



Collibra Data Governance Center  
**Platform Upgrade**

## Collibra Data Governance Center - Platform Upgrade

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You can find the most up-to-date technical documentation on our Documentation Center at

[https://productresources.collibra.com/docs/collibra/latest/Content/Installation/Upgrade/to\\_upgrade.htm](https://productresources.collibra.com/docs/collibra/latest/Content/Installation/Upgrade/to_upgrade.htm)

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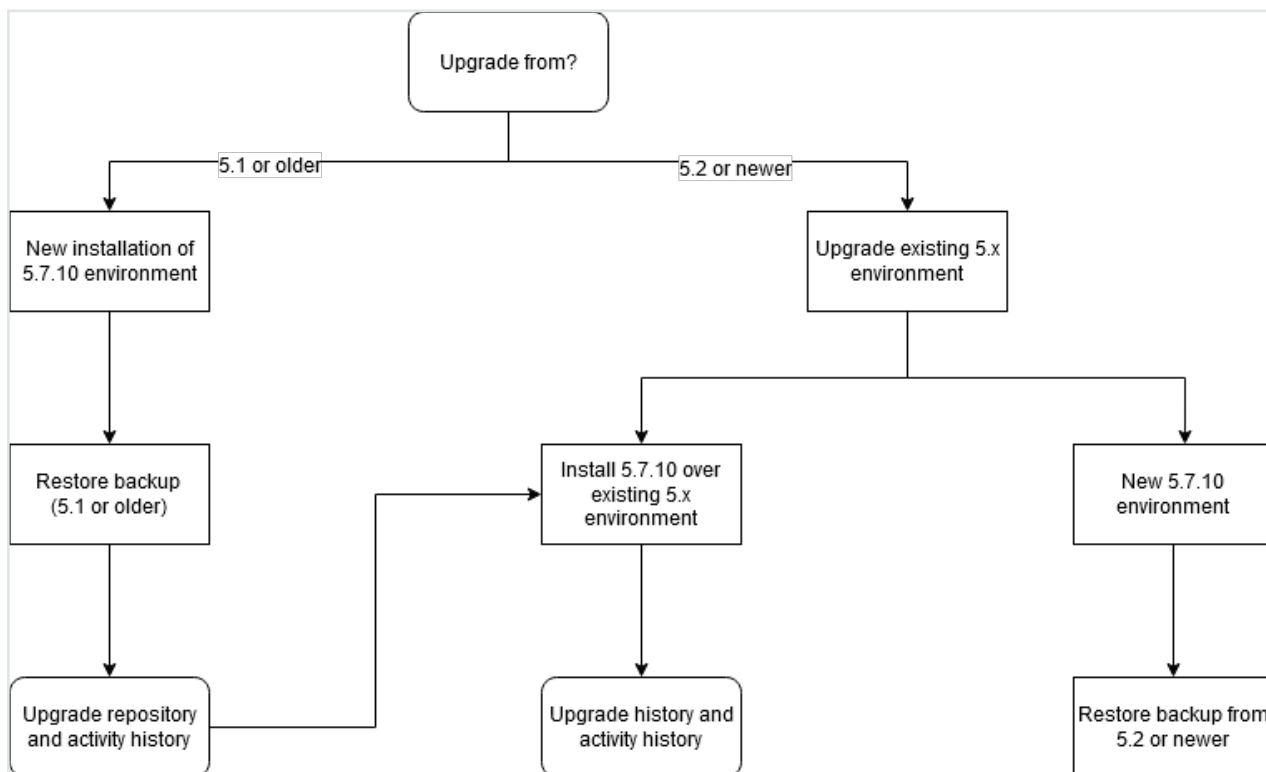
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## Upgrading to Collibra DGC 5.7.13

To upgrade to Collibra Data Governance Center 5.7.13, you need at least version 4.5 or newer. The upgrade procedure depends on the Collibra DGC version that you are upgrading from.

### Warning

- When you upgrade to 5.7 or newer, [characteristics of some Catalog-related assets](#) are converted from rich-text format to plain-text format.
- A Collibra DGC environment requires the new Search service. Make sure that you install this service and that you add it to your environment.
- Collibra Connect 1.4.x and older are not compatible with Collibra DGC 5.6 or newer. Upgrade to Collibra Connect 1.5 or 2.0.
- Due to an upgrade of our database in Collibra DGC 5.6.2, Ubuntu 12.04 is no longer supported.



There are three scenarios to upgrade to version 5.7:

1. Upgrade a 4.5.x or 4.6.x environment. See [Upgrade from 5.1 or older to 5.7.13](#).
2. Upgrade a 5.x environment by installing 5.7 over the current version. See [Install 5.7.13 over a 5.2 or newer version](#).
3. Upgrade to 5.7 by installing a new 5.7 environment and restoring a 5.x backup. See [Install 5.7 with an old 5.x backup](#).

**Note**

If you upgrade from a version earlier than 5.2, the upgrade of the repository to version 5.3 or newer consists of two steps:

1. Upgrade of the repository to 5.2.x: This upgrade step is controlled by Collibra Console.
2. Upgrade of the repository from 5.2.x to 5.3 or newer: This upgrade step is performed during the start of the DGC service. The logging of this step is not visible in Collibra Console.

This is however transparent for the user, you will only notice this in the log files.

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# Before the upgrade

**Warning** If you are upgrading from Collibra DGC 5.5 or older and you have the GDPR Solution installed, you must carry out a [post-upgrade procedure](#), in order to access your upgraded Collibra DGC environment.

## Note

- The upgrade to Collibra Data Governance Center 5.6 or newer requires the Search service.
- Upgrading a 5.1.x or older version to 5.7.13 or newer requires an intermediate upgrade to 5.7.6.
- If you upgrade a 4.5.x/4.6.x environment to 5.7, there are certain [Limitations of the upgrade from 4.5.x / 4.6.x](#).

Before you upgrade your Collibra Data Governance Center environment to 5.7.13, keep the following prerequisites in mind:

1. You have requested a 5.7 license from your Collibra Customer Success manager if you are upgrading from Collibra DGC 4.x .  
You cannot start a 5.7 environment with a license file from a 4.x environment.  
However, DGC 5.x licenses will still work on 5.7.
2. You have downloaded **upgrade\_checkup\_script.sql** from the [Collibra Downloads page](#), however not mandatory for the upgrade, we highly recommend to [execute this repository health-check](#).
3. You have created a backup of your environment.
  - **4.5.x** or **4.6.x**: See [Create a backup in Collibra DGC 4.x](#).
  - **5.x**: See [Create a backup of Collibra Data Governance Center 2022.06](#).
4. You have [stopped](#) the complete environment if you [install](#) 5.7.13 over an existing 5.x environment.
5. The node on which you will install the Search service, must meet the [minimum system requirements](#).  
For this service, we recommend to either use a new node or to add it to the node that hosts the Data Governance Center service.  
We also recommend to look at the [recommended system requirements](#).

6. On Windows Server 2012 and 2012 R2, you have installed all the latest Windows updates and patches.

## Best practices

### Operating System upgrade

When upgrading the Operating System, keep the following in mind:

- Ensure that the used user account keeps full permissions on the Collibra DGC installation directories.
- Ensure that the SSO configuration does not change.
- Ensure that the SSL configuration does not change.

### Restoring a backup

If you restore a backup from another environment, ensure that you clear the option **Configuration**. Including the configuration when restoring a backup overwrites your existing configuration and may leave your environment unresponsive.

### Environment upgrade

When you upgrade your environment, ensure that you use the same user account that was used to install the environment.

## Check the repository before an upgrade

If you upgrade from a version 5.7.6 or older to 5.7.7 or newer, we highly recommend to check the health of your repository. To do the health check, you can download a script. This script detects any possible issues that may block the upgrade of your environment.

The script does not change any data in the Repository and has minimal impact on the performance. There is no need to stop the environment.

**Tip** This procedure is not necessary if your current version is 5.7.7 or newer.

## Steps

1. Download the script `upgrade_checkup_script.sql` from the [Collibra Downloads page](#).
2. Sign in to the server that hosts the Repository service.
3. Save the script in a temporary directory, for example `/tmp`.
4. From the temporary directory, run the following command:
  - Linux:

```
#set environment variable
export PGPASSFILE={path_to_collibra_data_dir}/re-
po/data/.pgpass;

#execute script
{path_to_repo_installation_dir}/pgsql/bin/psql -p 4403
-U collibra -d dgc -q -f upgrade_checkup_script.sql >>
checkup_result.txt
```

### Example

```
export PGPASSFILE=/collibra_
data/repo/data/.pgpass; collibra/pgsql/bin/psql -
p 4403 -U collibra -d dgc -q -f upgrade_checkup_
script.sql >> checkup_result.txt
```

- Windows Powershell:

```
#set environment variable
env:PGPASSFILE="{path_to_collibra_data_dir}/re-
po/data/pgpass.conf;

#execute script
{path_to_repo_installation_dir}/pgsql/bin/psql -p 4403
-U collibra -d dgc -q -f upgrade_checkup_script.sql >>
checkup_result.txt
```

- Windows command prompt:



```
#set environment variable
SET PGPASSFILE={path_to_collibra_data_dir}/re-
po/data/pgpass.conf;

#execute script
{path_to_repo_installation_dir}/pgsql/bin/psql -p 4403
-U collibra -d dgc -q -f upgrade_checkup_script.sql >>
checkup_result.txt
```

## What's next?

The file `checkup_result.txt` is created in your temporary directory. You can open the file in a text editor.

At the end of the file, you can find the [status](#) of the checkup.

