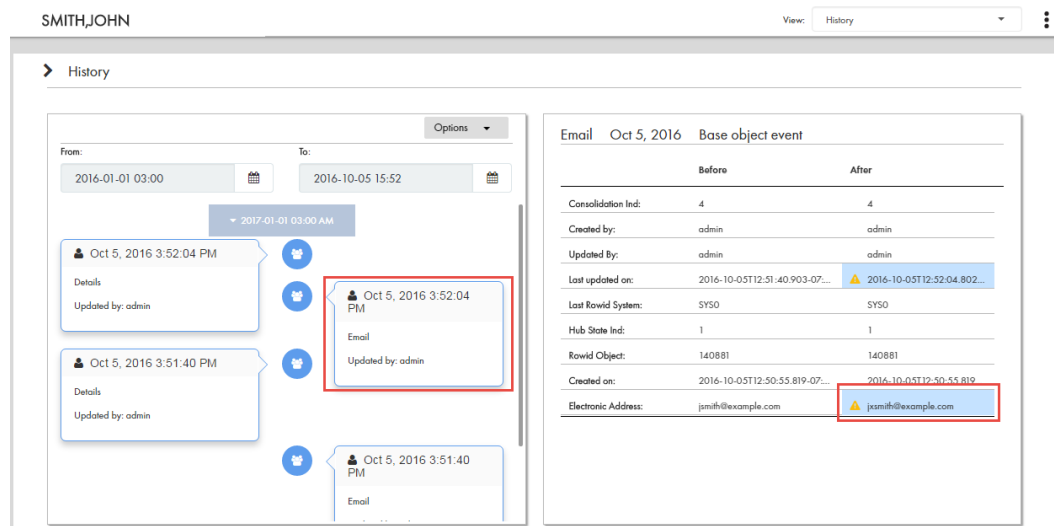
For more information about upgrading to Elastic Search 6.8.6, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Upgrade Guide*.

## History View

Effective in version 10.4 HotFix 1, Data Director has a new user interface for the History view and does not require Adobe Flash Player. You can use the **History** view to view the data changes that a record has undergone. Each data changes appears as an event in the **History** view.

The **History** view does not display the history of relationship records.

The following image shows the new user interface for the **History** view in Data Director:



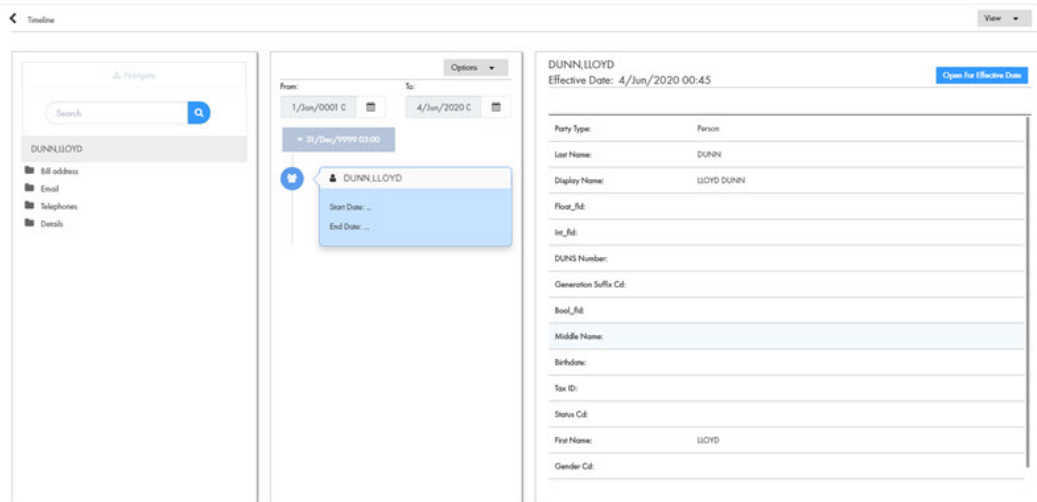
For more information about the **History** view, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director User Guide*.

## Effective Period View

Effective in version 10.4 HotFix 1, Data Director has a new user interface for the **Effective Period** view and does not require Adobe Flash Player. You can use the **Effective Period** view to investigate data with effective dates.

The **Effective Period** view does not display the timeline for a relationship. The timeline for a relationship appears in the **Network** layout of the **Hierarchy** view.

The following image shows the new user interface for the **Effective Period** view in Data Director:



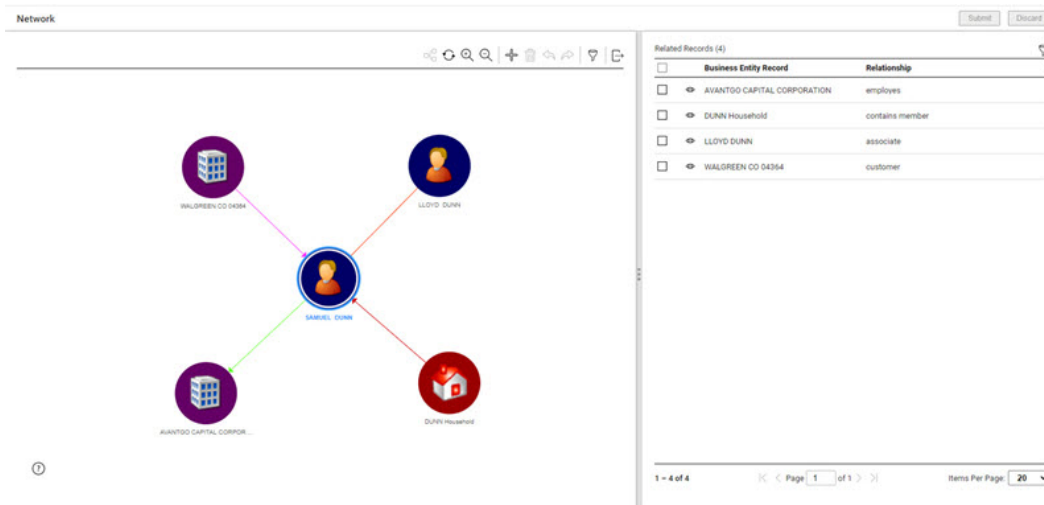
For more information about the **Effective Period** view, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director User Guide*.

## Hierarchy View

Effective in version 10.4 HotFix 1, when you open a record in the **Hierarchy** view, the record and relationships appear in the **Network** layout. The user interface of the **Network** layout does not require Adobe Flash Player.

Use the **Network** layout to view, create, and manage the network of relationships for a record. You can view the relationships in a network for an effective date or, you can show or hide relationships in the network. You can also export the network graph. You cannot change the layout of the records and relationships.

The following image shows the **Network** layout in Data Director:



For more information about the **Network** layout, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director User Guide*.

# CHAPTER 8

## 10.4 Important Notices

This chapter includes the following topic:

- [Support Changes, 37](#)

### Support Changes

This section describes the support changes in version 10.4.

#### Dropped Support for Search with Apache Solr

Effective in version 10.4, Informatica dropped support for search with Apache Solr. If you are using search with Apache Solr, you must start using search with Elasticsearch.

For more information about search with Elasticsearch, see the *Multidomain MDM Version 10.4 Configuration Guide* and the *Multidomain MDM Version 10.4 Upgrading From <Version> guide*.

#### Dropped Support for Operating Systems

Effective in version 10.4, Informatica dropped support for the Oracle Solaris and the HP-UX operating systems. If you are using Oracle Solaris or HP-UX, Informatica requires you to use a supported operating system.

For information about supported operating systems, see the Product Availability Matrix on the Informatica Network: <https://network.informatica.com/community/informatica-network/product-availability-matrices>

#### Deprecated Support for Adobe Flash Player

Effective in version 10.4, support for Adobe Flash Player is deprecated. Adobe announced that it would end support for Flash Player at the end of 2020.

If you use Data Director with subject areas that requires Adobe Flash Player, Informatica recommends that you migrate to Data Director with business entities.

For information about migrating to Data Director with business entities, see the *Multidomain MDM Version 10.4 Data Director Migration Guide*.

## Deprecated Support for Data Director with Subject Areas

Support for Data Director with subject areas is deprecated. Informatica intends to drop support for Data Director with subject areas in a future release.

If you are using Data Director with subject areas, Informatica recommends that you migrate to Data Director with business entities.

If you are a new customer, do not use Data Director with subject areas. You must use Data Director with business entities.

For information about migrating to Data Director with business entities, see the *Multidomain MDM Version 10.4 Data Director Migration Guide*.

## Deprecated Support for Informatica Platform Staging

Effective in version 10.4, support for Informatica platform staging that uses the Data Integration Service is deprecated. Informatica intends to drop support for Informatica platform staging in a future release.

You can use Informatica Data Integration and Informatica Data Quality to directly load data into the MDM Hub staging tables. This requires you to manually synchronize changes to the staging tables with the Informatica Data Integration and Informatica Data Quality repositories.

## Deprecated Support for Blowfish Encryption

Effective in version 10.4, support for Blowfish encryption is deprecated. Informatica intends to drop support for Blowfish encryption in a future release.

Blowfish encryption is replaced by a secure certificate-based encryption mechanism. The certificates are generated during the installation and upgrade process.

If you are using Blowfish with APIs to decrypt database passwords, Informatica recommends that you update your APIs to use the certificate-based encryption mechanism.

## Deferred Support for Zero Downtime Upgrade

Effective in version 10.4, zero downtime (ZDT) upgrade is deferred and is unavailable because of the changes to the mode of authentication for Multidomain MDM.

Informatica intends to reinstate upgrade with ZDT in an upcoming release. If you purchased the ZDT module, we recommend that you wait for ZDT to become available before you upgrade. For more information, contact Informatica Global Customer Support.

# CHAPTER 9

## 10.4 What's New

This chapter includes the following topics:

- [Hierarchy Relationships, 39](#)
- [Hierarchy View, 40](#)
- [Chart Component, 41](#)
- [Creating Match Rule Sets in the Provisioning Tool, 42](#)
- [Manage Multiple Tasks, 43](#)
- [Find and Replace Values Across Multiple Records, 43](#)
- [Import New Records, 44](#)
- [Matching New Records with Existing Records, 44](#)
- [Triggering Task Review Process, 44](#)
- [Custom Elasticsearch Index Settings, 45](#)
- [Search Filter Display, 45](#)
- [Icons and Colors for Business Entities, Records, and Relationships, 45](#)
- [Additional Pages, 46](#)
- [Hyperlinks in Business Entity Views, 47](#)
- [Installer Enhancements, 47](#)
- [Hub Server Properties, 47](#)
- [Process Server Property, 49](#)

### Hierarchy Relationships

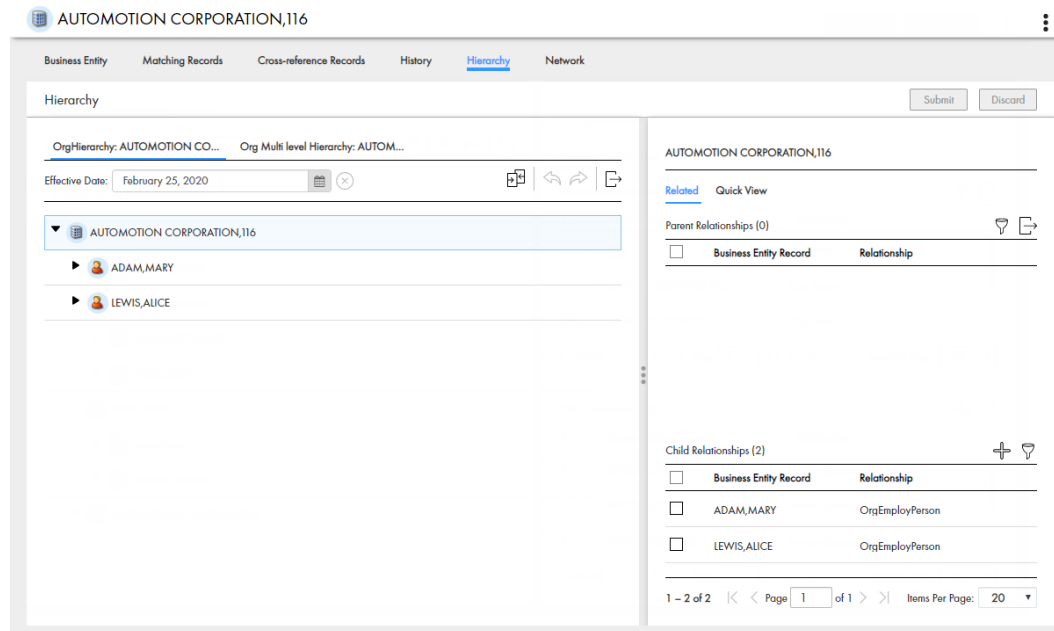
In the Provisioning tool, you can create hierarchy relationships to define hierarchical relationships between business entities. Then you use the hierarchy relationships defined between business entities to configure hierarchy relationships between records in Data Director.