## Repository statuses

When you have [checked](#) the repository, the results file (`checkup_result.txt`) contains the status of your repository.

| Status | Description   |
|--------|---|
| GREEN  | The health-check only contains warnings.<br>The repository is safe to be upgraded.  |
| ORANGE | There is information about history tables from a 4.x version but there are no errors found.<br>The repository is safe to be upgraded.                   |
| RED    | There are repository issues found that need to be resolved before you start the upgrade.<br>Do not start the upgrade, contact Collibra Support instead. |

## Examples

### GREEN

```
warnings
-----
WARNING: following records will be removed:
members contains 1 values that will be removed RL for column
associated_resource_type
(2 rows)

audit_tables
-----
(0 rows)

errors
-----
(0 rows)

status
-----
GREEN
(1 row)
```

### ORANGE

```
warnings
-----
(1 row)

audit_tables
-----
WARNING: The database contains 48 audit table(s)
(1 row)

errors
-----
(0 rows)

status
-----
```

```
ORANGE  
(1 row)
```

## RED

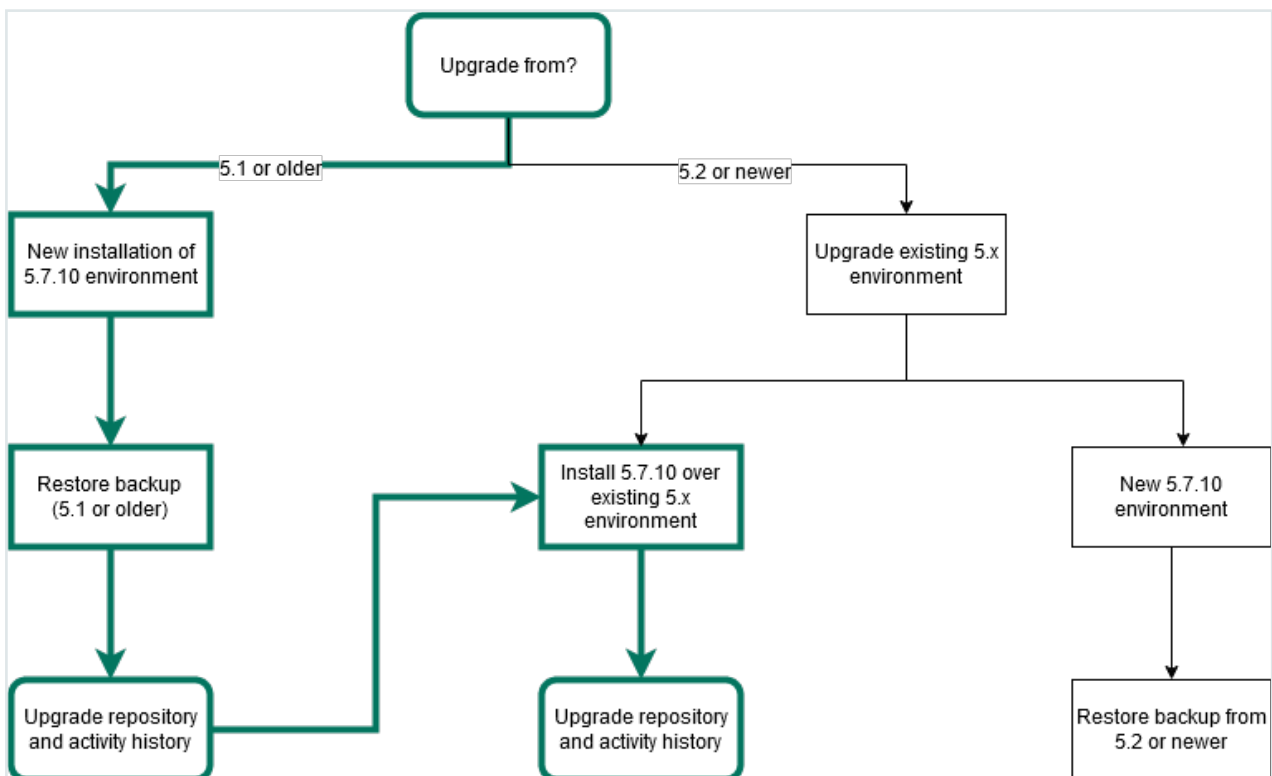
```
warnings  
-----  
(1 row)  
  
audit_tables  
-----  
WARNING: The database contains 48 audit table(s)  
(1 row)  
  
errors  
-----  
-----  
representations contains 191 invalidly formatted UUIDs for  
column modifiedby  
attachments contains 2 invalid enum values TY for column base_  
resource_type  
comments contains 1 invalid enum values CT for column base_  
resource_type  
comments contains 1 invalid enum values VT for column base_  
resource_type  
members contains 1 invalid enum values VT for column asso-  
ciated_resource_type  
members contains 2 invalid enum values CT for column asso-  
ciated_resource_type  
(6 rows)  
  
status  
-----  
RED  
(1 row)
```

## Upgrade from 5.1 or older to 5.7.13

In this upgrade scenario, you will upgrade a Collibra Data Governance Center 5.1.x or older environment to 5.7.13.

**Note** You need to at least install the Data Governance Center, Repository and Search service to have a functional environment.

**Tip** If you would use nodes on which there are already one more services installed, you have to install the new version in a **new installation directory**, unless the node has never been added to a Collibra Console, then you can overwrite the existing installation.



## Steps

1. Create a full backup of your Collibra DGC 5.1.x or older environment:
  - 4.5.x/4.6.x
  - 5.x
2. Install a new multi-node **Collibra DGC 5.7.6** environment, or optionally a single-node environment.  
Make sure that you install at least Collibra Console and the Data Governance

Center, Repository, Search and Monitoring services.

**Tip** If your environment is missing a mandatory service, for example the Search service, it will be indicated and you cannot start the environment.

The screenshot shows the 'Infrastructure' management interface. On the left, there is a navigation menu with sections for 'ENVIRONMENTS', 'REPOSITORY CLUSTERS', and 'NODES'. The 'Default environment' is selected. The main panel shows the environment is 'Incomplete' and lists missing services: Repository, Monitoring, and Search. Below this, there is a table of 'Environment services'.

| Service                | Node         | Status  |
|------------------------|--------------|---------|
| Data Governance Center | Default node | Stopped |

### 3. [Restore](#) the backup.

This action includes the upgrade of the repository to version 5.7.6.

**Tip** If the environment ends up in Error state, it is most likely because starting the DGC service takes too much time. See [Environment in error state after during the upgrade](#).

### 4. [Reindex](#) Collibra DGC.

### 5. [Upgrade](#) the activity history.

### 6. Continue the upgrade to 5.7.13 by following the steps of [Installing 5.7.13 over a 5.2 or newer version](#).

**Note** Make sure you [check the repository](#) before this step.

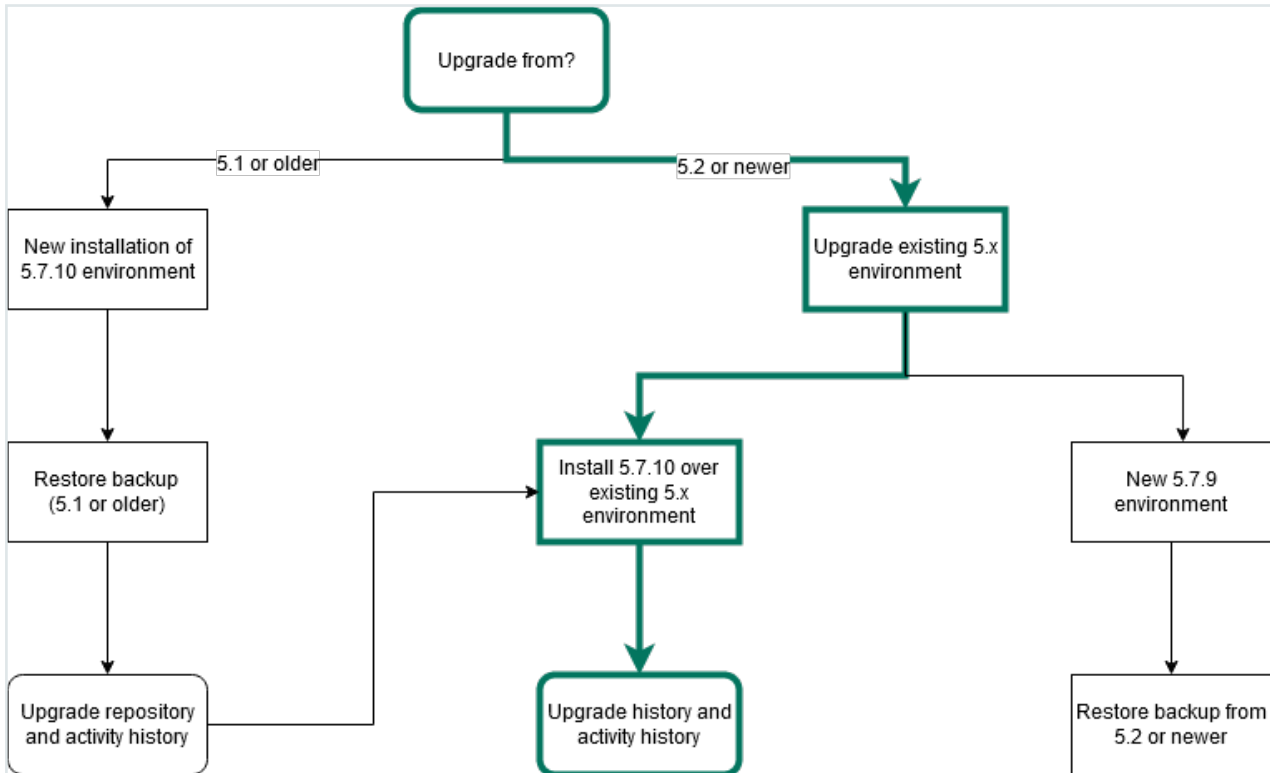
### 7. [Upload](#) a valid 5.7.13 license.

#### Tip

- If your environment is configured with SAML and it is no longer functional after the upgrade, consult the [troubleshooting section](#).
- For more information about scopes after an upgrade from version 4.x to 5.x, see [Collibra Support Portal](#).

# Install 5.7.13 over a 5.2 or newer version

In this upgrade scenario, you will upgrade a Collibra Data Governance Center 5.x environment to 5.7.13 by overwriting the current version with the 5.7.13 version:



## Note

- You must add the Search and Monitoring services during the upgrade as these are new required services in an environment.
- You must upgrade with the same user account that was used for the installation, both on Linux and Windows. If the user account is no longer active, see [Upgrade an environment with another user account](#) in the Troubleshooting section.

## Prerequisites

- You have enough free disk space in the volume that hosts the data folder, **collibra\_data**. The free disk space must be at least the size of the current data.  
For example, if your data in the data folder takes 5 GB, you need at least 5 GB of free

disk space on that volume to upgrade.

- [Stop](#) the environment and the [agent and Console services](#).
- If you install the Search service on a Linux system, the node that will run the Search service must pass the following bootstrap checks:
  - [File descriptor](#)
  - [Maximum number of threads check](#)
  - [Maximum file size](#)
  - [Maximum size virtual memory check](#)
  - [Maximum map count check](#)

| Type             | Check description                        | Minimum value | Applies for installation type   | Setting name     |
|------------------|--|---------------|---|------------------|
| User limit       | Maximum number of open file descriptors  | 65536         | <ul style="list-style-type: none"> <li>▪ Without root permissions</li> <li>▪ With root permissions, using System V init daemon</li> </ul> | nofile           |
|                  | Maximum number of open threads/processes | 4096          |   | nproc            |
|                  | Maximum file size                        | unlimited     |   | fsize            |
| Kernel parameter | Maximum virtual memory areas             | 262144        | <ul style="list-style-type: none"> <li>▪ All</li> </ul>   | vm.max_map_count |

For more information on these settings, see the [Troubleshooting section](#).

- The [status of your repository](#) is Green or Orange.

**Warning** If the status of the repository is Red, do not start the upgrade procedure but contact Collibra Support.

## Steps

1. [Stop](#) the environment.
2. [Stop](#) the Collibra Agent and Collibra Console.

3. Start the installation wizard:

- Linux as user with sudo rights: `sudo ./dgc-linux-5.7.13-0.sh`  
Linux as root user: `./dgc-linux-5.7.13-0.sh`
- Linux as standard user: `./dgc-linux-5.7.13-0.sh`
- Windows Server: double-click **setup.bat**

**Important** The path of the installer file cannot contain spaces.

If you run the installation without Administrator rights, an error is shown.

**Tip** If you don't want to use the user interface even if it's available, add the following to the command:

```
-- --nox11
```

4. Click **Next**.

5. Select the installation directory of the old version and click **Update**.

**Note** If you select a different installation directory, you will **add** a new Collibra DGC installation next to the existing installation.

6. Click **Yes** to confirm that you have created a backup and that all the services are stopped on the node.

» The **Component selection** dialog box appears, indicating which services are installed on the node.

7. Select the services that you want to add to the node and click **Next**.

**Note** On a single-node installation, you have to select at least the Search and Monitoring services.

8. If you have selected new services in the previous step, you have to configure the services in the next dialog boxes. After the last configuration dialog box, click **Update**.

» The installed services on the node are upgraded and newly selected services are installed.



9. Click **Exit**.**Note**

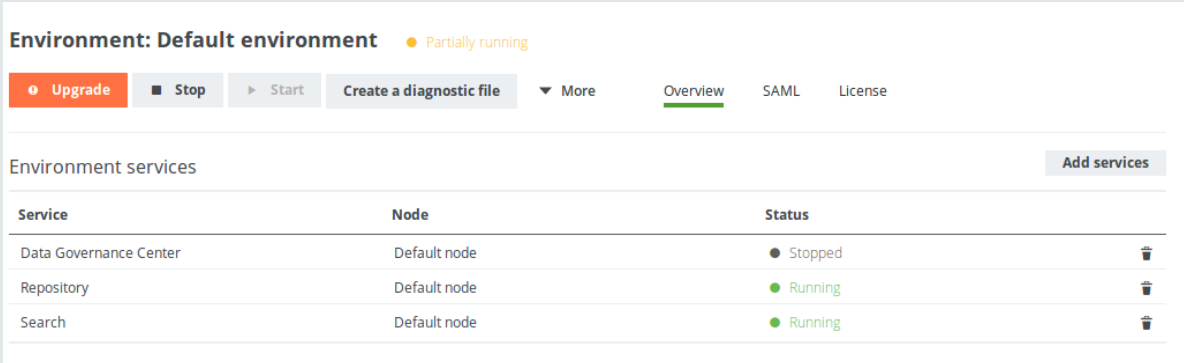
- If you have a multinode installation, repeat the previous steps for every node of the environment until you have upgraded all nodes.
- Make sure that you have installed the Search and Monitoring services on one of the nodes.

## 10. Start Collibra Console.

» You will notice that the upgraded environment is incomplete.

11. [Add](#) the Search service to your environment.12. [Start](#) the environment.

» The start of the environment will be interrupted and your environment will be partially running.

13. Click the orange **Upgrade** button to continue the upgrade.


The screenshot shows the 'Environment: Default environment' page with a 'Partially running' status. The 'Upgrade' button is highlighted in orange. Below the navigation bar, there is a table of environment services.

| Service                | Node         | Status    |
|------------------------|--------------|-----------|
| Data Governance Center | Default node | ● Stopped |
| Repository             | Default node | ● Running |
| Search                 | Default node | ● Running |

14. In the **Upgrade** dialog box, click **Upgrade**.

» Your environment is being upgraded. When all services are up and running again, the upgrade process has completed.

**Tip**

- In this phase, a backup of the current database will be created. If the creation would take too much time, it will time out and the upgrade will fail. [Increase](#) the backup timeout in that case and restart the upgrade.
- If the environment ends up in Error state, it is most likely because starting the DGC service takes too much time. See [Environment in error state after during the upgrade](#).
- If your environment is configured with SAML and it is no longer functional after the upgrade, consult the [troubleshooting section](#).

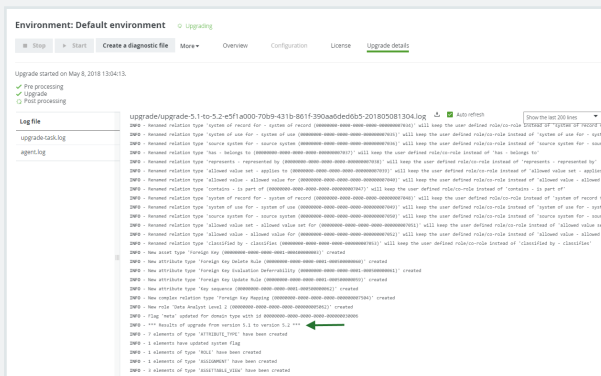
15. Reindex Collibra DGC.

16. Upgrade the activity history.

Note

If you look in the upgrade logs (**upgrade-task.log**), you will see one of the following lines near the end:

- INFO - COMPLETED Upgrade the database version to [5.2]
- INFO - \*\*\* Results of upgrade from version 5.1 to version 5.2 \*\*\*



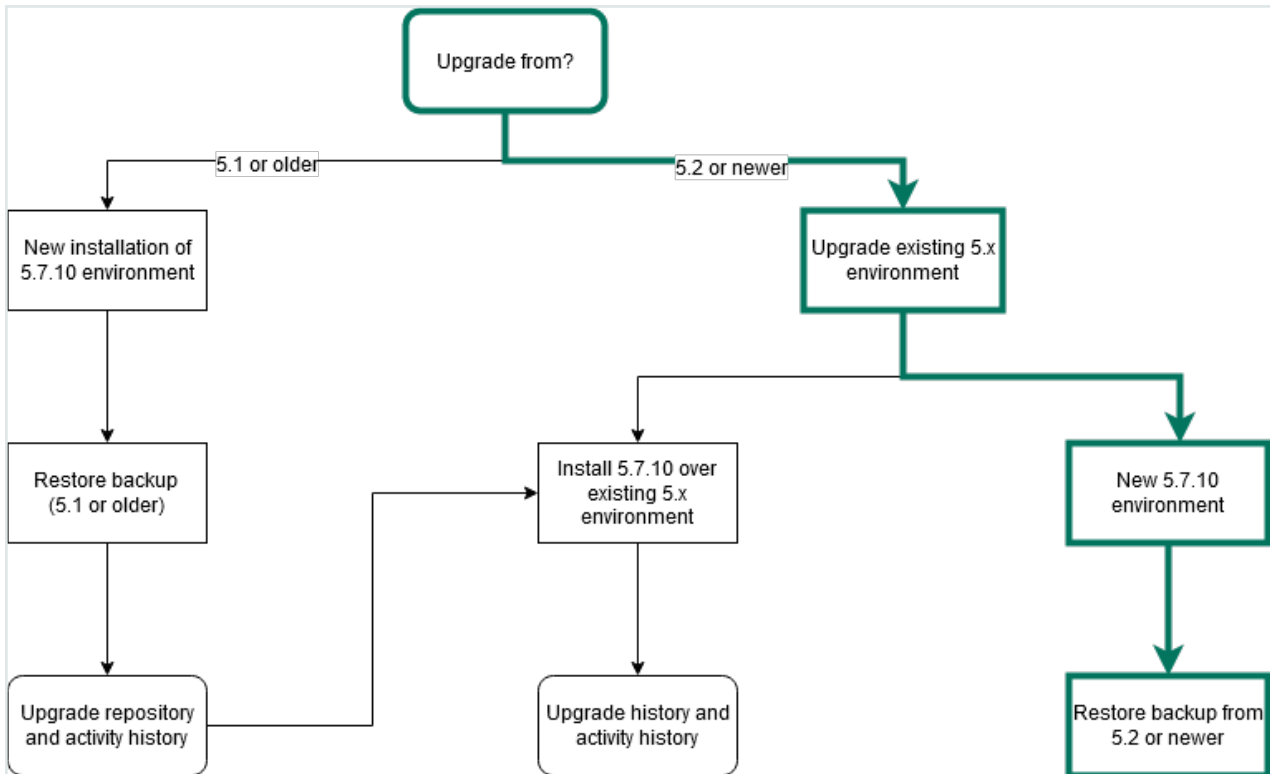
This means that the repository has upgraded to 5.2 at this point. The upgrade to a later version, for example 5.7.13, is performed during the start of the DGC service and is therefore not logged in this log file, but in **dgc.log**, which you can find in the diagnostic file.

# Install 5.7 with an old 5.x backup

In this upgrade scenario, you will upgrade a Collibra Data Governance Center 5.x environment to 5.7 by installing a new Collibra DGC 5.7 and restoring a 5.x backup.

Note You need to at least install the Data Governance Center, Repository and Search service to have a functional environment.

Tip If you use nodes on which there are already one more services installed, you have to install the new version in a **new installation directory**, unless the node has never been added to a Collibra Console, then you can overwrite the existing installation.



## Prerequisites

- The **status of your repository** is Green or Orange.

**Warning** If the status of the repository is Red, do not start the upgrade procedure but contact Collibra Support.

## Steps

- Create** a full backup of your Collibra DGC 5.x environment.
- Install a new **multi-node** Collibra DGC 5.7 environment, or optionally a **single-node** environment. Make sure that you install at least Collibra Console and the Data Governance Center, Repository, Search and Monitoring services.

**Tip** If your environment is missing a mandatory service, for example the Search service, it will be indicated and you cannot start the environment.

The screenshot shows the 'Infrastructure' page in the Collibra console. On the left, there is a navigation menu with 'Add / Create' at the top, followed by 'ENVIRONMENTS', 'REPOSITORY CLUSTERS', and 'NODES'. Under 'ENVIRONMENTS', 'Default environment' is selected, showing 'Data Governance Center' and 'Node: Default node'. The main content area shows 'Environment: Default environment' with a status of 'Incomplete'. A red message states: 'To start the environment, add the following service(s): Repository, Monitoring, Search'. Below this, there are buttons for 'Stop', 'Start', 'Create a diagnostic file', 'More', 'Overview', 'SAML', and 'License'. An 'Add services' button is also present. A table titled 'Environment services' lists the 'Data Governance Center' service on the 'Default node' with a status of 'Stopped'.

### 3. Restore a 5.x backup.

This action automatically updates the database of the backup to the new version.

**Tip** If the environment ends up in Error state, it is most likely because starting the DGC service takes too much time. See [Environment in error state during the upgrade](#).

### 4. Reindex Collibra DGC.

If your environment is configured with SAML and it is no longer functional after the upgrade, consult the [troubleshooting section](#).