In Data Director, use the **Hierarchy** view to view, create, and manage hierarchy relationships for a record. You can view the relationships in a hierarchy for an effective date. Or, you can compare the current hierarchy with a version of the hierarchy at an effective date or history date. You can also export the hierarchy.

In the Provisioning tool, you can configure tasks and triggers to ensure changes to hierarchies in Data Director move through an approval workflow. Then in Data Director, when you send your changes for approval, reviewers can compare your changes with the saved hierarchy.

In the Provisioning tool, you can also configure the **Quick View** tab for the **Hierarchy** view. Then in Data Director, you can use the tab to view the details of a record in the hierarchy.

The following image shows the **Hierarchy** view in Data Director:



You can also access hierarchy relationships by using REST APIs.

For upgrading customers with relationships in Hierarchy Manager in the Hub Console, use the Provisioning tool to copy the relationships, and then create them as hierarchy relationships or network relationships. Then revert the entity base objects to base objects. After you revert the base objects, you can create new hierarchy relationships or network relationships in the Provisioning tool.

For more information, see the *Informatica Multidomain MDM Version 10.4 Upgrade Guide*, *Informatica Multidomain MDM Version 10.4 Provisioning Tool Guide*, *Informatica Multidomain MDM Version 10.4 Data Director User Guide*, and *Informatica Multidomain MDM Version 10.4 Business Entity Services Guide*.

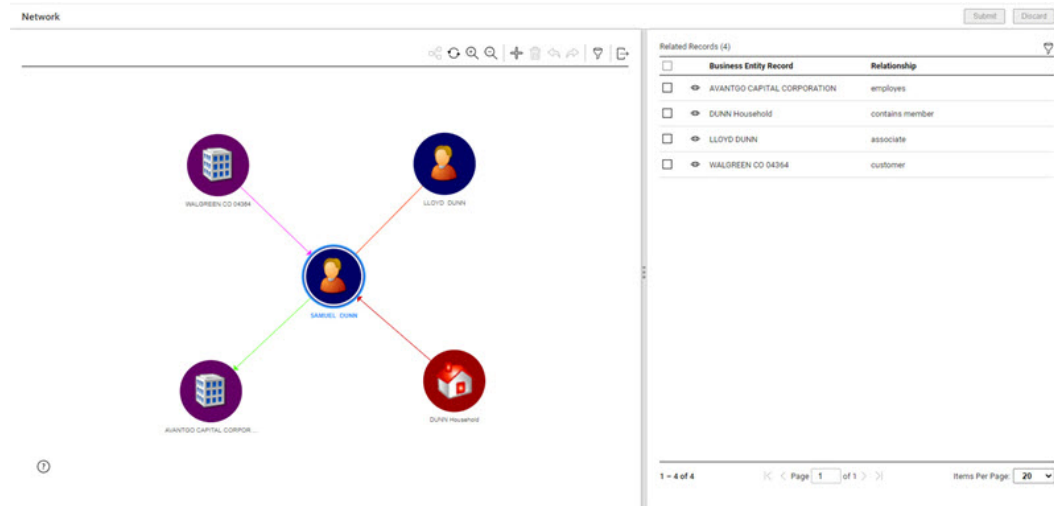
## Hierarchy View

Effective in version 10.4 HotFix 1, when you open a record in the **Hierarchy** view, the record and relationships appear in the **Network** layout. The user interface of the **Network** layout does not require Adobe Flash Player.

Use the **Network** layout to view, create, and manage the network of relationships for a record. You can view the relationships in a network for an effective date or, you can show or hide relationships in the network. You can also export the network graph. You cannot change the layout of the records and relationships.



The following image shows the **Network** layout in Data Director:



For more information about the **Network** layout, see the, *Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director User Guide*.

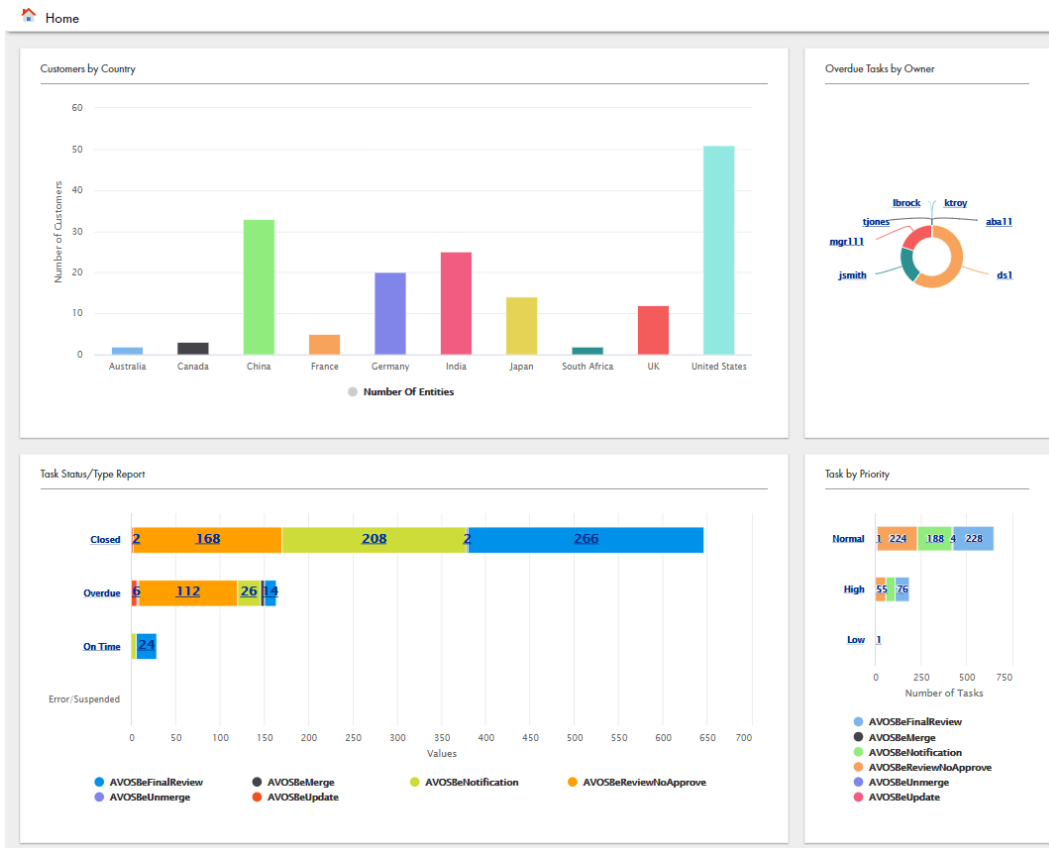
## Chart Component

In the Provisioning tool, you can create Chart components. Chart components display a graphical representation of data about business entity records, tasks, or any other types of information you collect about your master data.

When you create Chart components, you configure the appearance of the chart and the type of chart that you want to display. You populate your chart with data collected from default reports or custom reports. You can filter and group the report data used in charts. You can also link data in a chart to a drilldown chart or another interface in Data Director, such as the **Query** tab, **Search** tab, or Task Manager.

When you design custom Home page layouts or additional page layouts, you can add Chart components. When users view your custom Home page or additional pages in Data Director, your charts appear.

The following image shows a sample Home page with Chart components:



You can also interact with default reports and create custom reports by using REST APIs.

For more information, see the *Informatica Multidomain MDM Version 10.4 Provisioning Tool Guide*, *Informatica Multidomain MDM Version 10.4 Data Director User Guide*, and *Informatica Multidomain MDM Version 10.4 Business Entity Services Guide*.

## Creating Match Rule Sets in the Provisioning Tool

You can use the Provisioning tool to create match rule sets based on a sample data set and the match training.

During the match training process, review a few matched pairs from the sample data set and confirm whether the pairs match. After the review, the match engine creates a match rule set with a confidence score. If the match confidence score is low, retrain the match engine until you get a high match confidence score.

For more information about creating match rule sets in the Provisioning tool, see the *Multidomain MDM Provisioning Tool Guide*.

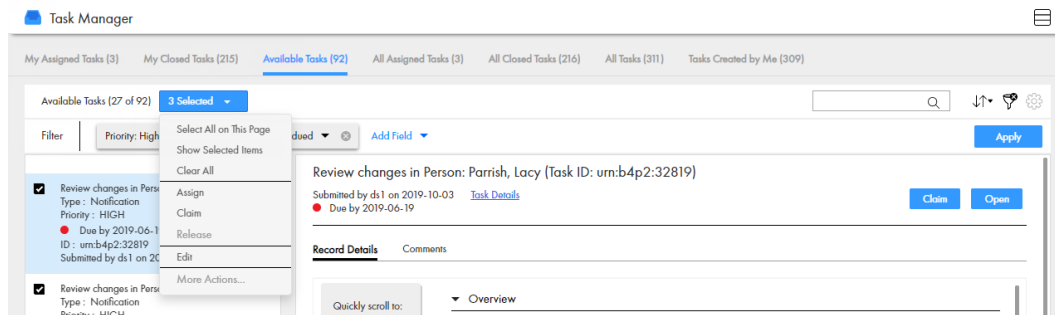
# Manage Multiple Tasks

In Data Director, you can perform task administration actions to manage tasks. You can assign, claim, release, or edit multiple tasks. You can also take actions on multiple tasks, such as approve, reject, or disclaim.

The task administration actions that you can perform depend on your role. All users can manage tasks available to their user role. Users assigned the Task Administrator role can manage all tasks. The Task Administrator role is a new role that you can create and assign to users in the MDM Hub, and then enable in the Provisioning tool.

You can use filters or search to find the tasks that you want to manage. For example, you might want to find high priority tasks related to the John Smith record.

The following image shows an example of the Task Manager and the task administration actions that you can perform:



You can also manage tasks by using REST APIs. To find tasks to manage, you can use the query search parameter with the List Tasks API.

For more information, see the *Informatica Multidomain MDM Version 10.4 Data Director User Guide*, *Informatica Multidomain MDM Version 10.4 Provisioning Tool Guide*, and *Informatica Multidomain MDM Version 10.4 Business Entity Services Guide*.

# Find and Replace Values Across Multiple Records

In Data Director, you can find and replace multiple values across records. For example, you want to replace all records that do not have the gender identity recorded. You find the records and replace it with the correct gender.

The find and replace operation can trigger a review workflow and create an approval task when the `cmx.server.find-replace.task-limit` property value is greater than 0. When the number of records being found and replaced exceed the value set for the `cmx.server.find-replace.task-limit` property, a review and approval task is triggered.

You can also find and replace values across records by using REST APIs.

For more information, see the *Informatica Multidomain MDM Version 10.4 Data Director User Guide*, *Informatica Multidomain MDM Version 10.4 Configuration Guide*, and *Informatica Multidomain MDM Version 10.4 Business Entity Services Guide*.

# Import New Records

In Data Director, you can import new data and relationships in bulk from an Excel or a CSV source file. Data Director uses artificial intelligence to identify and map the source file fields to the best target fields. After you import or update data, use the **My Jobs** feature to view and download the import summary report.

You can also import new data and relationships in bulk using REST API's.

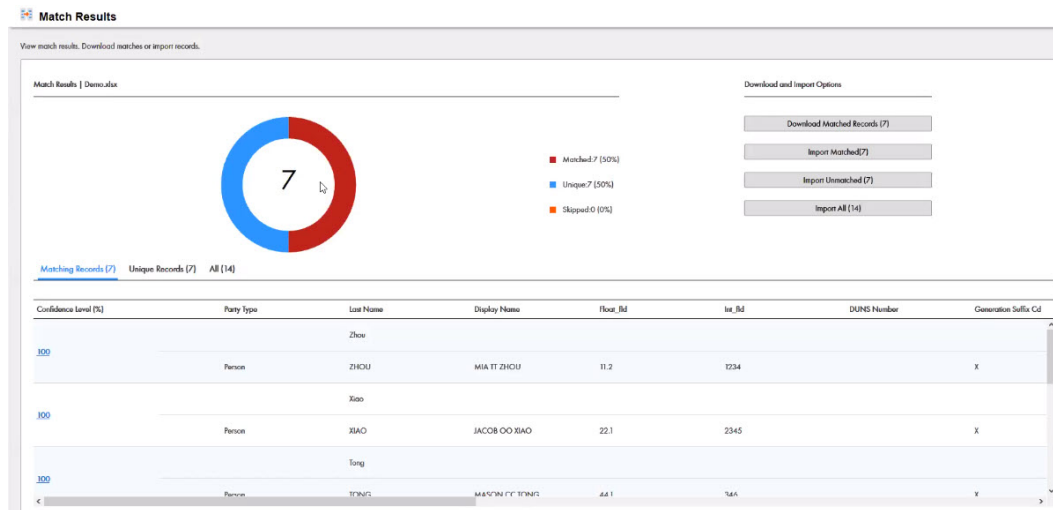
For more information, see the *Informatica Multidomain MDM Version 10.4 Data Director User Guide*, and *Informatica Multidomain MDM Version 10.4 Business Entity Services Guide*.

# Matching New Records with Existing Records

In Data Director, you can compare records that you import with existing records. The match process identifies matched and unmatched records. You can import the unmatched records, delete the records or import all records.