## Create a backup of Collibra Data Governance Center 2022.06

If you want to take a full or partial [backup](#) of a Collibra Data Governance Center environment, follow these steps:

1. Open Collibra Console with a user profile that has at least the **ADMIN** role.
  - » Collibra Console opens with the **Infrastructure** page.
2. In the main menu, click **Backups**.
  - » The [backups page](#) appears.

3. In the upper right corner, click **Create backup**.
4. Enter the required information.

| Option      | Description  |
|-------------|--|
| Environment | The Collibra Data Governance Center environment that you want to back up.  |
| Include     | <p>You can create:</p> <ul style="list-style-type: none"> <li>◦ a full backup: Includes all backup options.</li> <li>◦ a partial backup: Includes only a couple of the backup options.</li> </ul>  |
| Data        | The core (database) data contained in the Collibra DGC environment. This is all the data related to communities, domains, assets, users, operating model and so on.  |
| History     | <p>The history of the data (activity and snapshot-related). This can result in a very large file, depending on the activity in Collibra DGC.</p> <p>If you create a backup of the data and exclude the data history, you are taking a backup of a subset of the database content. This results in a much smaller backup file, but it still contains a complete picture of the current content. This is useful when attaching a backup to a technical support ticket, if support has to reproduce a problem.</p> <div style="border-left: 2px solid red; padding-left: 10px; margin-top: 10px;"> <p><b>Warning</b> If you <a href="#">restore</a> a backup that does not include history and was made from a version older than 5.7.x, the <a href="#">data quality</a> metrics will not work correctly. To solve this issue, after you restore the backup in your latest environment, upgrade the data, create a new backup and restore the new backup in the same environment.</p> </div> |

| Option         | Description  |
|----------------|--|
| Configuration  | The configuration of the Collibra DGC environment.   |
| Customizations | <p>The customizations such as custom modules, styling, page-definitions and email template files.</p> <p>This will add files that are located in the Collibra user home directory and files that are used to customize the Collibra DGC environment (<code>/opt/collibra_data/console/config</code>). This concerns all the files located in the following directories:</p> <ul style="list-style-type: none"> <li>◦ <b>email-templates</b></li> <li>◦ <b>groovy-lib</b></li> <li>◦ <b>images</b></li> <li>◦ <b>page-definitions</b></li> <li>◦ <b>security</b></li> <li>◦ <b>styling</b></li> <li>◦ <b>translations</b></li> <li>◦ <b>modules</b> (if available)</li> </ul> |
| Name           | The name of the backup.  |
| Description    | The description to provide more information on the backup.   |

5. Click **Create backup**.

## What's next?

A dialog box with a progress bar is displayed. You can let the backup continue in the background. If you do so, you can see the progress of the backup on the [backups page](#).

## Install Collibra Console

This section describes how to install the Collibra Console software. The Collibra Console is required to configure and manage one or more Collibra DGC environments.

**Tip** For the installation on Linux without root permissions, also read the [services](#) section.

## Steps

**Note** If you want to configure the init daemon on Linux systems, you have to execute an [unattended installation](#). For more information, see also the [unattended installation configuration parameters](#).

**Note** Anti-virus and/or security software may block the installation on Windows. Make sure that these allow the installation of software and services. For more information, see also the [Collibra University course](#).

### 1. Run the installer:

- **Linux as user with sudo rights:** `sudo ./dgc-linux-5.7.13-0.sh`  
**Linux as root user:** `./dgc-linux-5.7.13-0.sh`
- **Linux as standard user:** `./dgc-linux-5.7.13-0.sh`
- **Windows Server:** double-click **setup.bat**

**Important** The path of the installer file cannot contain spaces.

If you run the installation without Administrator rights, an error is shown.

**Tip** If you don't want to use the user interface even if it's available, add the following to the command:

```
-- --nox11
```

### 2. In the wizard introduction, click **Next**.

### 3. Enter the **Installation directory** of the Collibra Console component.

- Default location on Linux as root or user with sudo privileges: **/opt/collibra**
- Default location on Linux as standard user: **~/collibra**

- Default location on Windows Server: **C:\collibra**

**Important** On Windows, the target installation directory cannot contain spaces.

4. Click **Next**.
5. Enter the location of the **Collibra Data Directory**.
  - Default location on Linux as root or user with sudo privileges: **/opt/collibra\_data**
  - Default location on Linux as standard user: **~/collibra\_data**
  - Default location on Windows Server: **C:\collibra\_data**

**Important** On Windows, that target data directory cannot contain spaces.

6. Click **Next**.
7. Clear all components except **Management Console**.
8. Click **Next**.
9. Enter the required information.

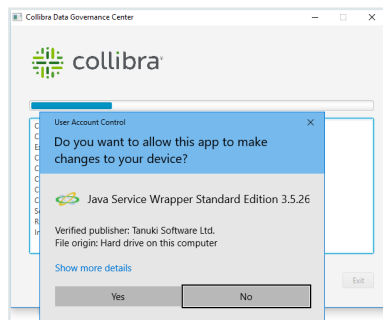
| Setting               | Description   |
|-----------------------|---|
| Console port          | The TCP port to access your Collibra Console via your web browser.<br>The default port is <i>4402</i> .   |
| Console database port | The TCP port to access the Collibra Console database. This is the database where the data and configuration of Collibra Console is stored.<br>The default port is <i>4420</i> . |



| Setting              | Description   |
|----------------------|---|
| Console context path | <p>The path that is added to the base URL to reach Collibra Console.</p> <p>For example, if your base URL is <code>https://dgc.yourcompany.com:4402/</code> and your context path is <code>console-acceptance</code>, then your path to reach Collibra Console is <code>https://dgc.yourcompany.com:4402/console-acceptance</code>.</p> <p>See also <a href="#">Set the context path of Collibra Console</a>.</p> |

If you run [multiple Collibra Console instances](#) on one node, this port must be unique for each instance.

10. Click **Install**.
  - » The installation of Collibra Console starts.
11. On Windows, you may see User Account Control warnings requesting to make changes to your device.



Click **Yes** for each of the requests, if you click **No**, the installation will fail.

12. Click **Exit**.
  - » Collibra Console is installed on your node.

## What's next?

The default credentials to sign in to Collibra Console are *Admin / admin*. We highly recommend that you [edit](#) the Collibra Console administrator's password after signing in for the first time.

Access to Collibra Console does not require a license.

## Install the DGC service

The DGC service contains the business logic of Collibra Data Governance Center and contains amongst others a workflow engine and various APIs (Java, REST, Search, ...).

This is a mandatory service in every Collibra DGC environment.

**Tip** For the installation on Linux without root permissions, also read the [services](#) section.

## Steps

**Note** If you want to configure the init daemon on Linux systems, you have to execute an [unattended installation](#). For more information, see also the [unattended installation configuration parameters](#).

**Note** Anti-virus and/or security software may block the installation on Windows. Make sure that these allow the installation of software and services. For more information, see also the [Collibra University course](#).

### 1. Run the installer:

- Linux as user with sudo rights: `sudo ./dgc-linux-5.7.13-0.sh`  
Linux as root user: `./dgc-linux-5.7.13-0.sh`
- Linux as standard user: `./dgc-linux-5.7.13-0.sh`
- Windows Server: double-click **setup.bat**

**Important** The path of the installer file cannot contain spaces.

If you run the installation without Administrator rights, an error is shown.

**Tip** If you don't want to use the user interface even if it's available, add the following to the command:  
`-- --nox11`

2. In the wizard introduction, click **Next**.
3. Enter the **Installation directory** of the Data Governance Center service.
  - Default location on Linux as root or user with sudo privileges: **/opt/collibra**
  - Default location on Linux as standard user: **~/collibra**
  - Default location on Windows Server: **C:\collibra**

**Important** On Windows, the target installation directory cannot contain spaces.

4. Click **Next**.
5. Enter the location of the **Collibra Data Directory**.
  - Default location on Linux as root or user with sudo privileges: **/opt/collibra\_data**
  - Default location on Linux as standard user: **~/collibra\_data**
  - Default location on Windows Server: **C:\collibra\_data**

**Important** On Windows, that target data directory cannot contain spaces.

6. Click **Next**.
7. Clear all components except **Data Governance Center**.
8. Click **Next**.
9. Enter the required information.

| Setting           | Description   |
|-------------------|---|
| DGC port          | The TCP port to access your Collibra DGC environment via your web browser.<br>The default port is <i>4400</i> . |
| DGC Shutdown port | The TCP port to stop the DGC service.<br>The default port is <i>4430</i> .                                      |

| Setting            | Description   |
|--------------------|---|
| DGC minimum memory | <p>The minimum amount of memory in megabytes for the DGC service.</p> <p>This must be at least 1024 MB and no greater than 32 768 MB (32 GB).</p>   |
| DGC maximum memory | <p>The maximum amount of memory in megabytes that can be assigned to the DGC service.</p> <p>This must be at least 2048 MB and no greater than 32 768 MB (32 GB).</p>   |
| DGC context path   | <p>The path that is added to the base URL to reach Collibra Data Governance Center.</p> <p>For example, if your base URL is <code>https://dgc.yourcompany.com:4400/</code> and your context path is <code>acceptance</code>, then your path to reach Collibra DGC is <code>https://dgc.yourcompany.com:4400/acceptance</code>.</p> <p>See also <a href="#">Set the context path of the DGC service in Collibra Console</a>.</p> |

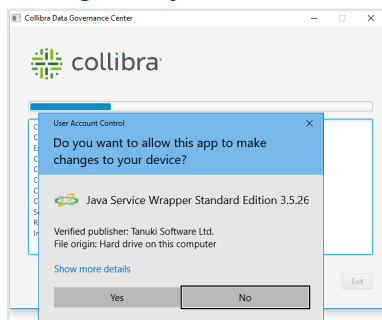
If you run [multiple environments](#) on one node, all ports must be unique for each environment.

10. Click **Next**.

- Enter the Agent service settings and click **Next**.

| Setting      | Description  |
|--------------|--|
| Agent port   | The TCP port that is used by Collibra Console to manage the services of an environment.<br>The default port is <i>4401</i> .<br><br>If you run multiple agents on one node, this port must be unique for each agent. |
| Node address | The hostname of the node on which the Agent service is running.  |

- Click **Install**.
  - » The installation of the DGC service starts.
- On Windows, you may see User Account Control warnings requesting to make changes to your device.



Click **Yes** for each of the requests, if you click **No**, the installation will fail.

- Click **Exit**.
  - » The DGC service is installed on your node.

## What's next?

Add the DGC service to your environment, this service is mandatory for a functional Collibra DGC environment.

## Install the Repository service

The repository service is used to run the database of Collibra Data Governance Center.

This is a mandatory service in every Collibra DGC environment.

**Tip** For the installation on Linux without root permissions, also read the [services](#) section.

## Steps

**Note** If you want to configure the init daemon on Linux systems, you have to execute an [unattended installation](#). For more information, see also the [unattended installation configuration parameters](#).

**Note** Anti-virus and/or security software may block the installation on Windows. Make sure that these allow the installation of software and services. For more information, see also the [Collibra University course](#).

### 1. Run the installer:

- **Linux as user with sudo rights:** `sudo ./dgc-linux-5.7.13-0.sh`  
Linux as root user: `./dgc-linux-5.7.13-0.sh`
- **Linux as standard user:** `./dgc-linux-5.7.13-0.sh`
- **Windows Server:** double-click **setup.bat**

**Important** The path of the installer file cannot contain spaces.

If you run the installation without Administrator rights, an error is shown.

**Tip** If you don't want to use the user interface even if it's available, add the following to the command:

```
-- --nox11
```

### 2. In the wizard introduction, click **Next**.

### 3. Enter the **Installation directory** of the Repository service.

- Default location on Linux as root or user with sudo privileges: **/opt/collibra**
- Default location on Linux as standard user: **~/collibra**

- Default location on Windows Server: **C:\collibra**

**Important** On Windows, the target installation directory cannot contain spaces.

4. Click **Next**.

5. Enter the location of the **Collibra Data Directory**.

- Default location on Linux as root or user with sudo privileges: **/opt/collibra\_data**
- Default location on Linux as standard user: **~/collibra\_data**
- Default location on Windows Server: **C:\collibra\_data**

**Important** On Windows, that target data directory cannot contain spaces.

6. Click **Next**.

7. Clear all components except **Repository**.

8. Click **Next**.

9. Enter the required information.

| Setting           | Description  |
|-------------------|--|
| Repository port   | <p>The TCP port to access the repository service. It is only used by the DGC service and the Collibra agent.</p> <p>The default port is <i>4403</i>.</p> <p>If you run <a href="#">multiple environments</a> on one node, all ports must be unique for each environment.</p> |
| Repository memory | <p>The amount of memory for the Repository service in megabytes.</p> <p>This must be at least 512 MB and no greater than 16 384 MB (16 GB).</p>  |

| Setting                           | Description  |
|-----------------------------------|--|
| Repository admin password (*)     | The password that is used by the agent to access the Repository service. |
| Confirm repository admin password | The password as entered in the Repository admin password field.          |
| Repository dgc password (*)       | The password that is used by the DGC service to access the repository.   |
| Confirm repository dgc password   | The password as entered in the Repository dgc password field.            |

Note (\*) These passwords can contain the following characters:

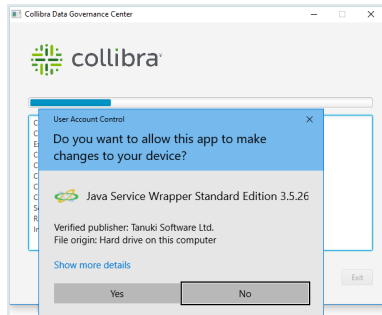
- lowercase letters
- uppercase letters
- numbers
- the following special characters: #?!@\$%&\*-

10. Click **Next**.
11. Enter the Agent service settings and click **Next**.

| Setting      | Description  |
|--------------|--|
| Agent port   | The TCP port that is used by Collibra Console to manage the services of an environment.<br>The default port is <i>4401</i> .<br><br>If you run multiple agents on one node, this port must be unique for each agent. |
| Node address | The hostname of the node on which the Agent service is running.  |



12. Click **Install**.
  - » The installation of the Repository service starts.
13. On Windows, you may see User Account Control warnings requesting to make changes to your device.



Click **Yes** for each of the requests, if you click **No**, the installation will fail.

14. Click **Exit**.
  - » The Repository service is installed on your node.

## What's next?

[Add](#) the Repository service to your environment, this service is mandatory for a functional Collibra DGC environment.

## Install the Jobserver

The Jobserver is used to ingest data and to execute [data profiling](#) or to create [sample data](#) on the ingested data. You can ingest data when you [register](#) a data source.

The Jobserver must be installed on a dedicated server.

### Tip

When you install an on-premises Jobserver for use in a Collibra Data Intelligence Cloud environment, you also have to install Collibra Console, to manage and configure this Jobserver. You can install both services on the same server.

You can find the version of your Collibra Data Intelligence Cloud environment at the bottom of the sign-in window, for example 5.7.0. Always use the latest available on-premises installer to install the Jobserver.

If you don't have a Jobserver installed and [configured](#) in your environment, the **Register data source** action will be grayed out in the global create menu of Collibra Data Governance Center.

## Steps

**Tip** For the installation on Linux without root permissions, also read the [services](#) section.

**Note** If you want to configure the init daemon on Linux systems, you have to execute an [unattended installation](#). For more information, see also the [unattended installation configuration parameters](#).

**Note** Anti-virus and/or security software may block the installation on Windows. Make sure that these allow the installation of software and services. For more information, see also the [Collibra University course](#).

### 1. Run the installer on a dedicated server:

- Linux as user with sudo rights: `sudo ./dgc-linux-5.7.13-0.sh`
- Linux as root user: `./dgc-linux-5.7.13-0.sh`
- Linux as standard user: `./dgc-linux-5.7.13-0.sh`
- Windows Server: double-click **setup.bat**

**Important** The path of the installer file cannot contain spaces.

If you run the installation without Administrator rights, an error is shown.

**Tip** If you don't want to use the user interface even if it's available, add the following to the command:

```
-- --nox11
```

### 2. In the wizard introduction, click **Next**.

### 3. Enter the **Installation directory** of the Jobserver service.

- Default location on Linux as root or user with sudo privileges: **/opt/collibra**
- Default location on Linux as standard user: **~/collibra**

- Default location on Windows Server: **C:\collibra**

**Important** On Windows, the target installation directory cannot contain spaces.

4. Click **Next**.
5. Enter the location of the **Collibra Data Directory**.
  - Default location on Linux as root or user with sudo privileges: **/opt/collibra\_data**
  - Default location on Linux as standard user: **~/collibra\_data**
  - Default location on Windows Server: **C:\collibra\_data**

**Important** On Windows, that target data directory cannot contain spaces.

6. Click **Next**.
7. Clear all components except **Jobserver**.
8. Click **Next**.
9. Enter the required information.

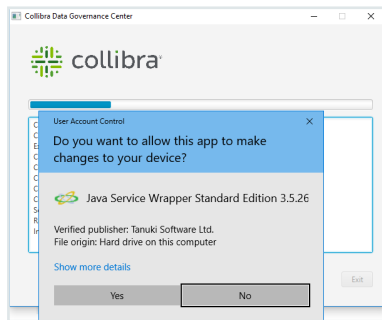
| Setting                         | Description  |
|---------------------------------|--|
| Jobserver port                  | The TCP port to access the Jobserver service.<br>The default port is <i>4404</i> .   |
| Jobserver data-base port        | The TCP port to access the Jobserver database.<br>The default port is <i>4414</i> .  |
| Jobserver monitoring port       | The TCP port that is used by the monitoring service to monitor the Jobserver service.<br>The default port is <i>4424</i> .       |
| Jobserver Spark monitoring port | The TCP port that is used by the monitoring service to monitor the Jobserver Spark service.<br>The default port is <i>4434</i> . |

10. Click **Next**.

11. Enter the Agent service settings and click **Next**.

| Setting      | Description  |
|--------------|--|
| Agent port   | The TCP port that is used by Collibra Console to manage the services of an environment.<br>The default port is <i>4401</i> .<br><br>If you run multiple agents on one node, this port must be unique for each agent. |
| Node address | The hostname of the node on which the Agent service is running.  |

12. Click **Install**.  
» The installation of the Jobserver starts.
13. On Windows, you may see User Account Control warnings requesting to make changes to your device.



Click **Yes** for each of the requests, if you click **No**, the installation will fail.

14. Click **Exit**.  
» The Jobserver service is installed on your node.

## What's next?

[Add](#) the Jobserver service to your environment and then [add](#) the Jobserver to the Data Governance Center service in Collibra Console.

For more information about the Jobserver configuration, consult the [Jobserver memory and CPU usage](#) section.

# Complete the setup

In the previous sections, you have installed all possible Collibra DGC services on two or more nodes. To complete the setup, you have to create an environment and add the services to this environment. You need Collibra Console to do this.

## Prerequisites

You have installed at least:

- Collibra Console.
- the DGC service.
- the Repository service.
- the Search service.
- the Monitoring service.

The Jobserver service is optional.

## Steps

1. Open Collibra Console with a user profile that has the **SUPER** role.
  - » Collibra Console opens with the **Infrastructure** page.

### Tip

- The default address to access Collibra Console is `<server hostname>:4402`, but you may have set another port during the installation of Collibra Console. Keep in mind that a firewall of your operating system can block the access to Collibra Console.
- The default credentials to sign in to Collibra Console are *Admin / admin*. We highly recommend that you [edit](#) the Collibra Console administrator's password after signing in for the first time.
- Access to Collibra Console does not require a license.

2. [Add](#) the necessary nodes to the infrastructure. Each node hosts one or more services of your Collibra DGC environment.
3. [Create](#) a new environment.
4. [Add services](#) to the environment.

A fully functional environment requires the Data Governance Center, Repository,

Search and Monitoring services.

**Note** The Jobserver service is only required if you are ingesting data with Data Catalog. See [Add a Jobserver to the Data Governance Center service](#) for more information.

5. In the tab pane, click the name of the created environment.

**Tip** If your environment is missing a mandatory service, it will be indicated and you cannot start the environment.

The screenshot shows the 'Infrastructure' section of the Collibra console. On the left, a sidebar lists 'ENVIRONMENTS' with 'Default environment' selected. The main content area shows the configuration for 'Environment: Default environment', which is marked as 'Incomplete'. A message states: 'To start the environment, add the following service(s): Repository, Monitoring, Search'. Below this, there are buttons for 'Stop', 'Start', 'Create a diagnostic file', and 'More'. The 'Environment services' section contains a table with the following data:

| Service                | Node         | Status    |
|------------------------|--------------|-----------|
| Data Governance Center | Default node | ● Stopped |

6. Click ► **Start**.

» If all services and the environment have the **running** status, you have successfully started Collibra DGC.

## What's next?

[Upload](#) your license to start using the environment.

**Tip** If you want to register data sources in Data Catalog, you have to [configure](#) the Jobserver.

## Create a Collibra DGC environment

A Collibra Data Governance Center environment is a collection of services that are logically linked together.

**Note** With Collibra Console, you can manage many nodes, but these nodes must be on the same version as your Collibra Console.

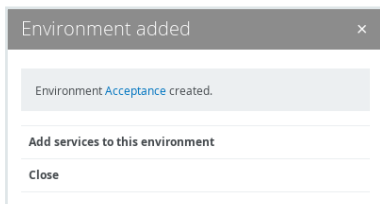
## Steps

1. Open Collibra Console with a user profile that has the **SUPER** role.
  - » Collibra Console opens with the **Infrastructure** page.