After you import the file, Data Director generates match results that display the matched, unique, skipped, and all records. You can review the results to determine the records you want to import or download.

The following image shows an example of the Match Results after you import new records and compare with existing records:



You can also match imported records by using REST APIs.

For more information, see the *Informatica Multidomain MDM Version 10.4 Data Director User Guide*, and *Informatica Multidomain MDM Version 10.4 Business Entity Services Guide*.

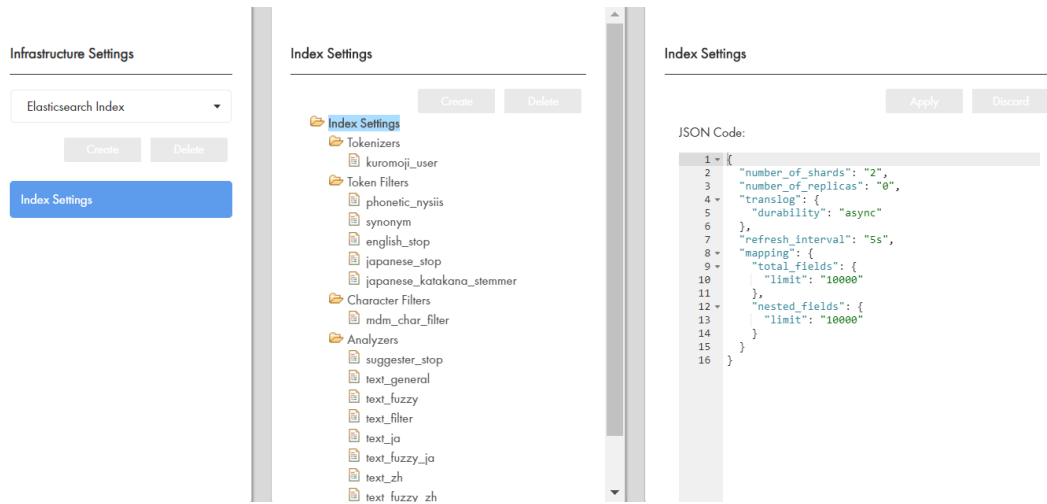
# Triggering Task Review Process

You can configure tasks to trigger a review workflow when users update and import new records. The workflow is reviewed by a user role with privileges, such as, a manager. Use the Provisioning tool to configure a review workflow.

# Custom Elasticsearch Index Settings

If the Elasticsearch index settings that Informatica provides does not meet your requirements, use the Provisioning tool to create custom Elasticsearch index settings. You can configure custom analyzers, tokenizers, token filters, and character filters for the Elasticsearch index.

The following image shows the **Infrastructure Settings** page with the **Index Settings** tree view and the JSON code for the Index Settings node:



For more information about the Elasticsearch index settings, see the *Multidomain MDM Version 10.4 Provisioning Tool Guide* and the *Multidomain MDM Version 10.4 Configuration Guide*.

# Search Filter Display

Use the Provisioning tool to configure search filters and the order in which these appear in the Data Director **Search** page. You can configure the search filters and the display order for specific applications and the associated business entities.

If you upgrade from an earlier version, the filters appear in the same order as they appeared in the existing application configuration. After the upgrade, you can choose to change the display order for the search filters.

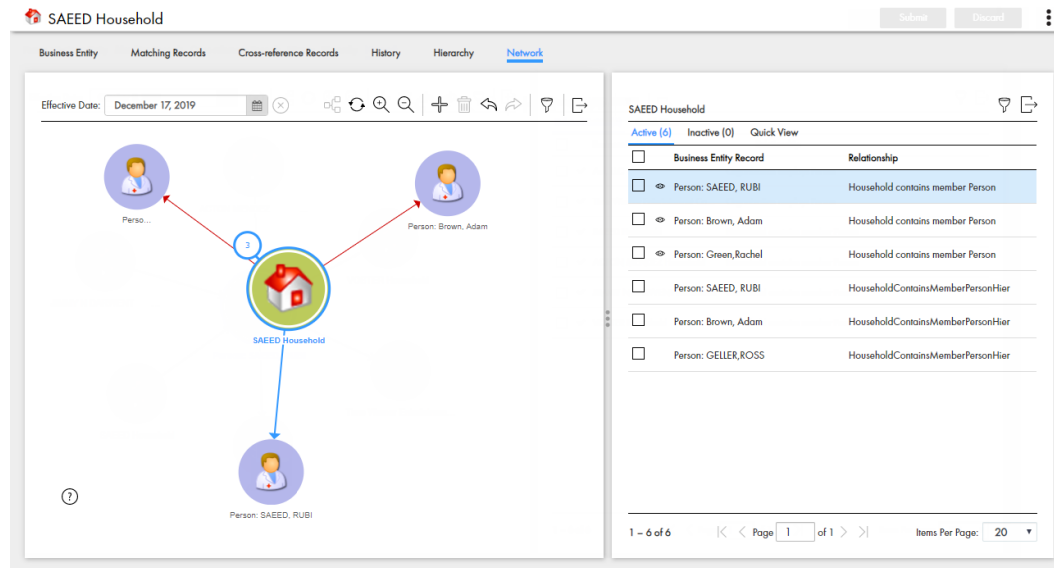
For more information about configuring search, see the *Multidomain MDM Version 10.4 Provisioning Tool Guide*.

# Icons and Colors for Business Entities, Records, and Relationships

When you model business entities in the Provisioning tool, you can configure the color and icon used to represent the business entity in Data Director. You can also configure the icon used to represent the business entity record. When you define hierarchy relationships or network relationships, you can define the color of

relationships. In Data Director, your color and icon configurations appear when you interact with records or when you view relationships in the **Hierarchy** view and **Network** view.

The following image shows the **Network** view with an icon for the SAEED Household:

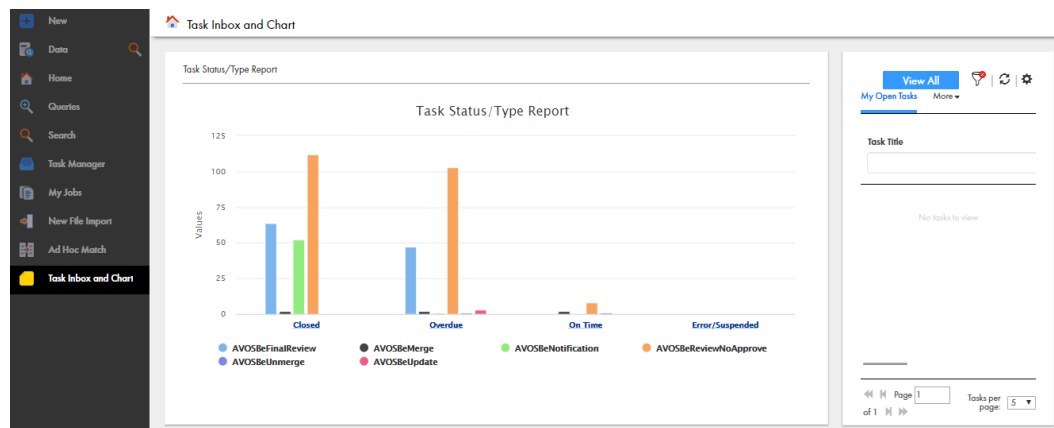


## Additional Pages

You can use the Provisioning tool to create additional page layouts in the Layout Designer that provide access to more information that users need. For example, you might design an additional page with primary, secondary and custom components to assist users in accessing more charts or external web applications.

When you create an additional page layout, you specify the purpose and access. For example, you might design an additional page with a task inbox and chart for a manager user role.

The following image shows an example additional page in Data Director with the **Task Inbox** component and the **Chart** component configured:



For more information about creating and updating additional pages, see the *Multidomain MDM Version 10.4 Provisioning Tool Guide*.

# Hyperlinks in Business Entity Views

In Data Director, the business entity views can display some types of text as hyperlinks. To display text in the business entity fields as hyperlinks, use the Provisioning tool and configure the fields in the business entity models.

The following types of text in the business entity fields can appear as hyperlinks:

- Web URL
- File URI
- FTP link
- Email address

For more information about configuring hyperlinks, see the *Multidomain MDM Version 10.4 Provisioning Tool Guide*.

## Installer Enhancements

The Multidomain MDM installer is updated to enhance user experience.

The installer includes the following enhancements:

- Revised user interface text to simplify the installation process
- New and revised help text to help understand and provide the correct field values
- New window, **Configure server details for the Hub Console**, where you can specify the server details that the Hub Console requires to connect to the Hub Server machine

## Hub Server Properties

You can use the following Hub Server properties to control the run-time behavior of the MDM Hub.

Configure the Hub Server properties in the `cmxserver.properties` file.

The following table describes the Hub Server properties introduced in 10.4:

Hub Server Property	Description
<code>cmx.server.be-import.task-limit</code>	Specifies the maximum number of records users can import for the task approval workflow to trigger. For example, if you set the property to <code>cmx.server.be-import.task-limit=10000</code> a task approval workflow triggers when a user imports up to ten thousand records. If a user attempts to import more than ten thousand records, the task approval workflow does not trigger and displays an error.
<code>cmx.server.find-replace.record-limit</code>	Specifies the maximum number of records users can find and replace in a bulk operation. For example, if you set the property to <code>cmx.server.find-replace.record-limit=10000</code> users can find and replace up to a maximum of ten thousand records.
<code>cmx.server.find-replace.task-limit</code>	Specifies the maximum number of replaced records that trigger the task approval workflow. For example, if you set the property <code>cmx.server.find-replace.task-limit=500</code> a task approval workflow triggers when a user replaces up to five hundred records. If a user attempts to replace more than five hundred records, an error displays.
<code>cmx.server.find-replace.entity-record-limit</code>	Specifies the maximum number of records users can copy from the Smart search screen to the Find and Replace screen. For example, if you set the property <code>cmx.server.find-replace.entity-record-limit=1000</code> users can copy up to ten thousand records from the Smart search screen to the Find and Replace screen. If a user attempts to copy more than ten thousand records, an error displays.
<code>cmx.file_import.job_group.ttl</code>	Specifies the maximum time a file import job group is stored by the MDM Hub before it is deleted. You must add a suffix after the value. The following are the suffix options: day, hour, min or sec. For example, if you set the property <code>cmx.file_import.job_group.ttl=180day</code> the import job group is saved in MDM Hub for one hundred and eighty days.
<code>cmx.file_import.job_group_control.ttl</code>	Specifies the maximum time a file import job group control log is stored in the MDM Hub before it is deleted. The following are the suffix options: day, hour, min or sec. For example, if you set the property <code>cmx.file_import.job_group_control.ttl=30day</code> the import job group control log is saved in MDM Hub for thirty days.
<code>cmx.file_import.mapping.temp.ttl</code>	Specifies the maximum time to save a file import mapping in the MDM Hub temporary storage before it is deleted. The following are the suffix options: day, hour, min or sec. For example, if you set the property <code>cmx.file_import.mapping.temp.ttl=20min</code> the import job mapping is saved in MDM Hub for twenty minutes.



Hub Server Property	Description
<code>cmx.file_import.mapping.system.ttl</code>	Specifies the maximum time to save a file import mapping in the MDM Hub permanent storage before it is deleted. The following are the suffix options: day, hour, min or sec. For example, if you set the property <code>cmx.file_import.mapping.system.ttl=20day</code> the import job mapping is saved in MDM Hub for twenty days.
<code>activevos.jndi</code>	Optional. Must be added manually. Specifies the JNDI lookup string to connect report services to ActiveVOS. The default JNDI lookup string is <code>java:/jdbc/ActiveVOS</code> . If you edited the ActiveVOS EAR files to customize the JNDI lookup string, use this property to specify the custom JNDI lookup string.
<code>cmx.match.training.confidence.threshold</code>	Optional. Specifies the minimum match confidence score required to create a match rule set in the Provisioning tool.
<code>cmx.match.training.data.encoding</code>	Optional. Configures encoding for match training in the Provisioning tool.
<code>cmx.server.hierarchy.max-search-depth</code>	Maximum depth searched when you use hierarchy REST APIs to find a hierarchy path. Default value is 100.
<code>cmx.server.hierarchy.max-search-width</code>	Maximum width of the searched hierarchy to include when you use the hierarchy REST APIs to export. Default value is 1000000.
<code>com.informatica.mdm.bulk.relationship.changes.limit</code>	Maximum number of changes in a request when you use the bulk task administration REST APIs. Default value is 1000.
<code>cmx.task.search.records.return</code>	Controls the Elasticsearch pagination when users search for tasks in the Task Manager of Data Director with business entities. Default is 1000.
<code>com.informatica.mdm.sifapi.xref.edit.sys0.only</code>	Specifies whether to create edit cross-reference records through all source systems including the Admin source system.

For more information about setting Hub Server properties, see the *Multidomain MDM Version 10.4 Configuration Guide*.

## Process Server Property

Use the Process Server property `com.informatica.mdm.sifapi.xref.edit.sys0.only` to specify whether to create edit cross-reference records through all source systems including the Admin source system. Configure the property in the `cmxcleanse.properties` file.