### Tip

- The default address to access Collibra Console is `<server hostname>:4402`, but you may have set another port during the installation of Collibra Console. Keep in mind that a firewall of your operating system can block the access to Collibra Console.
- The default credentials to sign in to Collibra Console are *Admin / admin*. We highly recommend that you [edit](#) the Collibra Console administrator's password after signing in for the first time.

2. In the tab pane, click **Add / Create**.
  - » The **Add / Create** dialog box appears.
3. Click **Create environment**.
  - » The **Create Environment** dialog box appears.
4. Enter a name.
5. Click **Create Environment**.



6. Do one of the following:
  - Click **Close** to end the wizard.
  - Click **Add services to this environment** to immediately [add services](#).

**Note** If the node that hosts the service you want to add is not yet available in Collibra Console, click **Add services from a new node** under the drop-down list and [add](#) the node details.

## Add a node to your infrastructure

A node is a physical server that runs one or more services of a Collibra Data Governance Center environment.

## Prerequisites

- The node that you want to add to your infrastructure must be up and running and reachable from the Console that you are using.
- The version of the node must match the version of Collibra Console.

**Tip** To add a node that was previously registered to another Collibra Console, see the knowledge base on the [Collibra Support Portal](#).

## Steps

1. Open Collibra Console with a user profile that has the **SUPER** role.
  - » Collibra Console opens with the **Infrastructure** page.

### Tip

- The default address to access Collibra Console is `<server hostname>:4402`, but you may have set another port during the installation of Collibra Console. Keep in mind that a firewall of your operating system can block the access to Collibra Console.
- The default credentials to sign in to Collibra Console are *Admin / admin*. We highly recommend that you [edit](#) the Collibra Console administrator's password after signing in for the first time.

2. In the tab pane, click **Add / Create**.
  - » The **Add / Create** dialog box appears.
3. Click **Add node**.
  - » The **Add node** dialog box appears.
4. Enter the necessary information.

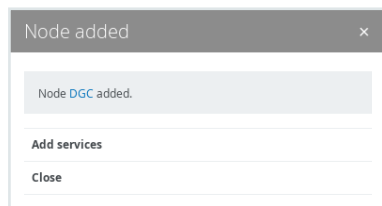
| Field     | Description                           |
|-----------|---------------------------------------|
| Node name | Enter a meaningful name for the node. |



| Field    | Description  |
|----------|--|
| Hostname | <p>Enter the hostname or IP address of the node, for example <i>192.168.1.100</i> or <i>repository-node-A</i>.</p> <p>If you use a hostname, make sure that the Collibra Console can resolve the hostname.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p><b>Note</b> Do not reuse hostnames, every hostname must be unique. If you reuse a hostname for a node that will be used in a <a href="#">repository cluster</a>, the cluster won't synchronize.</p> </div> |
| Port     | Enter the agent port. This is the port through which Collibra Console connects to the node. The default value is 4401.   |

5. Click **Add node**

6. Click **Close**.



## Add a service to an environment

A Collibra Data Governance Center environment consists of a collection of services, such as the DGC service and the Repository service. A service is hosted on a node. To add a service to an environment, the node must be [added](#) to the infrastructure that is managed by Collibra Console.

You can add a service to an environment in the following ways:

- Add a service via the [global Add / Create button](#).
- Add a service via the [environment details](#).
- Add services while [creating an environment](#).

**Tip** Make sure that the environment is stopped before adding services.

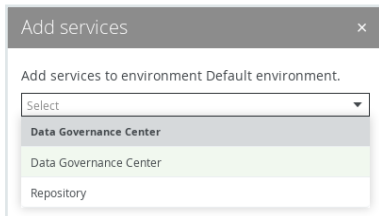
## Via global Add / Create button

1. Open Collibra Console with a user profile that has the **SUPER** role.
  - » Collibra Console opens with the **Infrastructure** page.

### Tip

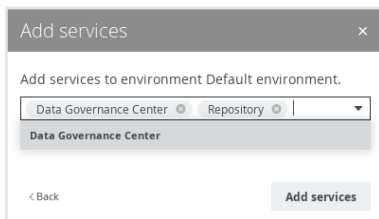
- The default address to access Collibra Console is `<server hostname>:4402`, but you may have set another port during the installation of Collibra Console. Keep in mind that a firewall of your operating system can block the access to Collibra Console.
- The default credentials to sign in to Collibra Console are *Admin / admin*. We highly recommend that you [edit](#) the Collibra Console administrator's password after signing in for the first time.

2. In the tab pane, click **Add / Create**.
  - » The **Add / Create** dialog box appears.
3. Click **Add services to environment / cluster**.
  - » The **Select environment** dialog box appears.
4. Select the **Environment** option and select an environment from the drop-down list.
5. Click **Next**.
  - » The **Add services** dialog box appears.
6. Click the relevant services in the drop-down list.

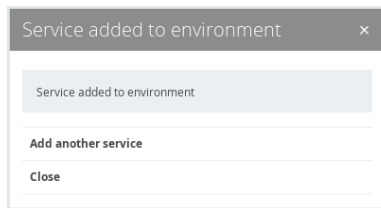


**Note** If the node that hosts the service you want to add is not yet available in Collibra Console, click **Add services from a new node** under the drop-down list and [add](#) the node details.

7. Click **Add services**.

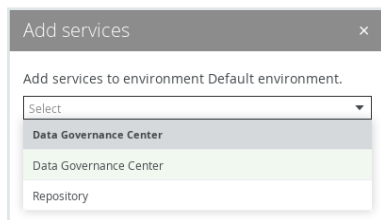


8. When you have added all services, click **Close**.



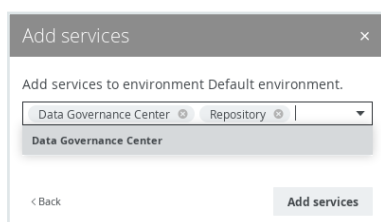
## Via environment details

1. Open Collibra Console with a user profile that has the **SUPER** role.
  - » Collibra Console opens with the **Infrastructure** page.
2. In the tab pane, click the name of your environment.
  - » The environment details appear.
3. Click **Add services**.
  - » The **Add services** dialog box appears.
4. Click the relevant services in the drop-down list.

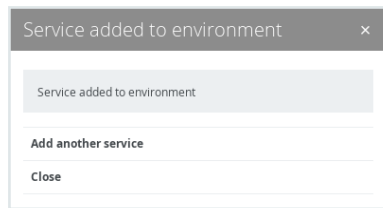


**Note** If the node that hosts the service you want to add is not yet available in Collibra Console, click **Add services from a new node** under the drop-down list and [add](#) the node details.

5. Click **Add services**.



6. When you have added all services, click **Close**.



## Add a Jobserver to the DGC service

To register a data source and create a data profile in Collibra Data Governance Center, you need the Jobserver service.

If you don't have a Jobserver installed and [configured](#) in your environment, the **Register data source** action will be grayed out in the global create menu of Collibra Data Governance Center.

### Steps

1. Open the DGC service settings for editing:
2. In the **Jobserver** section, click **Add**.

## 3. Enter the necessary information:

| Setting                       | Description   |
|-------------------------------|---|
| Jobserver list                | The list of registered Jobserver instances.   |
| Name                          | <p>The name of the Jobserver as it will appear when you register a data source in Data Catalog.</p> <p>The name is a freely chosen name but it is recommended to only use alphanumerical characters and dashes, for example Jobserver-1.</p> <p>You will have to use this name as the <a href="#">ID of the gateway</a> and in the <a href="#">address</a> of this configuration.</p> |
| Protocol                      | <p>The protocol that is used for the communication between the Data Governance Center service and the Jobserver service.</p> <p>It is recommended to use HTTPS, especially if the services are hosted in different network segments.</p>  |
| Address                       | The address (IP address, URL, hostname) of the Jobserver.   |
| Trusted server CA certificate | <p>The certificate of the trusted CA needed to validate the server certificate. If blank, the default truststore will be used. The default truststore is defined in the <a href="#">SSL configuration section</a> of the DGC service.</p> <p>The CA certificate of the server party (Jobserver).</p>  |
| Client certificate            | The client certificate offered by the DGC service to the server. If blank, you cannot select <a href="#">mutual authentication</a> as the Jobserver service authentication level.   |
| Client private key            | The private key of the DGC service's certificate.   |

| Setting                   | Description   |
|---------------------------|---|
| Table profiling data size | The approximate maximum disk size of the data in MB that will be used to profile a table. The value cannot exceed 10,000.                           |
| Test connection timeout   | This timeout is a time limit (in seconds) after which the connection test is stopped and a timeout error is shown. The default value is 60 seconds. |

4. Click the green **Save all** button.

**Tip** You can add as many [Jobserver services](#) as you want.

## Restore a backup from a previous version

If you want to upgrade Collibra Data Governance Center to 5.7, you can restore the backup from a previous version on a newly installed 5.7 environment.

### Warning

- If you restore a backup, you will lose all current Collibra DGC data.
- Backups from versions older than 5.5.x do not include certificates. You have to reinstall any necessary certificates, for example for secure communication with the Jobserver.
- If you restore a backup that does not include history and was made from a version older than 5.7.x, the [data quality](#) metrics will not work correctly. To solve this issue, after you restore the backup in your latest environment, upgrade the data, create a new backup and restore the new backup in the same environment.

## Steps

1. Open Collibra Console with a user profile that has at least the **ADMIN** role.
  - » Collibra Console opens with the **Infrastructure** page.
2. Click the name of an environment to show its details.

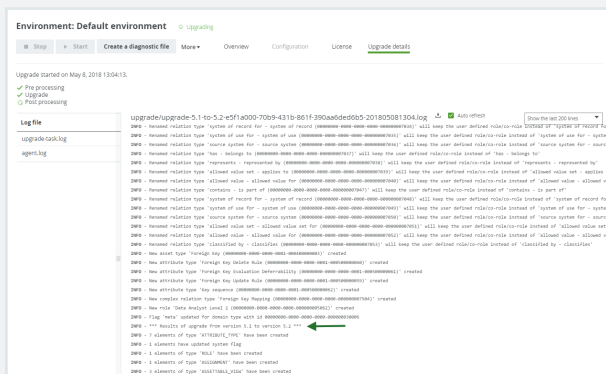
3. Click **More** → **Restore from a previous version**.
4. Click the version of the backup:

| Previous version | Substeps   |
|------------------|--|
| 4.5.x or 4.6.x   | <ol style="list-style-type: none"> <li>i. Accept the limitations for restoring this backup. See <a href="#">Limitations of the upgrade from 4.5.x / 4.6.x</a>.</li> <li>ii. Click <b>Next</b>.</li> <li>iii. Upload or drop the backup in the <b>Upload backup</b> box.</li> <li>iv. Click <b>Restore backup and upgrade</b>.               <ul style="list-style-type: none"> <li>» The backup is restored and the upgrade of the repository is automatically started.</li> </ul> </li> </ol>   |
| 5.x              | <ol style="list-style-type: none"> <li>i. Select the <b>Upload backup</b> option:           <ul style="list-style-type: none"> <li>▪ <b>Upload backup</b>: Upload or drop the backup in the <b>Upload backup</b> box.</li> <li>▪ <b>Choose an existing backup</b>: Select the backup that you want to restore from the <b>Backup</b> drop-down menu.</li> </ul> </li> <li>ii. Click <b>Restore backup and upgrade</b>.</li> <li>iii. Select the options that you want to restore.</li> <li>iv. Click <b>Restore backup</b>.           <ul style="list-style-type: none"> <li>» The backup is restored and the upgrade of the repository is automatically started.</li> </ul> </li> </ol> |

## Note

If you look in the upgrade logs (**upgrade-task.log**), you will see one of the following lines near the end:

- INFO - COMPLETED Upgrade the database version to [5.2]
- INFO - \*\*\* Results of upgrade from version 5.1 to version 5.2 \*\*\*



This means that the repository has upgraded to 5.2 at this point. The upgrade to a later version, for example 5.7.13, is performed during the start of the DGC service and is therefore not logged in this log file, but in **dgc.log**, which you can find in the diagnostic file.