For more information about setting the Process Server property, see the *Informatica Multidomain MDM Version 10.4 Configuration Guide*.

# CHAPTER 10

## 10.4 What's Changed

This chapter includes the following topics:

- [Elasticsearch Installer, 50](#)
- [Application Editor, 50](#)
- [Searchable Field Options, 51](#)
- [Search Query Results Options, 51](#)
- [Hub Console Launch, 51](#)
- [Communication Protocol, 51](#)
- [External Business Entity Services Calls and Applications, 52](#)
- [Unmerge, 52](#)
- [Obsolete Hub Server Properties, 52](#)
- [Obsolete Process Server Properties, 53](#)
- [REST APIs, 53](#)

### Elasticsearch Installer

Effective in version 10.4, the Multidomain MDM installer package does not include the Elasticsearch installer. You must download the supported version of the Elasticsearch installer from the Elastic website.

Previously, the Elasticsearch installer was included in the Multidomain MDM installer package.

### Application Editor

Effective in version 10.4, the Applications page in the Provisioning tool is enhanced. The business entity views that you configure to display search results, appear under **Search Configuration** in the tree view. After business entity views are configured for search results, you can expand and collapse the **Search Configuration** node.

Previously, all the business entity views that you configured to display search results were listed in the properties panel and not in the tree view panel.

**Upgrade Note:** If you upgrade from an earlier version, the business entity views that you configured to display search results now appear under the **Search Configuration** node.

## Searchable Field Options

Effective in version 10.4, the Provisioning tool no longer includes the **Searchable** field options, **Language** and **Fuzzy**, for business entity fields. To configure fuzzy search and the language of the search strings, configure Elasticsearch analyzers.

Previously, you could configure fuzzy search and the language of the search strings as **Searchable** field options.

For more information about the **Searchable** field options and Elasticsearch analyzers, see the *Multidomain MDM Version 10.4 Provisioning Tool Guide*.

## Search Query Results Options

Effective in version 10.4, you can configure search query results to show or hide pending records.

Previously, you could not hide pending records that appeared in search query results.

For more information about search query results, see the *Multidomain MDM Version 10.4 Data Director User Guide*.

## Hub Console Launch

Effective in version 10.4, the Hub Console is downloaded to the client desktop as a JAR file. The Hub Console URL and your user credentials remain the same.

Previously, the Hub Console was downloaded to the client desktop as a Java Web Start application. Oracle no longer supports Java Web Start.

## Communication Protocol

Effective in version 10.4, the MDM environment no longer supports EJB protocols. You must use the HTTP or HTTPS protocol for communication between the Hub Server and the Data Director screens based on the Entity 360 Framework.

To set the communication protocol, use the `-De360.connection.channel` Java option.

For more information about JVM settings, see the *Multidomain MDM Version 10.4 Installation Guide* and *Multidomain MDM Version 10.4 Upgrade Guide*.

# External Business Entity Services Calls and Applications

Effective in version 10.4, Multidomain MDM uses certificate-based authentication to authenticate external business entity services calls and applications. You need to configure a trusted application user for external calls and applications. Also, EJB is not supported for external calls. You must use the HTTP communication protocol instead.

Previously, you could use user credentials for the authentication of external calls and applications and base the external calls and applications on EJB.

**Upgrade Note:** If you used the BESEExternalCall sample code and the libraries included in the Resource Kit to implement custom business entity services and applications, upgrade your external calls and applications.

For more information about certificate-based authentication and application users, see the *Multidomain MDM Version 10.4 Security Guide*. For information about upgrading your external calls and applications, see the *Multidomain MDM Version 10.4 Upgrade Guide*.

## Unmerge

Effective in version 10.4, you can configure Multidomain MDM to create edit cross-reference records for source systems other than the Admin source system. After this configuration, edit cross-reference records are created during PUT calls for all source systems. A cross-reference record does not unmerge if all the other cross-reference records for the base object are edit cross-reference records, which are the result of PUT calls.

Previously, edit cross-reference records were created only for the Admin source system. If PUT updates came from source systems other than the Admin source system, a cross-reference record was unmerged even though all the other cross-reference records for that base object were the result of PUT calls. This was because MDM did not identify these cross-reference records that were the result of PUT calls as edit cross-reference records.

## Obsolete Hub Server Properties

Effective in version 10.4, the Hub Server properties that were required for Java Web Start and the Solr engine are obsolete.

The following Hub Server properties are obsolete because Java Web Start is not required to launch the Hub Console:

- `cmx.appserver.jnlp.protocol`
- `cmx.web.console.session.download.timeout`
- `jnlp.initial-heap-size`
- `jnlp.max-heap-size`

The following Hub Server properties are obsolete because Solr is not supported:

- `cmx.ss.engine`

- `cmx.ss.dirtyIndex.disable`

If an obsolete property remains in the properties file after you upgrade, the property is ignored. You can safely remove the property from the file.

## Obsolete Process Server Properties

Effective in version 10.4, the following Process Server properties are obsolete because Solr is not supported:

- `cmx.ss.engine`
- `solr.allowAdminConsole`
- `pingSolrOnStartup`
- `zookeeper.tickTime`
- `search.provisioning.maxshards`
- `facet.infacount`

If an obsolete property remains in the properties file after you upgrade, the property is ignored. You can safely remove the property from the file.

## REST APIs

Effective in version 10.4, the MDM Hub uses Swagger to list all the REST web services with URLs and parameters..

Previously, the MDM Hub used Web Application Description Language (WADL) to list all the REST URLs and parameters.

For more information about the REST APIs, see the *Informatica Multidomain MDM Business Entity Services Guide*.

# Part III: Version 10.3 - 10.3 HotFix 3

This part contains the following chapters:

- [Version 10.3 HotFix 3, 55](#)
- [Version 10.3 HotFix 2, 59](#)
- [Version 10.3 HotFix 1, 63](#)
- [10.3 What's New, 70](#)
- [10.3 What's Changed, 83](#)

# CHAPTER 11

## Version 10.3 HotFix 3

This chapter includes the following topics:

- [Notices, 55](#)
- [What's New, 56](#)
- [What's Changed, 56](#)

### Notices

#### Support Changes

This section describes the support changes in version 10.3 HotFix 3.

##### Oracle Database 19c Support

Oracle Database 19c is supported for Multidomain MDM 10.3 HotFix 3.

##### Deprecated Support for Adobe Flash Player

Effective in version 10.4 HotFix 1, Informatica Data Director with subject areas does not require Adobe Flash Player.

Support for Adobe Flash Player is deprecated. Adobe announced that it would end support for Flash Player at the end of 2020.

For more information about Data Director with subject areas, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director User Guide*.

##### Deprecated Support for Informatica Data Controls

Effective in version 10.4 HotFix 1, support for Informatica Data Controls (IDC) for Data Director with subject areas is deprecated. Informatica intends to drop support for IDC in a future release.

##### Hierarchy View in Internet Explorer 11

Effective in version 10.3 HotFix 3, you cannot open the Hierarchy view in Internet Explorer 11. For information about supported browsers, see the Product Availability Matrix on the Informatica Network:

<https://network.informatica.com/community/informatica-network/product-availability-matrices/>

# What's New

## Migrate Bundle Button

In the Data Director Configuration Manager, the migrate bundle button localizes the metadata of records that belong to a subject area and are migrated to business entity records.

For more information about migrating the bundle, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director Configuration Manager Guide*.

## Hub Server Properties

You can use the following Hub Server property to control the run-time behaviour of the MDM Hub:

### **cmx.e360.submit\_all**

Optional. Specifies whether Data Director must submit all the fields to the Hub Server for validation and save the edits to any field of a business entity record. Default is false.

Configure the Hub Server properties in the `cmxserver.properties` file.

For more information, see the, *Informatica Multidomain MDM Version 10.3 HotFix 3 Hub Configuration Guide*.

# What's Changed

## Elasticsearch Installer

Effective in version 10.4 HotFix 1, you must download the supported version of the Elasticsearch installer from the Elastic website.

Previously, the Elasticsearch installer was included in the Multidomain MDM installer package.

## Support for Elasticsearch 6.8.6

Effective in version 10.4 HotFix 1, the search operation requires Elasticsearch version 6.8.6.

For more information about upgrading to Elastic Search 6.8.6, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Upgrade Guide*.

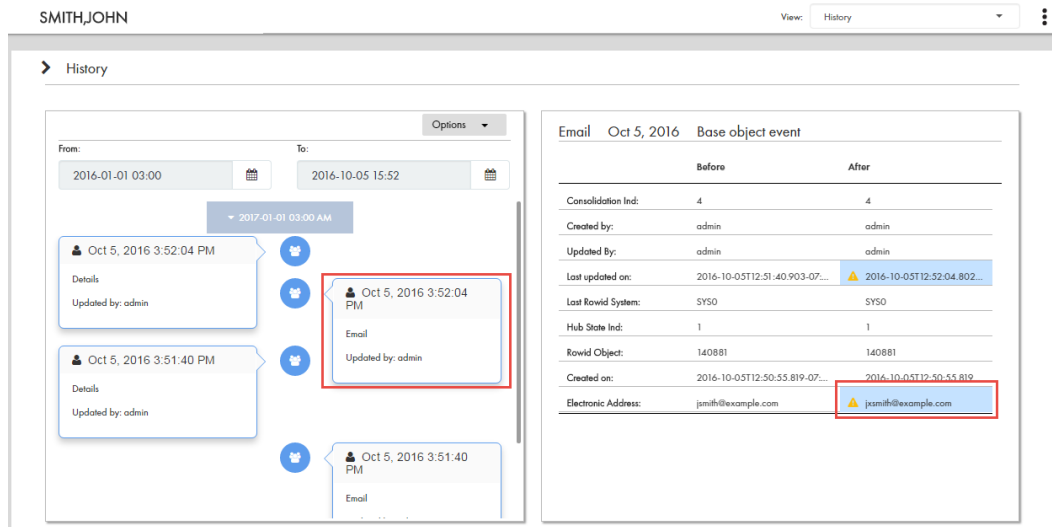
## History View

Effective in version 10.4 HotFix 1, Data Director has a new user interface for the History view and does not require Adobe Flash Player. You can use the **History** view to view the data changes that a record has undergone. Each data changes appears as an event in the **History** view.

The **History** view does not display the history of relationship records.

The following image shows the new user interface for the **History** view in Data Director:





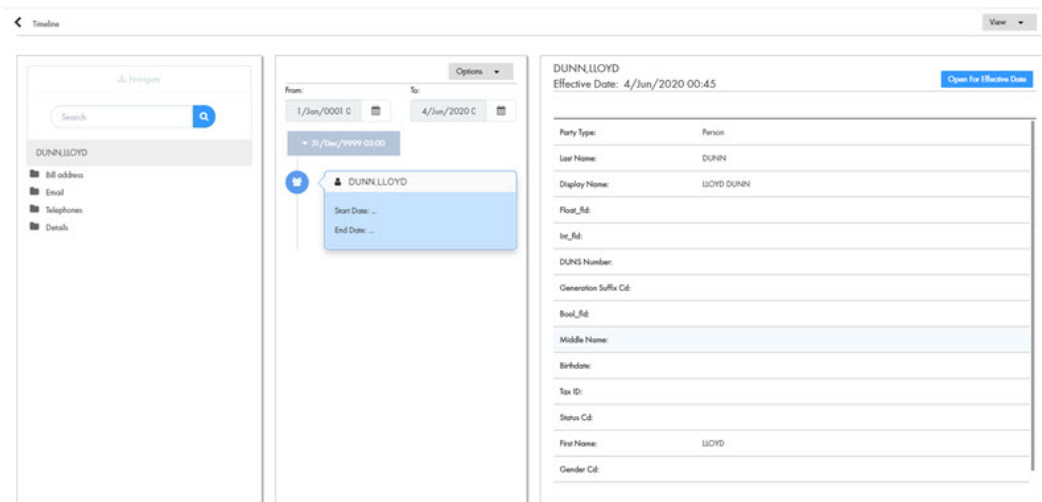
For more information about the **History** view, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director User Guide*.

## Effective Period View

Effective in version 10.4 HotFix 1, Data Director has a new user interface for the **Effective Period** view and does not require Adobe Flash Player. You can use the **Effective Period** view to investigate data with effective dates.

The **Effective Period** view does not display the timeline for a relationship. The timeline for a relationship appears in the **Network** layout of the **Hierarchy** view.

The following image shows the new user interface for the **Effective Period** view in Data Director:



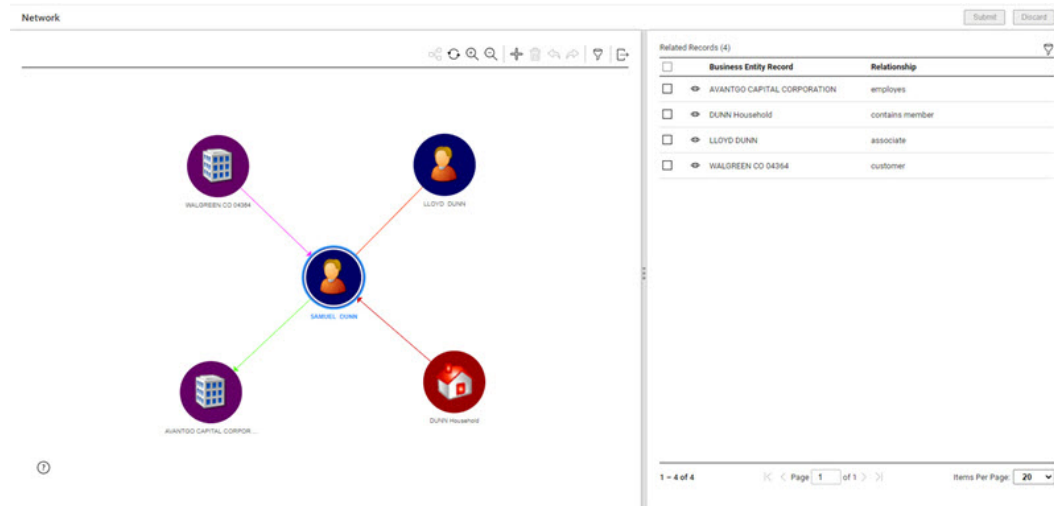
For more information about the **Effective Period** view, see the *Informatica Multidomain MDM Version 10.4 HotFix 1 Data Director User Guide*.

## Hierarchy View

Effective in version 10.3 HotFix 3, when you open a record in the **Hierarchy** view, the record and relationships appear in the **Network** layout. The user interface of the **Network** layout does not require Adobe Flash Player.

Use the **Network** layout to view, create, and manage the network of relationships for a record. You can view the relationships in a network for an effective date or, you can show or hide relationships in the network. You can also export the network graph. You cannot change the layout of the records and relationships.

The following image shows the **Hierarchy** view in Data Director:



For more information about the **Network** layout, see the, *Informatica Multidomain MDM Version 10.3 HotFix 3 Data Director User Guide*.

# CHAPTER 12

## Version 10.3 HotFix 2

This chapter includes the following topics:

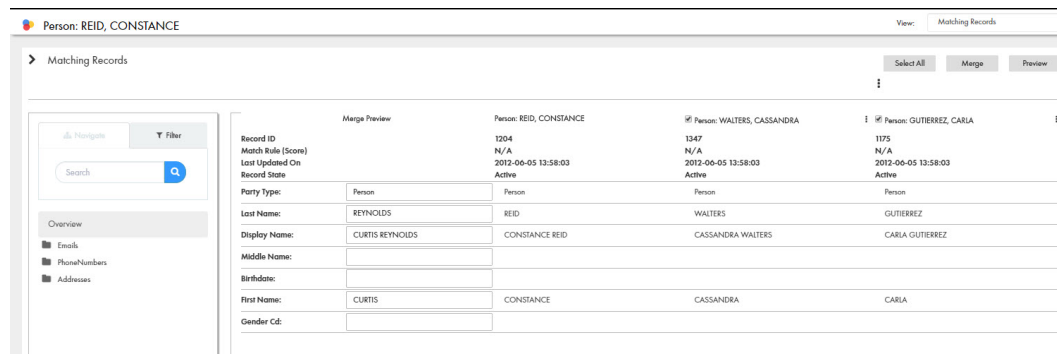
- [What's New, 59](#)
- [What's Changed, 60](#)

### What's New

#### Select Multiple Records in the Matching Records View

In the **Matching Records** view, you can click the **Select All** button to select multiple records.

The following image shows the **Matching Records** view with the **Select All** button:

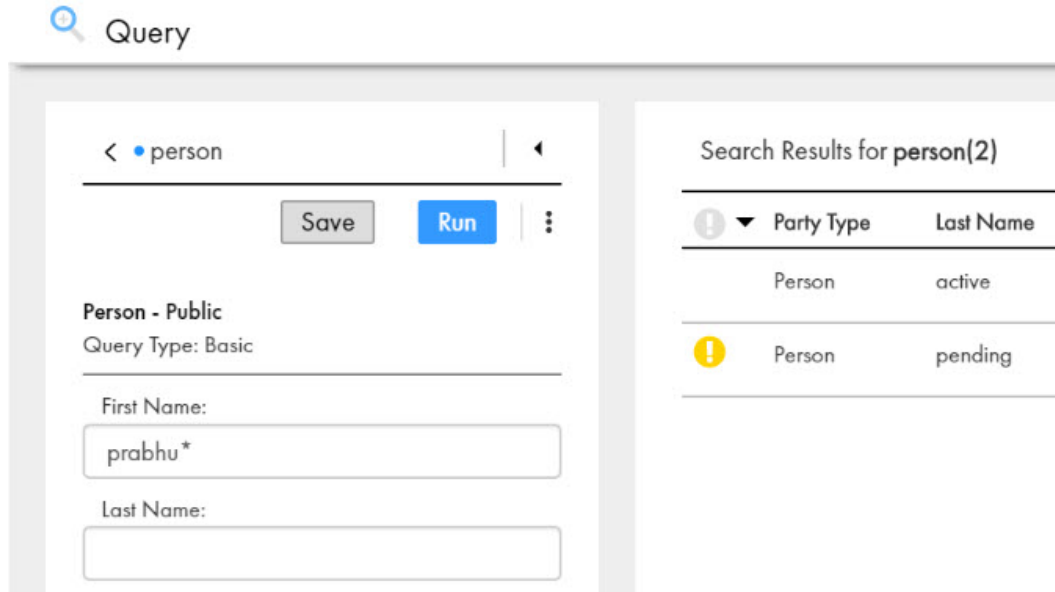


Previously, in the **Matching Records** view, you had to select one record at a time.

## Pending Records Icon in the Search Results

When you perform a search in Data Director (Entity 360), the search results display active and pending records. An icon displays next to all pending records. You can sort all pending records.

The following image shows the pending record icon next to records with pending status:



Previously, Data Director (Entity 360) displayed all active and pending records together and you could not sort records.

## Informatica Address Doctor Version 5.16

Informatica MDM Multidomain Edition supports Informatica AddressDoctor version 5.16.

## What's Changed

### Enhanced Read Database Cleanse Function

The Read Database cleanse function supports concurrent data mapping when the process server is configured to run in a multi-threaded environment.

### Query Search with Special Characters

You can perform a query search with special characters. The search results display all records that contain special characters. Use the special characters at the beginning, end or in between the query search string. For example, if you want to search for James, you can specify Ja\$@! or !\$%ES.

## SSL Connection to Oracle Databases

Connections to the Oracle database are secured with a Secure Socket Layer (SSL).

In the `c_repos_database.connect_url` table, configure the following connection URL:

```
jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL=TCPS)(HOST=localhost)(PORT=2484))
(CONNECT_DATA=(SERVICE_NAME=orcl)))
```

In previous releases, you configured the `c_repos_database.connect_url` table, with the following connection URL:

```
jdbc:oracle:thin:@localhost:1521:orcl
```

## Smart Search Stores Latest Search Entity

You can use smart search to filter records and select a business entity in a user login session. When you login to a new user session, the search results display the filter value of the previous login session.

## Java Virtual Machine Settings

To connect Data Director and Entity 360 applications to the MDM Hub Server, configure the Java Virtual Machine (JVM) by setting the following Java options:

### Fully Qualified Domain Name

If your environment uses the HTTPS communication protocol and the security certificate is issued to a Fully Qualified Domain Name (FQDN), configure the Java Virtual Machine (JVM) by setting the following Java option:

#### **-De360.mdm.host**

Specify the FQDN displayed in the security certificate.

### Connection Protocol

For the Entity 360 application to connect to the MDM Hub Server, configure the Java Virtual Machine (JVM) by setting the following Java options:

#### **-De360.connection.channel**

Specifies the communication protocol the Entity 360 application uses to communicate with the MDM Hub Server. Specify whether the communication protocol to use is EJB, HTTP or HTTPS. Default is - `De360.connection.channel=http`. Ensure you set the supporting application server host property - `De360.connection.channel=http`. Ensure you set the supporting application server host property - `De360.mdm.host` and application server port property - `De360.mdm.port` to the default values.

You must set the following application server host and port Java options:

#### **-De360.mdm.host**

Entity 360 application server host. Specify the host used by the Java option.

#### **-De360.mdm.port**

Entity 360 application server port. To avoid conflicts, it is recommended to use the default port for the JVM.

For more information about JVM settings, see the *Informatica Multidomain MDM Version 10.3 HotFix 2 Installation Guide* and *Informatica Multidomain MDM Version 10.3 HotFix 2 Upgrade Guide*.

## Data Encryption

Effective in version 10.3 HotFix 2, encrypted match columns can securely participate in fuzzy match and fuzzy search operations. Configure the match fields required for these operations in the data encryption properties file.

Previously, encrypted match columns did not participate in fuzzy match operations.

For more information, see the *Informatica Multidomain MDM Version 10.3 HotFix 2 Configuration Guide*.

# CHAPTER 13

## Version 10.3 HotFix 1

This chapter includes the following topics:

- [Oracle Database 18c Support, 63](#)
- [Red Hat JBoss Enterprise Application Platform 7.1 Support, 63](#)
- [IBM WebSphere Version 9.0 Fix Pack 10 Support, 64](#)
- [Red Hat OpenJDK 8 Support for JBoss, 64](#)
- [Informatica ActiveVOS Version 9.2.4.5 Support, 64](#)
- [Date Format, 64](#)
- [Copy a Business Entity or Business Entity View, 65](#)
- [Custom Task Action Messages, 65](#)
- [Provisioning Tool Performance Enhancement, 65](#)
- [Message Trigger Enhancement, 66](#)
- [Save Handler User Exit Enhancement, 66](#)
- [Hub Server Properties, 66](#)
- [Global Properties, 67](#)
- [Java Virtual Machine Settings for Smart Search with Solr \(for JBoss\), 67](#)
- [What's Changed, 68](#)

### Oracle Database 18c Support

Oracle Database 18c is supported for Multidomain MDM 10.3 HotFix 1.

### Red Hat JBoss Enterprise Application Platform 7.1 Support

You must deploy Multidomain MDM on Red Hat JBoss Enterprise Application Platform (EAP) 7.1. The end of maintenance support by Red Hat for JBoss EAP 6.x is June 2019. Informatica recommends that you upgrade to JBoss EAP 7.1 and Multidomain MDM 10.3 HotFix 1 for continued support, bug fixes, and security patches from Red Hat. Multidomain MDM 10.3 HotFix 1 does not support JBoss EAP versions earlier than 7.1.

# IBM WebSphere Version 9.0 Fix Pack 10 Support

You must deploy Multidomain MDM on IBM WebSphere Application Server Version 9.0 Fix Pack 10. Multidomain MDM 10.3 HotFix 1 does not support WebSphere versions earlier than 9.0 Fix Pack 10.

# Red Hat OpenJDK 8 Support for JBoss

You can run Multidomain MDM 10.3 HotFix 1 on Red Hat OpenJDK 8 in a JBoss application server environment.

Read the Product Availability Matrix (PAM) for information about the supported platforms for Red Hat OpenJDK 8. You can access PAMs at <https://network.informatica.com/community/informatica-network/product-availability-matrices>.

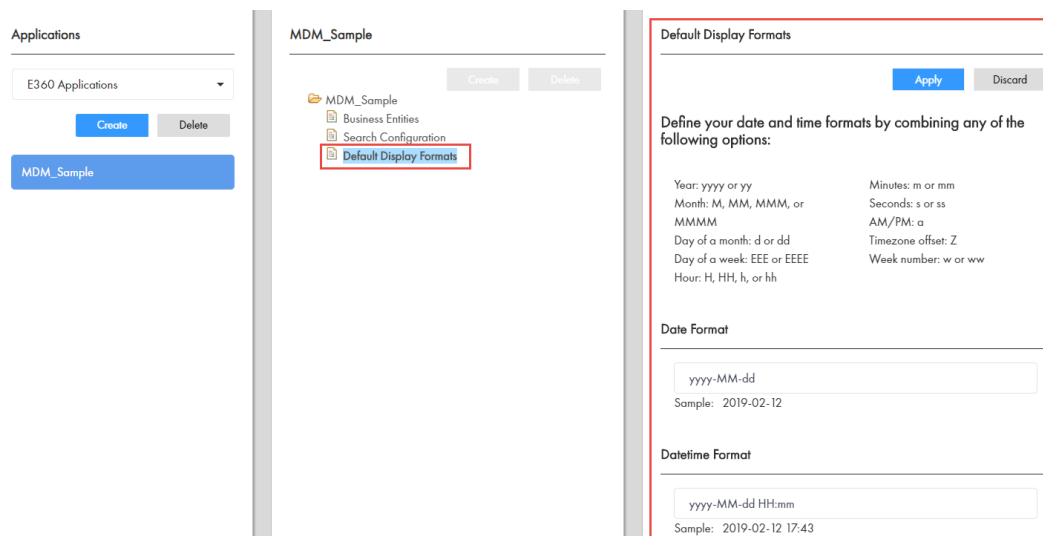
# Informatica ActiveVOS Version 9.2.4.5 Support

Informatica ActiveVOS 9.2.4.5 is supported for Multidomain MDM 10.3 HotFix 1.