# Upgrade the activity history after an upgrade to 2020.11/5.7.7



After an upgrade to 2020.11/5.7.7, the activity history of assets is not automatically visible in Collibra Data Governance Center. To view the activity history, you have to upgrade the history.

## Note

- The backup you restore needs to contain history data. This is one of the options when **creating** a backup.
- This is a one-time only action, subsequent upgrades don't require this extra step.



## Steps

1. In the main menu, click , then  **Settings**.
  - » The [Collibra DGC settings page](#) opens.
2. Click **General**.
  - » The [general settings](#) appear on the **Activities** tab page.
3. At the bottom of the page, click **Upgrade History**.

## What's next?

The history in the backup is converted to the new environment. The conversion time depends on the size of the history in the backup.

You can see the status of the history upgrade by [viewing](#) your activities.

## Post-upgrade actions

After you have successfully upgraded your Collibra Data Governance Center to version 5.7, you may have to execute several manual post-upgrade steps to bring your environment in the same state as before the upgrade.

Keep in mind that the upgrade from 4.5.x/4.6.x to 5.7 has some [limitations](#).

## Post-upgrade configuration for Jobserver

If you are upgrading the Jobserver from 2021.02 to any newer version and there is no communication between the Jobserver and the Collibra DGC environment, check [this troubleshooting article](#).

## Adjusting custom configurations

If you upgrade from 4.5.x or 4.6.x to 5.1 or newer, the configuration options from 4.5.x/4.6.x will be available in the Collibra Console user interface instead of the 4.x configuration file that was visible in the DGC 4.x Settings. During upgrade to 5.1 or newer,

the 4.x configuration file is read, and, where possible, the equivalent 5.1 (or newer) configuration options are set automatically. After upgrade from 4.5.x/4.6.x, you must verify that all your custom configurations in 4.5.x/4.6.x are correctly set in 5.1 or newer.

**Tip** If you upgrade from 5.0 to 5.1 or newer, all configuration options are upgraded correctly, and no manual post-upgrade steps are needed for the configuration.

There are some configuration options from 4.5.x or 4.6.x that are no longer available in 5.1 or newer. These configuration options are listed in the following table. The second column indicates where you could find the configuration in the 4.5.x/4.6.x configuration file.

| Configuration option                           | 4.5.x/4.6.x configuration location                |
|--|---|
| Hibernate cache configuration                  | system/core/hibernate-cache/*                     |
| Method cache configuration                     | system/core/method-cache/*                        |
| Cache aside configuration                      | system/core/cache-aside/*                         |
| Workflow job executor activate boolean         | system/core/workflow/engine/job-executor-activate |
| gcf suppress boolean                           | system/ui/gcf/suppress                            |
| JNDI information for SSL configuration         | system/core/security/ssl/jndi-name                |
| Snapshot in memory paging and ordering boolean | system/core/snapshot/inMemoryPagingOrdering       |
| Use http cache boolean                         | system/core/http-cache/use-http-cache             |

If you are upgrading from 4.5.x/4.6.x, the base URL may no longer be valid.

You have to verify the BaseURL configuration. This was located under `system/core/base-url` in the 4.5.x/4.6.x configuration file. If necessary, adjust this to the base URL of your 5.1 environment (or newer).

## Packaged workflow deployments

In general, when you start your Collibra Data Governance Center environment, all missing packaged workflows are deployed, enabled and configured with the default settings.

**Note** OOTB workflows are not automatically updated after an upgrade.

The following list of rules applies to OOTB workflow deployments in version 5.1 or newer when you (re)start an environment:

- OOTB workflows that are missing (deleted or never deployed), are deployed, enabled and configured with the default settings.
- Deployed OOTB workflows are not automatically updated, even if they are not customized. To install a new version of an OOTB workflow, do either of the following:
  - Remove the existing workflow and then restart the environment. See [Deploy updated packaged workflows](#).
  - Download the updated workflows from the [Community Downloads page](#), customize them if necessary, and [deploy](#) them to your environment.
- If you created a workflow with the name of an OOTB workflow and the actual OOTB workflow is not deployed, the actual OOTB workflow is deployed, enabled and configured with a name having an **OOTB\_** prefix, for example `OOTB_Approval Process`.

**Tip** [Disable](#) the OOTB workflows you do not want to use. If you delete them, they are redeployed when the environment is restarted.




## Deploy updated packaged workflows

After the upgrade to 5.1 or newer, you have to redeploy some packaged workflows to be compatible with the installed Collibra Data Governance Center version.

## Prerequisites

You have a [global role](#) with the Workflow Administration or the System Administration [global permission](#), for example Sysadmin.

## Steps

1. Open Collibra DGC.
2. In the main menu, click , then  **Settings**.
  - » The [Collibra DGC settings page](#) opens.
3. In the tab pane, click **Workflows** → **Definitions**.
4. Click  in the row of the OOTB workflow that you want to delete.

Do this for every OOTB workflow that you want to delete.

**Note** If you delete an OOTB workflow that you have customized, you have to reapply these customizations when the new version of the workflow is deployed.

5. Restart your environment. See [Stop an environment and Start an environment](#) respectively.

Restarting the environment will deploy all deleted OOTB workflows, enable and configure them with the default settings.

## OOTB workflows to redeploy

Upgrading from 5.5 or older to 5.6 or newer, automatically [redeploys all workflows](#) of your environment.

**Tip** We recommend to upgrade to 5.7 or newer and to no longer upgrade to versions older than 5.6

If for any reason you have to upgrade to a version older than 5.6, you have to [redeploy](#) the following packaged workflows.

| OOTB workflow                | BPMN file name             | Upgrade from 4.5.x / 4.6.x | Upgrade from 5.0 |
|------------------------------|----------------------------|----------------------------|------------------|
| Issue Creation               | IssueCreation.bpmn         | Yes                        | Yes              |
| Issue Management             | IssueManagement            | Yes                        | No               |
| Propose New Business Asset   | IntakeBusinessAsset.bpmn   | Yes                        | Yes              |
| Propose New Business Term    | IntakeBusinessTerm.bpmn    | Yes                        | Yes              |
| Propose New Code Value       | IntakeCodeValue.bpmn       | Yes                        | Yes              |
| Propose New Data Asset       | IntakeDataAsset.bpmn       | Yes                        | Yes              |
| Propose New Governance Asset | IntakeGovernanceAsset.bpmn | Yes                        | Yes              |
| Propose New Technology Asset | IntakeTechnologyAsset.bpmn | Yes                        | Yes              |

| OOTB workflow   | BPMN file name                  | Upgrade from 4.5.x / 4.6.x | Upgrade from 5.0 |
|---|---------------------------------|----------------------------|------------------|
| Request Assets Access   | RequestAssetsAccessProcess.bpmn | Yes                        | Yes              |
| <div style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <p>Note This workflow replaces the Request Data Sets Access workflow from versions 5.4 and older.</p> </div> |                                 |                            |                  |

**Tip**

You can download the packaged workflows for this version from the [Community Downloads page](#).

## Edit custom workflows for API changes

If you upgrade from Collibra Data Governance Center 4.5.x/4.6.x to the most recent version, you have to test all your custom workflows due to major API changes. Custom workflows include packaged workflows that are customized and workflows created by you, by a partner or by Collibra Professional Services.

To know all the API changes, see API changes in 5.1 or newer or consult the documentation of the Java beans version 2 in your Collibra Data Governance Center 5.7 environment.

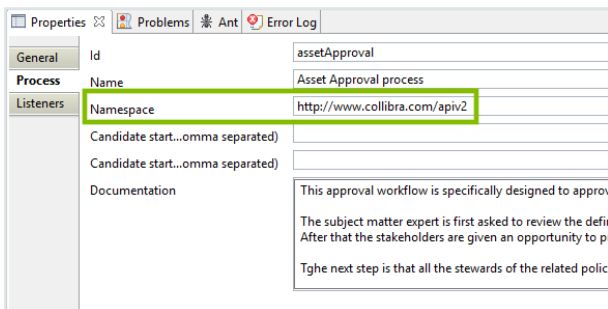
To update your workflows with the version 2 API, see [API v2 in workflows](#) and [Names and unique names in workflows](#).

# API v2 in workflows

Collibra Data Governance Center has two API versions, v1 and v2. Use API v2 methods as v1 is [deprecated](#).

To validate your code against API v2 in workflows, you have to enter the following value as **Namespace** in the **Process** section of the workflow properties:

**<http://www.collibra.com/apiv2>**.



**Note** The value for the API v2 namespace has to be exactly as mentioned above. It is not a reachable URL.

If you use the API v2 namespace:

- You can no longer use API v1 calls in expressions and Groovy. These will be blocked and will result in failed workflows.
- All [form types](#) are API v2 compatible.
- The Java beans expose and use only UUIDs and API v2 objects.

You can find the API v2 delegates, listeners and JavaBeans documentation in the API documentation of your environment. Go to [https://<your\\_dgc\\_environment\\_url>/docs/index.html](https://<your_dgc_environment_url>/docs/index.html) and click Workflow beans.

**Tip** The direct link to this documentation is [https://<your\\_dgc\\_environment\\_url>/docs/java-workflow-api/index.html](https://<your_dgc_environment_url>/docs/java-workflow-api/index.html).