## Date Format

You can use the Application Editor in the Provisioning tool to configure the default date format used by the Data Director application. Also, you can configure the display format as Date or Datetime for specific date fields in the business entity and reference entity model. The configured date formats appear in all the record views.

The following image shows the date format fields in **Default Display Formats** panel of the **Applications** page:





Previously, to configure the default date format, you created a `bundleE360.properties` file that contained the default date format property.

For more information, see the *Informatica Multidomain MDM Version 10.3 HotFix 1 Provisioning Tool Guide*.

## Copy a Business Entity or Business Entity View

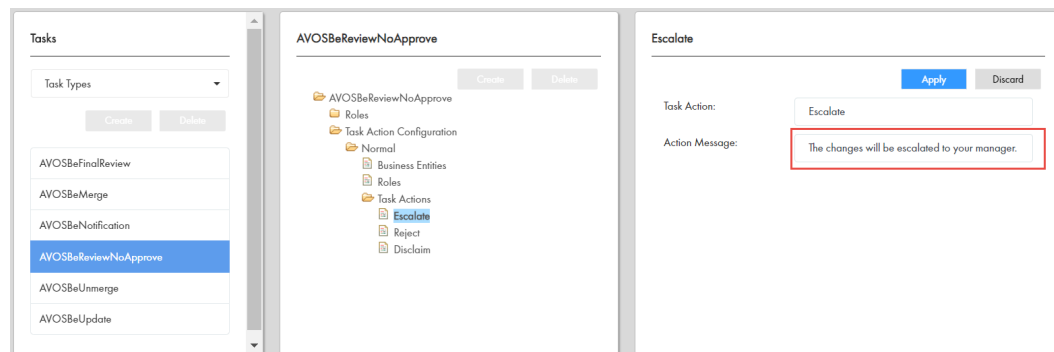
You can copy a business entity or a business entity view and save it with a unique name. The copy inherits the entire model from the original business entity or business entity view. In the copy, you can add, edit, and remove fields from the model as required.

For more information about copying business entities and business entity views, see the *Informatica Multidomain MDM Version 10.3 HotFix 1 Provisioning Tool Guide*.

## Custom Task Action Messages

You can customize the messages that appear when tasks are triggered in Data Director. You can also localize the messages.

The following image shows the **Action Message** field with a custom message:



For more information about configuring and localizing custom task action messages, see the *Multidomain MDM Version 10.3 HotFix 1 Provisioning Tool Guide*.

## Provisioning Tool Performance Enhancement

The performance of the Provisioning tool is enhanced by improving the response time. Changes made in the Provisioning tool are saved and published within a minute.

# Message Trigger Enhancement

When a cross-reference record is restored, the MDM Hub can trigger a message to be placed in the JMS message queues. To set up message triggers for an event that restores a cross-reference record, use the Schema Manager. In the **Events** section of the **Message Triggers** page, select **Restore**, which is the new event included in the section.

For more information, see the *MDM Multidomain Edition Version 10.3 HotFix 1 Configuration Guide*.

# Save Handler User Exit Enhancement

In Save Handler user exits, you can use the `getChangedChildren` method to return modified or added child or grandchild records in a specified base object.

The user exit returns all records that were added, deleted, or updated. You can select the type of changes returned by the user exit. For example, the user exit can return a combination of removed and updated children records.

# Hub Server Properties

You can use the following Hub Server properties to control the run-time behavior of the MDM Hub.

Configure the Hub Server properties in the `cmxserver.properties` file.

## **com.siperian.dsapp.mde.common.idd2coocs.Many2ManyChild.name.version**

Must be added manually. During an upgrade from a version before 10.3, when MDM administrators generate the business entity schema, the uppercase characters in some child-level subject area names change to lowercase. To preserve the case, set the property to `10.2`.

## **cmx.server.put.autopopulate.missing.user.columns.bo.list**

Must be added manually. Set the property when the Nullable property is disabled for the base object columns.

When the Nullable property is disabled for columns, if a record is updated in Data Director or during a SIF PUT operation, a cross-reference record is created with values only for the updated fields. All the other cross-reference record fields, including the fields that must not be null, have null values. During the best version of the truth (BVT) calculation for the record, null values can be the winner for fields that must not be null, and an error occurs.

To ensure that the BVT calculation takes into account the fields that must not be null, set the property value to a comma-separated list of the names of base objects that have columns with the Nullable property disabled. When the property is set, the MDM Hub updates the null values in the cross-reference record with values from the associated base object. This ensures that during BVT calculation, null values are not the winner for fields that must not be null.

## **cmx.server.enrichcopager.thread\_pool**

Must be added manually. Sets the number of threads the `EnrichCoPager` property uses from the thread pool to perform parallel ReadCO operations. Default is 30. If you set the number of threads to 1, the property is disabled.

**cmx.server.enrichcopager.min\_rec\_for\_multithreading**

Must be added manually. Sets the minimum number of records to return before the EnrichCoPager property uses multithreading. Default is 2.

For more information about setting Hub Server properties, see the *Informatica Multidomain MDM Version 10.3 HotFix 1 Configuration Guide*.

## Global Properties

You can use the following global property to control the run-time behavior of the Informatica Data Director application:

**deleteMovedRelInExplorerView**

Determines whether to delete the old relationship when you create a new relationship in Hierarchy Manager explorer view. Set to `false` to give the relationship an end date.

For more information, see the *Informatica Multidomain MDM Version 10.3 HotFix 1 Informatica Data Director Implementation Guide*.

## Java Virtual Machine Settings for Smart Search with Solr (for JBoss)

If you want to configure smart search with Solr for the MDM Hub that you deploy in a JBoss environment, configure the Java Virtual Machine (JVM) by setting the Java options for smart search.

Set the following Java options for smart search:

**-Dmdm.ps.zk.node**

Required if you want to use smart search with Solr. Set this Java option on the JVM for the Process Server that is intended to be the ZooKeeper server. Set to `true`.

**-Dmdm.ps.search.node**

Required if you want to use smart search with Solr. Set this Java option on the JVMs for the Process Servers that will have search processing enabled and function as Solr servers. Set it to `true`.

**-Dsearch.service.port**

Required if you want to use smart search with Solr. Required if you want to install multiple Process Servers on the same machine but on different JVMs and enable smart search on all the Process Servers on the machine. This Java option specifies the port used by the JVM for the search service. To avoid port conflicts, use the default port for the JVM of one Process Server, and set this Java option to the relevant port numbers for the JVMs of the remaining Process Servers.

For more information about JVM settings, see the *Informatica Multidomain MDM Version 10.3 HotFix 1 Installation Guide* and *Informatica Multidomain MDM Version 10.3 HotFix 1 Upgrade Guide*.

# What's Changed

## Search with Apache Solr is Deprecated

Effective in version 10.3, the search functionality in Data Director that used Apache Solr is deprecated. Informatica will drop support for search with Solr in a future release. You can use search with Elasticsearch to find records in Data Director. Elasticsearch is an open-source, full-text search engine.

You must configure search with Elasticsearch, which is packaged with the MDM Hub installer. You can set up Elasticsearch as a single node cluster or as a multi-node cluster to provide distributed indexing and search. For a smooth transition, the APIs that were supported for search with Apache Solr are supported for search with Elasticsearch.

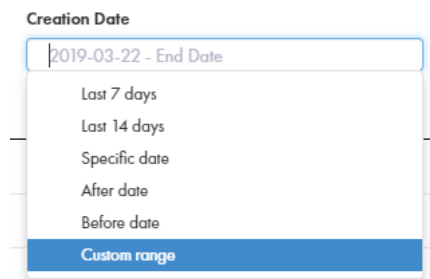
## Task Inbox

Effective in version 10.3 HotFix 1, you can filter tasks in the task inbox based on creation date.

You can select one of the following creation date options from the list:

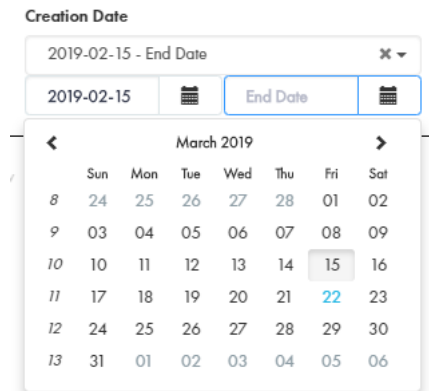
- Last 7 days
- Last 14 days
- Specific date
- After date
- Before date
- Custom range

The following image shows the **Creation Date** filter options:



To filter tasks based on a date range, use the **Custom range** option.

The following image shows the **Custom range** filter option with the start of the range set to 2019-02-15:



Previously, the filter option for the Creation Date column was disabled.

## Related Records Component

Effective in version 10.3 HotFix 1, in the Provisioning tool, a single Related Records component replaces both the Related Records (Edit Mode) and Related Records (View Mode) components. In the new Related Records component, you can configure whether records open in view mode or edit mode. You can also configure whether the relationship direction is honored.

Previously, you had to choose which component to use. Only the Related Records (Edit Mode) component was configurable. The Related Records (View Mode) component was the default, but it was not configurable and it ignored the relationship direction.

For more information about configuring the Related Records component, see the *Multidomain MDM Version 10.3 HotFix 1 Provisioning Tool Guide*.

## Resource Kit Change

In the Resource Kit, the AssignUsersToDatabase script supports uppercase characters in user names.

Previously, the tool enforced lowercase characters only.

# CHAPTER 14

## 10.3 What's New

This chapter includes the following topics:

- [MDM Multidomain Edition is now Multidomain MDM, 70](#)
- [Search and Queries for Business Entities, 71](#)
- [Updated Look and Feel for Data Director, 72](#)
- [Localization of Data Director, 73](#)
- [Record View Layouts, 74](#)
- [Similar Records Component, 75](#)
- [Matching Records View, 75](#)
- [Cross-reference Records View, 75](#)
- [Task Manager, 76](#)
- [Merge Tasks, 76](#)
- [Attach Files to Records, 76](#)
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- [Comments and Attachments for Tasks, 77](#)
- [Security for Business Entities, 77](#)
- [Updated Look and Feel for Data Director, 79](#)
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- [Hub Server Properties Introduced in Version 10.3, 81](#)
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## MDM Multidomain Edition is now Multidomain MDM

Effective in version 10.3, the product name has changed to *Informatica Multidomain MDM*.

# Search and Queries for Business Entities

You can configure Data Director to allow users to find business entity records either by using queries or search. Also, you can configure the use of queries or search for manually adding records to record views. Use the Provisioning tool to configure Data Director.

## Queries

You can now use queries to perform the following tasks:

- Use queries to find records. You can create, save, and edit queries.
- Use wildcards to search for records.
- Perform a fuzzy search or an exact search. You can configure whether the results of a query are case sensitive or not.
- Configure a basic query or an extended query to find records that contain the query values. The basic queries use simple text comparisons to find records. Extended queries use matching logic and match-enabled attributes to find records.
- Export the current or all the columns in a query result to a CSV file.
- Customize the query results to display the columns that you want to view.
- Use the Provisioning tool to configure the views that you want to use for displaying the query results.

For more information, see the *Multidomain MDM Version 10.3 Data Director User Guide* and the *Multidomain MDM Version 10.3 Provisioning Tool Guide*.

## Search

You can now use search to perform the following tasks:

- Use wildcards to search for records.
- Perform a fuzzy search or an exact search. The results of an exact search are not case sensitive.
- Export the current or all the columns in a search result to a CSV file.
- Customize the search results to display the columns that you want to view.
- Use the Provisioning tool to configure the views that you want to use for displaying the search results.

For more information, see the *Multidomain MDM Version 10.3 Data Director User Guide* and the *Multidomain MDM Version 10.3 Provisioning Tool Guide*.

# Updated Look and Feel for Data Director

Data Director uses a navigation bar with vertical tabs. You can now use the **New** tab to add records. The task inbox, Task Manager, and record views are streamlined.

The following image shows the updated look and feel of the navigation bar with an entity tab open:

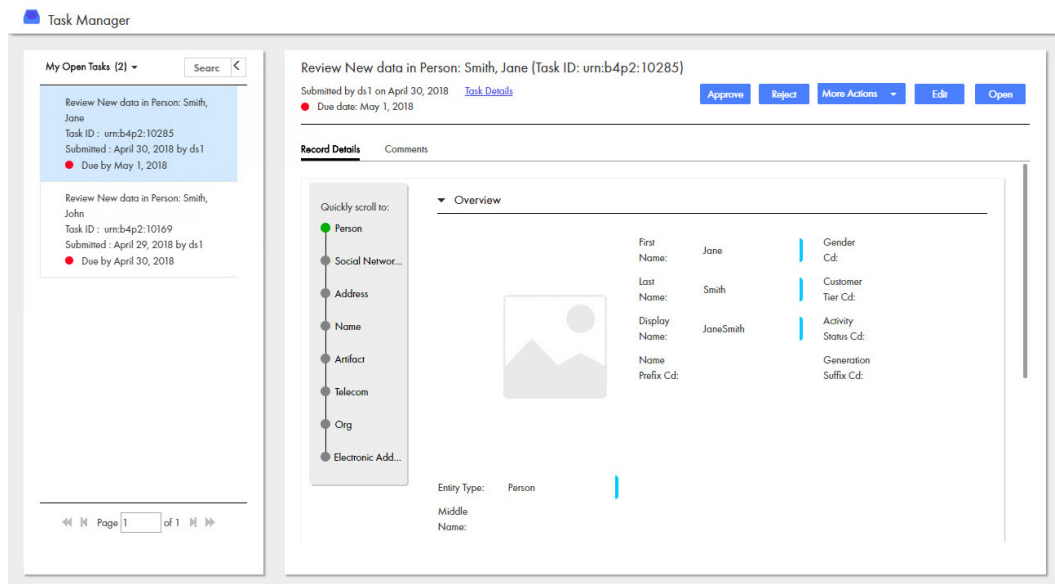


Previously, Data Director had horizontal tabs. You used the **Create** menu in the application header.

## Task Manager

The task panel and the review panel appear side-by-side so you can easily manage and view tasks. Also, the **Comments** tab appears in the review panel. You can view all comments about the task in the **Comments** tab.

The following image shows the updated look and feel of the Task Manager:



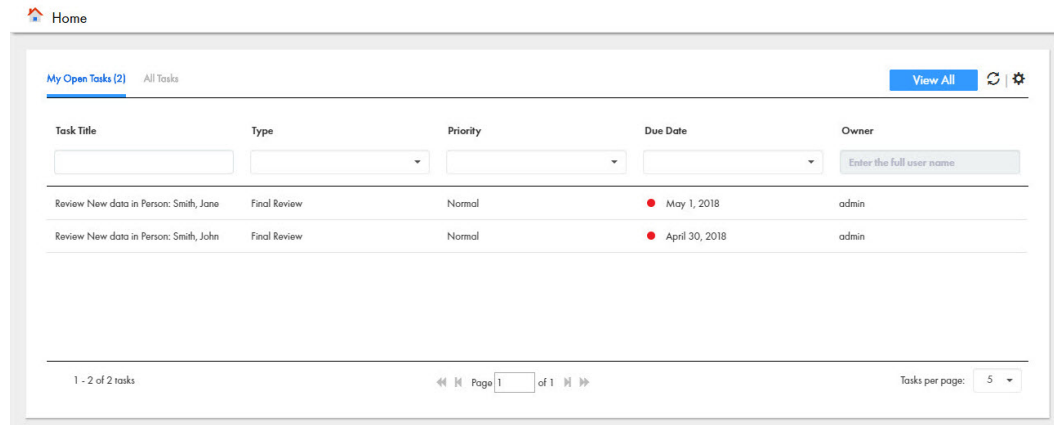
Previously, the task panel appeared above the review panel. Also, comments appeared in the **All Comments** box in the **Task Details** dialog box.

## Task Inbox

The task inbox is streamlined so you can filter and find tasks to work on.



The following image shows the updated look and feel of the task inbox:



For more information, see the *Informatica Multidomain MDM Version 10.3 Data Director User Guide*.

## Localization of Data Director

In Data Director with business entities, you can display elements of the user interface in any supported language. As the MDM administrator, you can localize metadata, labels, error messages, and lookup tables. Data Director supports the following languages:

- English US
- English UK
- Portuguese
- French
- Spanish
- German
- Russian
- Japanese
- Mandarin
- Korean

### Localizing Metadata

You can localize metadata elements of the Data Director user interface to display the language of your choice. Examples of metadata elements are menu names, field names, tasks and business entity names.

To localize metadata, in the Provisioning tool, download the *besMetadata.properties* zip file and edit the *bundle.properties* file for the language that you want to display. For example, for French localization, edit the *bundle\_fr.properties* file. To localize task actions and task types, you must manually edit the values in the *besMetadata.properties* file by using the *taskaction.<action name>* format.

### Localizing Label and Error Messages

You can localize labels and error messages of Data Director to display the language of your choice. To localize labels and error messages, you must run the *LocalizationSetup* script from the Resources Toolkit. The script is part of the MDM Hub installation package.

For more information about localizing labels and error messages, see the *Multidomain MDM Version 10.3 Provisioning Tool Guide*.

## Localizing Lookup Tables

All lookup tables support localization. For example, the Gender, Country, and State lookup tables are mapped to the corresponding Gender, Country and State localization lookup tables.

For more information about localizing metadata, labels, error messages, and lookup tables, see the *Multidomain MDM Version 10.3 Provisioning Tool Guide*.

# Record View Layouts

You can design custom record view layouts to replace the **Matching Records** view, the **Hierarchy** view, and the **History** view. You can also replace the layouts for review tasks, merge tasks, and unmerge tasks.

To design a custom view, use the Provisioning tool. Create a record view layout, and specify a name, purpose, and users who can access the custom view. Then add components to the layout to build the custom view.

In Data Director, the custom views appear in the **View** list. The custom views for tasks appear in the Task Manager in Data Director.

In the custom record view for merging duplicate records and viewing record history, you can choose to display either the full business entity or a business entity view, which is a subset of fields from the business entity. Previously, these record views were default views and displayed the full business entity.

You can choose to configure the basic **Matching Records** view or the advanced **Matching Records** view for a business entity. The basic **Matching Records** view lets you merge only the duplicate parent records. The advanced **Matching Records** view lets you merge the duplicate parent and child records. You can configure one or both the **Matching Records** views for your application.

Previously, you could only design custom record view layouts to replace the default entity view.

For more information about designing record view layouts, see the *Informatica Multidomain MDM Version 10.3 Provisioning Tool Guide*.

## Hiding the Default Record Views

In the Provisioning tool, you can configure a Data Director application to hide the default record views in the **View** list.

The default record views are enabled by default so that users can view and manage records in Data Director. After you design custom views, you can choose to hide the default record views to reduce confusion for your end users.

Previously, you could not hide the default record views in Data Director.

**Note:** When you upgrade Multidomain MDM, the **View** list contains the default record views by default.

For more information about the default record views, see the *Informatica Multidomain MDM Version 10.3 Provisioning Tool Guide*.

# Similar Records Component

You can use the Similar Records component to search for similar records when you create new records. You can decide whether you want to use search or queries to display records in the Similar Records component. You can configure exact or fuzzy queries.

Previously, you could only configure search with the Similar Records component.

For more information about the Similar Records component, see *Multidomain MDM Version 10.3 Provisioning Tool Guide*.

## Matching Records View

The **Matching Records** view is enhanced to make it easier for you to identify and resolving duplicate records.

The following enhancements are made to the Matching Records view:

You can now perform the following tasks:

- Resolve duplicates using the basic **Matching Records** view or the advanced **Matching Records** view. The basic **Matching Records** view lets you merge only the duplicate parent records. The advanced **Matching Records** view lets you merge the duplicate parent and child records. You can configure Data Director to have one or both the **Matching Records** views.
- Show information that might help you in determining duplicates, such as trust scores, and display only the records that you select for merging.
- View the match rule details for the matching records.
- Use breadcrumbs that are added to the matching records to identify the parent of the records to be merged.
- If duplicate records are missing from the **Matching Records** view, you can manually add the records to the view. To find the records that you want to add, use search or queries.
- Remove records that you do not want to merge or are not duplicates.
- Queue records for an automatic merge.
- Finalize the best version of the truth by promoting or overriding the values that you think are correct.
- Before you merge the records, you can preview the result of merging the records.

For more information, see the *Multidomain MDM Version 10.3 Data Director User Guide*.

## Cross-reference Records View

The **Cross-reference Records** view includes breadcrumbs to help you identify the parent records of a cross-reference record. The last record listed in the breadcrumbs trail is the immediate parent of the record that is open in the **Cross-reference Records** view.

# Task Manager

If you have the ActiveVOS abAdmin role assigned, you can see the workflow details of a task in the Task Manager. You can also assign a task that belong to another user of your user group back to the pool so that a different user can claim it.

For more information about the Task Manager, see the *Multidomain MDM Version 10.3 Data Director User Guide*.

## Merge Tasks

The reviewer of a merge task can update the merge task during the review process.

In the review panel, reviewers can perform the following actions that are possible in the **Matching Records** view:

- Add duplicate records that you want to merge.
- Remove records that you do not want to merge.
- Finalize the best version of the truth by selecting fields with correct values or by entering the correct values.

For more information about merge tasks, see the "Participating in Review Processes" chapter in the *Multidomain MDM Version 10.3 Data Director User Guide*.

## Attach Files to Records

When you add or edit a record, you can attach files as the child records to the record. Use the Provisioning tool to configure a business entity field with FileAttachment as the data type. You can then use the business entity field to attach files in a Data Director application.

For more information about the FileAttachment data type, see the *Multidomain MDM Version 10.3 Provisioning Tool Guide*.

## Attach Files to Tasks

You can attach files to tasks. When tasks are configured to support attachments, you can attach a file to any task that you can view. Files attached to tasks appear in the task details, and user that can view the task can view the attachment.

For more information about attaching files to tasks, see the *Informatica Multidomain MDM Version 10.3 Data Director User Guide*.

# Comments and Attachments for Tasks

You can configure whether users must add a comment or attachment when they trigger a workflow or perform task actions. To configure the comment and attachment settings, use the Provisioning tool.

Previously, users could add comments to tasks, but you could not require users to add comments.

## Workflow Triggers

You can configure a workflow trigger to prompt users for comments, attachments, or both. For example, you can configure the unmerge task trigger so that users must add a comment when they trigger unmerge tasks.

## Task Types

You can configure a task type to prompt users for comments, attachments, or both. You can also allow users to attach files from the **Task Details** dialog box. For example, you can configure review tasks so that reviewers must add a comment and attachment when they reject a proposed change to a business entity record. You can configure merge tasks so that reviewers can attach files when they edit the task details.

For more information about comment and attachment for tasks, see the *Informatica Multidomain MDM Version 10.3 Provisioning Tool Guide*.

# Security for Business Entities

You can apply MDM Hub user roles to manage access to records based on business entities. You can also use data filters to manage access to records based on the values in the fields and user roles. If you want to restrict the values that can be added to a field, you can create a list of default values for the field.

For more information about the security options, see the *Multidomain MDM Version 10.3 Provisioning Tool Guide*.

## User Roles and Business Entities

A business entity is a data structure with a root base object and child base objects. When you assign user role permissions to base objects and other resources in the MDM Hub Console, the record views in Data Director inherit the permissions. For example, if you grant the read permission to a user role on the base objects, the user has the same access to business entity records.

If you already have permissions assigned to user roles, you do not need to do anything else to enable the security on business entities. After you upgrade, Data Director automatically reflects the results of the user role permissions.

## User Roles and REST APIs

The APIs are enhanced to support MDM Hub user roles. In all cases, a user must have permission to read a record before the other permissions are processed. The user role permissions are inherited by the business entity, and then the field filters can be used to restrict access to records based on the value in a field.

The following REST APIs return the user role privileges in the <operations> element for objects and relationships:

- GetMetadata
- ListMetadata

For information about how security enhancements affect Data Director, see [“Security for Business Entities” on page 77](#).

For details about the API enhancements for security and data filters, see the *Multidomain MDM Version 10.3 Business Entity Services Guide*.

## Data Filters with User Roles

You can create data filters on fields in a business entity and assign user roles to those filters. Based on the value in the field within a record, the user might or might not be able to see the entire record. You can also create filters on nodes to determine whether a user should have access to the parent record when the node is empty.

**Note:** This feature is similar to data security filters for subject areas, however data filters for business entities are case insensitive.

## Tasks with User Roles

User role privileges apply to the workflow tasks that you create for business entities. A user can take an action on tasks for which they have role privileges. For example, a user can take action on a merge task only if their user role includes the merge privilege.

## Default Values for Business Entities

You can add default values to fields. In Data Director, a single default value appears in the field. A list of default values appears as a drop-down list.

## User Interface Enhancements for Security

When an MDM administrator creates user role privileges, the privileges affect the Data Director user interface. For example, if a user does not have access to a business entity, that user cannot see the business entity or its records.

The following table summarizes the role privileges for business entities and describes how the privileges affect the behavior of the Data Director user interface:

Business Entity Action	Data Director Behavior
Create records	In the <b>New</b> menu, you can see only the types of business entities for which you have permission to create records.
Read records	You can view the records for the business entities that you have permission to read. Other records are inaccessible.
Update records	In a record view, the <b>Edit</b> button is enabled when you have permission to edit business entity records. Otherwise, the <b>Edit</b> button is not visible.
Delete records	The <b>Delete</b> icon is enabled when you have permission to delete business entity records.

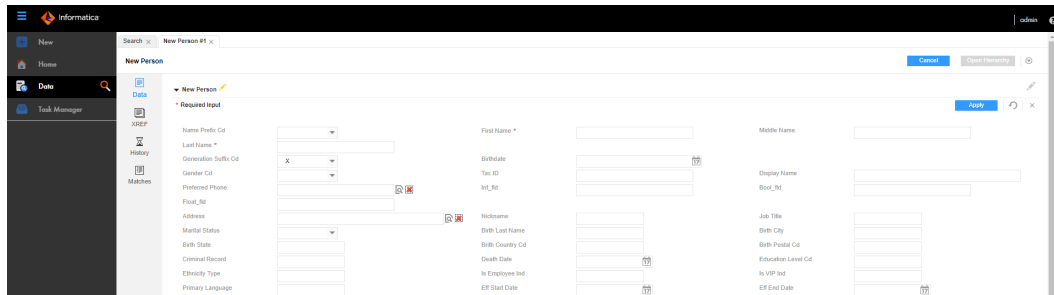
Business Entity Action	Data Director Behavior
Search for records	When searching for business entities by using search, search filters and search results contain only the business entity types that you have permission to view.
Merge and unmerge records	In the <b>Matching Records</b> view, the <b>Merge</b> button and the check boxes at the top of each record are enabled when you have permission to merge and unmerge records. If you add records to the view, the search filters and search results contain records only for the business entities that you have permission to view.

The business entity views inherit the same role privileges as the business entity. For example, if you choose to include a sensitive field in a business entity view, only the users with the role privilege for the record can view or edit it. For information about how user role privileges translate to business entities and business entity views, see the *Multidomain MDM Version 10.3 Provisioning Tool Guide*.

## Updated Look and Feel for Data Director

Data Director uses a navigation bar with vertical tabs. You can now use the **New** tab to add records. The task inbox and Task Manager are streamlined.

The following image shows the updated look and feel of the navigation bar with the **Data** tab open:

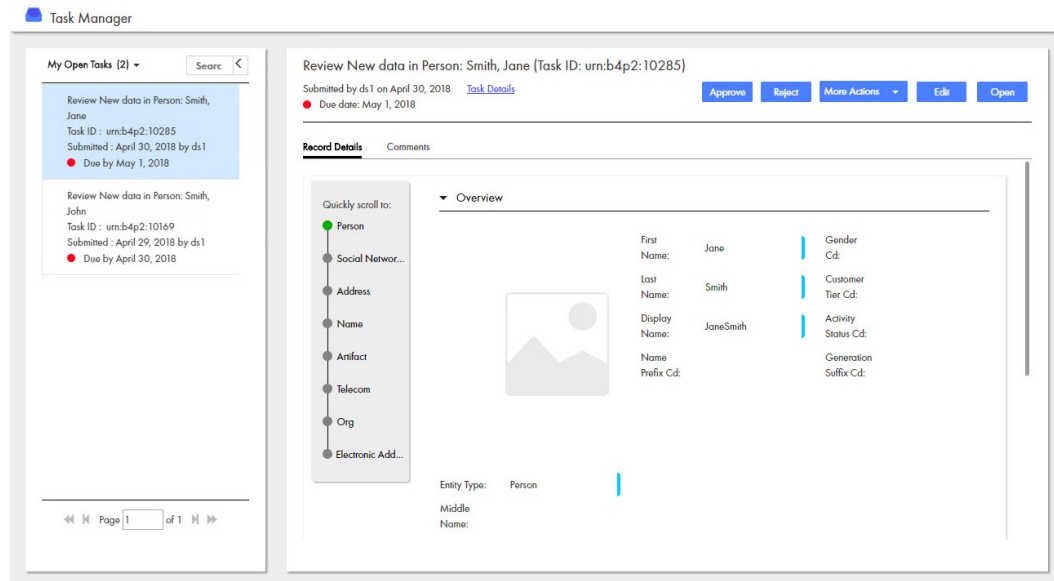


Previously, Data Director had horizontal tabs. You used the **Create** menu in the application header.

### Task Manager

The task panel and the review panel appear side-by-side so you can easily manage and view tasks. Also, the **Comments** tab appears in the review panel. You can view all comments about the task in the **Comments** tab.

The following image shows the updated look and feel of the Task Manager:

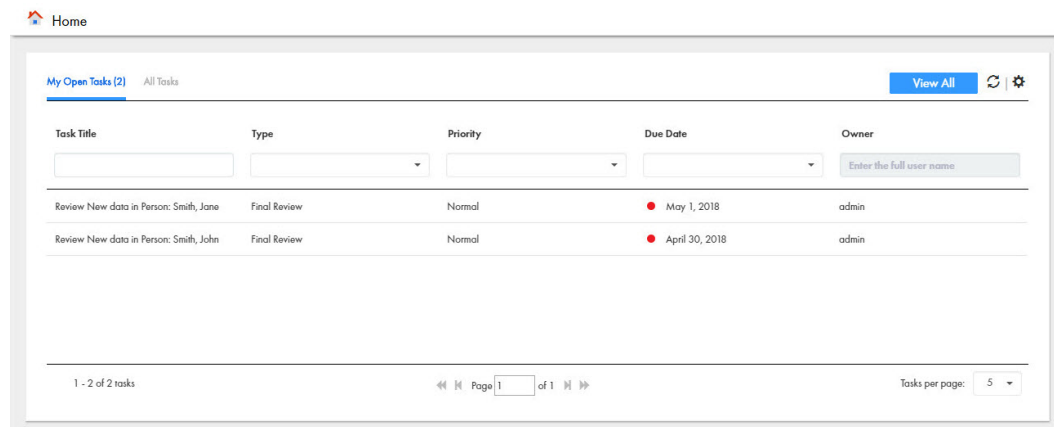


Previously, the task panel appeared above the review panel. Also, comments appeared in the **All Comments** box in the **Task Details** dialog box.

## Task Inbox

The task inbox is streamlined so you can filter and find tasks to work on.

The following image shows the updated look and feel of the task inbox:



For more information, see the *Informatica Multidomain MDM Version 10.3 Data Director User Guide*.

## Attach Files to Tasks

You can attach files to tasks. When tasks are configured to support attachments, you can attach a file to any task that you can view. Files attached to tasks appear in the task details, and user that can view the task can view the attachment.

For more information about attaching files to tasks, see the *Informatica Multidomain MDM Version 10.3 Data Director User Guide*.



# Hub Server Properties Introduced in Version 10.3

You can use the following Hub Server properties to control the run-time behavior of the MDM Hub.

Configure the Hub Server properties in the `cmxserver.properties` file.

## **cmx.server.selective.bvt.enabled**

By default, a Put or Cleanse Put call applies BVT calculations to all fields in a record instead of updating only the fields specified in the SIF request. To specify that the MDM Hub only applies BVT calculation to fields that are part of the SIF request, set this property to `true`. Default is `false`.

## **cmx.file.allowed\_file\_extensions**

Lists the extensions of files that you can attach to a record or task in the Data Director application. By default, you can attach `.pdf` and `.jpg` files. When you specify multiple extensions, separate each value by a comma.

For example, `cmx.file.allowed_file_extensions=pdf,jpg,png,txt,zip,exe`.

## **cmx.file.max\_file\_size\_mb**

Specifies the size limit of files that you can attach in the Data Director application.

**Note:** Data Director applications that use the subject area data model have a static size limit of 20 MB. If you specify a size limit greater than 20 MB, Data Director applications that use the subject area data model uphold the static size limit of 20 MB. Data Director applications that use the business entity data model uphold the size limit defined in the `cmx.file.max_file_size_mb` property.

## **cmx.server.attachment.temp.ttl\_minutes**

Number of minutes after a file is created in the TEMP storage before it expires. Set to 0 to prevent files from expiring. Default is 60.

## **cmx.ss.engine**

Required if you want to use the Elasticsearch engine for search. Manually add the property and set to `es`.

## **ex.max.conn.per.host**

Sets the maximum number of Elasticsearch nodes that you want to connect to the host. Set to the number of Elasticsearch cluster nodes on the host.

## **ex.max.threads**

Sets the maximum number of threads that you want the Apache asynchronous non-blocking receiver to use for each node in the Elasticsearch cluster. Default is 1.

Change the value only when suggested by Informatica Global Customer Support.

## **es.index.refresh.interval**

Sets the interval, in seconds, for Elasticsearch to commit the changes to the data after an Initially Index Smart Search Data batch job is run. The data is available for search after this time interval. Default is 30.

This property impacts the high indexing volume encountered during initial indexing. Change the value only when suggested by Informatica Global Customer Support.

## **ssl.keyStore**

Required if you use the HTTPS port of the application server to configure the Hub Server. Manually add the property. Absolute path and file name of the keystore file.

**ssl.keyStore.password**

Required if you use the HTTPS port of the application server to configure the Hub Server. Manually add the property. Plain text password for the keystore file.

**ssl.trustStore**

Required if you use the HTTPS port of the application server to configure the Hub Server. Manually add the property. Absolute path and file name of the truststore file.

**ssl.trustStore.password**

Required if you use the HTTPS port of the application server to configure the Hub Server. Manually add the property. Plain text password for the truststore file.

For more information about setting Hub Server properties, see the *Multidomain MDM Version 10.3 Configuration Guide*.

## Process Server Properties Introduced in Version 10.3

You can use the following Process Server properties to control the run-time behavior of the MDM Hub.

You can configure the Process Server properties that are related to search with Elasticsearch in the `cmxcleanse.properties` file.

**cmx.ss.engine**

Required if you want to use the Elasticsearch engine for search. Manually add the property and set to `es`.

**ex.max.conn.per.host**

Sets the maximum number of Elasticsearch nodes that you want to connect to the host. Set to the number of Elasticsearch cluster nodes on the host.

**ex.max.conn.per.host**

Sets the maximum number of Elasticsearch nodes that you want to connect to the host. Set to the number of Elasticsearch cluster nodes on the host.

**es.index.refresh.interval**

Sets the interval, in seconds, for Elasticsearch to commit the changes to the data after an Initially Index Smart Search Data batch job is run. The data is available for search after this time interval. Default is 30.

This property impacts the high indexing volume encountered during initial indexing. Change the value only when suggested by Informatica Global Customer Support.

For more information about setting the Process Server properties, see the *Multidomain MDM Version 10.3 Configuration Guide*.

## Global Properties

You can use the following global properties to control the run-time behavior of the Data Director application:

**minModalWidth**

Determines the minimum width in pixels of the **Search** window. Default is 1100.

# CHAPTER 15

## 10.3 What's Changed

This chapter includes the following topics:

- [Terminology Changes, 83](#)
- [Search with Apache Solr is Deprecated, 84](#)
- [Task Inbox, 84](#)
- [Task Manager, 84](#)
- [Resource Kit, 85](#)

### Terminology Changes

The following terms have changed in this version:

New	Explanation	Replaces	Where?
Home page	The customizable dashboard that contains the task inbox and other components.	Start page	Data Director
Record	An instance of a business entity. For example, John Smith is a record, while Person is the business entity.	Business Entity	Data Director
Record views	Any view of one or more records in Data Director.	entity view	Data Director, Provisioning tool
Record view layout	A Data Director user interface layout that you can design to view and manage records or tasks in Data Director.	entity view layout	Provisioning tool
Search	The keyword search functionality in Data Director. To search for records, you can enter keywords in a search box.	Smart Search	Data Director, Provisioning tool
New tab	A tab in the navigation bar that you can use to create records.	Create menu or Create in Data View menu	Data Director

# Search with Apache Solr is Deprecated

Effective in version 10.3, the search functionality in Data Director that used Apache Solr is deprecated. Informatica will drop support for search with Solr in a future release. You can use search with Elasticsearch to find records in Data Director. Elasticsearch is an open-source, full-text search engine.

You must configure search with Elasticsearch, which is packaged with the MDM Hub installer. You can set up Elasticsearch as a single node cluster or as a multi-node cluster to provide distributed indexing and search. For a smooth transition, the APIs that were supported for search with Apache Solr are supported for search with Elasticsearch.

## Task Inbox

Effective in version 10.3, you can configure the columns and the filters that you want to view in the task inbox. Use the Provisioning Tool to configure the columns and the filters for the task inbox.

The task inbox contains the following filters:

- My Open Tasks
- My Closed Tasks
- All Tasks
- All Unclaimed Tasks
- All Closed Tasks
- All Claimed Tasks

Previously, you could not configure the columns and filters for the task inbox, and the task inbox contained only My Tasks and Available Tasks as the filters.

For more information about configuring the task inbox, see the *Multidomain MDM 10.3 Provisioning Tool Guide*.

## Task Manager

Effective in version 10.3, you can configure the the fields that you want to view in the task panel of the Task Manager. Use the Provisioning Tool to configure the fields for the task panel.

The task panel contains the following filters:

- My Open Tasks
- My Closed Tasks
- All Tasks
- All Unclaimed Tasks
- All Closed Tasks
- All Claimed Tasks

Previously, the task panel contained only My Tasks and Available Tasks as the filters.

For more information about configuring the Task Manager, see the *Multidomain MDM Version 10.3 Provisioning Tool Guide*.

## Resource Kit

Effective in version 10.3, the following items are removed from the Resource Kit directory and the *Multidomain MDM Resource Kit Guide*:

- WsCodeGenPlugin sample
- Jaspersoft templates