## All Classes

## Packages

```
com.collibra.dgc.workflow.api.bean
com.collibra.dgc.workflow.api.delegate
com.collibra.dgc.workflow.api.exception
com.collibra.dgc.workflow.api.listener
```

## All Classes

```
ActionMailSender
CheckMandatoryFieldCombinationTaskListener
FlushExecutionListener
SendEscalationEventExecutionListener
SetActivityStreamListener
SetFormSubtitleTaskListener
SetResponsibilitiesExecutionListener
StartCollibraConnectFlowDelegate
WorkflowBusinessItem
WorkflowEvent
WorkflowException
WorkflowMail
WorkflowTranslation
WorkflowUsers
WorkflowUtility
```

**Tip** You can use the [Collibra Command Line Interface](#) to test your workflows for deprecated API v1 content and get a report with v2 alternatives.

## Names and unique names in workflows

In Collibra Data Governance Center version 5.4 or newer, including Collibra Data Governance Center, there is a significant API change impacting asset names. Starting with this version, assets have names and unique full names, respectively referred to as `displayName` and `name` in the API. In older versions, you only had `name` to refer to the asset name.



| Action via API | Behavior   |
|----------------|--|
| Add asset      | <p>When you add an asset via an API call, you must enter a <code>name</code> and you can specify a different <code>displayName</code>:</p> <ul style="list-style-type: none"> <li><code>name</code>: This is the mandatory unique full name of the asset and is represented by <b>Full name</b> in the UI.</li> <li><code>displayName</code>: This value is optional and corresponds to the asset <b>Name</b> in the UI.</li> </ul> <p><b>Note</b> If you don't specify a <code>displayName</code>, it automatically defaults to the value of <code>name</code>.</p> |
| Update asset   | <p>You can use <code>name</code> to update the asset <b>Full name</b> and <code>displayName</code>, to update the asset <b>Name</b>.</p> <p><b>Note</b> During an update operation, the <code>displayName</code> does not change if you only update the <code>name</code>.</p>   |

## Example

The following example shows how you can change the asset name in Collibra Data Governance Center 5.3 or older and 5.4 or newer, both using the Java API v2.

### Note

- API v1 is deprecated.
- After an upgrade to 5.4 or newer, verify that workflows that affect asset names use the new API.

### 5.3 or older:

```
assetApi.changeAsset(builders.get("ChangeAssetRequest")
    .id(UUID assetUUID)
```

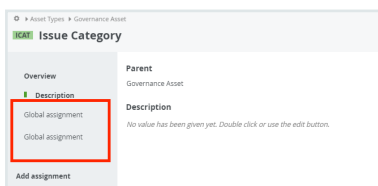
```
.name(String newAssetName)
.build())
```

## 5.4 or newer:

```
assetApi.changeAsset(builders.get("ChangeAssetRequest")
    .id(UUID assetUUID)
    .name(String newAssetFullName)
    .displayName(String newAssetDisplayName)
    .build())
```

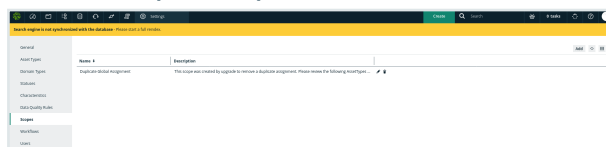
## Duplicate global assignments

In some rare situations, it is possible that there are duplicate global assignments for an asset type in your Collibra Data Governance Center environment, however, a global assignment needs to be unique per asset type.



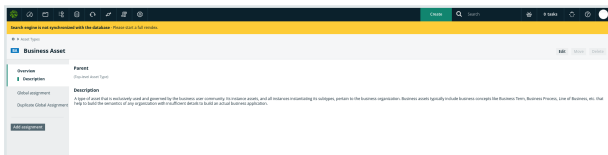
In the event that there are duplicate global assignments, the upgrade to 2021.04 or newer will fix this issue. For each duplicate global assignment the following will happen:

1. A new unique scope is created.



2. One of the duplicate assignments is moved to the new scope. The selected assignment that is considered as duplicate, is randomly chosen.

As a result, the duplicate assignment is again in a unique scope and as such the asset type/scope combination is unique too. The new scope is now available on the asset type page.



## Enable hyperlinking after an upgrade

Automatic hyperlinking takes a lot of disk space, typically 40% to 60% of the repository. When you upgrade a Collibra Data Governance Center environment from 5.6.x or older to 5.7 or newer, the automatic hyperlinking will be disabled. This means that all your automatic hyperlinks in your environment will no longer be visible.

We recommend though to go through all your domains and to consider for each domain if automatic hyperlinking is required or not. [Disable the automatic hyperlinking](#) in a domain as much as possible.

If you want to keep using automatic hyperlinking, you have to [enable](#) it again in Collibra Console.

If you don't use or no longer want to use automatic hyperlinking in your environment, we recommend to [rebuild the search index](#) to free up disk space.

If you have a lot of domains, you can also install the [Manage auto hyperlinks workflow](#) and enable or disable automatic hyperlinking in bulk. Follow the included documentation for the installation and the usage of this workflow.

## Post-upgrade procedure for certain GDPR Solution users

If you are upgrading from Collibra DGC 5.5 or older and you have the GDPR Solution installed, you must carry out this procedure, in order to access your upgraded Collibra

DGC environment.

## Steps

1. Open Collibra Console with a user profile that has at least the **ADMIN** role.
  - » Collibra Console opens with the **Infrastructure** page.
2. **Create** a backup of your environment that only includes customizations.
3. **Download** the backup.
  - » A ZIP file is downloaded to your hard disk.
4. Extract the ZIP file on your local computer.
  - » A folder with the name of the ZIP file is created.
5. In the created folder structure, go to **/dgc/modules** and delete any files that might be in the directory.
6. In the created folder structure, go to **/dgc/page-definitions** and delete any files that might be in the directory.
7. In your file browser, open the extracted backup folder.
8. Create a ZIP file of all the contents in this folder.

**Warning** Do not create a ZIP file from the extracted directory itself. Doing so will result in an invalid backup file.

9. Restore the new backup file:
  - a. Open Collibra Console with a user profile that has at least the **ADMIN** role.
    - » Collibra Console opens with the **Infrastructure** page.
  - b. **Upload** the new ZIP file to Collibra Console.
  - c. **Restore** the customizations of the new ZIP file.
  - d. Wait until your environment is up and running again.
  - » You can now access your Collibra DGC environment.

## Limitations of the upgrade from 4.5.x / 4.6.x

The structure of Collibra Data Governance Center 5.1 or newer has changed in many ways compared to 4.5.x or 4.6.x versions. Collibra has tried to make the upgrade to 5.7 as automated as possible, but due to the difference between the 4.5.x/4.6.x and the 5.7 version, not all data can be upgraded.

## Converted data

The following list contains the data that is automatically converted during the upgrade from 4.5.x/4.6.x to 5.7.

- Binary fact types: Any (untyped) binary fact types in 4.5.x or 4.6.x are upgraded to instances of the new complex relation type 'Fact Type'.
- Categorizations: Any categorizations in 4.5.x or 4.6.x are upgraded to instances of the new relation type 'Asset categorizes/categorized by Asset'.
- Taxonomy: Any taxonomies in 4.5.x or 4.6.x are upgraded to instances of the new relation type 'Asset specializes/generalizes Asset'.

After the upgrade to 5.7, you can view these relations in asset views and diagrams without additional manual steps.

To view them on asset pages, you must add them to the assignment of the asset types for which they exist.

## Unavailable data

Some data will be lost during the upgrade from 4.5.x/4.6.x to 5.2.

- Customizations, amongst others:
  - Custom color per asset type and complex relation type. In the 4.6.x **configuration.xml** file, you could customize the color per asset type and complex relation type that traceability diagrams would use. These customizations are not automatically upgraded during the upgrade to 5.2.  
To set the color and symbol per asset type and complex relation type in 5.2, see [Change how an asset type is represented](#).
- Snapshots: Snapshot are no longer available in 5.x. During the upgrade from 4.5.x/4.6.x to 5.2, all snapshot configurations and snapshot data are removed.

## Troubleshooting the upgrade

## Installation log files

If you encounter an installation failure, you can consult the installation log files for a first investigation.

The installation log file is stored in the Collibra installation directory:

- Default location on Linux as root or user with sudo privileges: **/opt/collibra**
- Default location on Linux as standard user: **~/collibra**
- Default location on Windows Server: **C:\collibra** On Windows, the target installation directory cannot contain spaces.

The log file is **installation.log**.

Only in the event that the installer was not able to create the installation directory, there will be no installation log file.

## Diagnostic files

A diagnostic file is a ZIP file containing files that can be used by support to help solve a support ticket.

For example, it contains log files and some configuration files of the database. It does not contain any actual database content. For more information about logs, see [Logging](#).

## Content

Tip You can also find the log files in the **collibra\_data** directory, for example **/opt/collibra\_data/agent/logs**.

## Console

- **config**: The configuration files of all environments, JVM settings, log settings and server settings.
- **installation**: The installation log file and Collibra DGC installation configuration.

- logs:
  - console\_wrapper.log
  - console.log: Registration of all actions that are done in Collibra Console, for example sign in and out, start and stop an environment, create an environment, ...
  - database\*.log: All transactions of the Collibra Console database.

## Agent

- config: All configuration files of the agent.
- installation: The installation log file and Collibra Data Governance Center installation configuration.
- logs:
  - agent\_commands.log
  - agent\_wrapper.log
  - agent.log: Registration of all actions that are done by the Collibra DGC agent, for example starting jobs, database operations, ...

## DGC

- config: All configuration files of the DGC service such as the configuration, search properties, JVM configuration and so on.
- logs:
  - dgc\_jobs.log: Logging of the actual execution of a job.
  - dgc\_recommender.log: Logging of the recommendation tool to create data sets for Data Catalog.
  - dgc\_validations.log
  - dgc.log: Logging of the DGC service.

## Repo

- config: All configuration files of the PostgreSQL database.
- logs: Logging of the PostgreSQL operations.
- blockedLocksInfo.json
- componentCalls.dmp
- locksInfo.json

- customMetrics.txt: Statistics of the repository such as number of assets, assets per column, active users and number of jobs.

## Search

- config: The physical configuration of the Search service such as port configuration, hostname, keystore and JVM settings.
- logs: All log files of the Search service.
- JSON files with the Search service's cluster configuration, status, statistics and so on.

## Spark-jobserver

- config: All configuration files of the Jobserver service, including its database configuration.
- logs: All log files of the Jobserver service.

## Monitoring

- config: All configuration files of the Monitoring service.
- logs: All log files of the Monitoring service.
- snapshot: The snapshot of the monitoring database that is created when you create the diagnostics file.

## Other files

- benchmark-result.txt: This file contains the performance benchmark results if selected during the [creation](#) of the diagnostic file.
- infraReport.txt: This file contains the details of the infrastructure on which Collibra DGC is installed.
- installation.log: This file contains the logging of the installation process.
- installationConfig.json: This file contains the settings that were selected during the installation process such as TCP ports and installation directory.



## Upgrade fails on backup

One of the steps during an upgrade is the creation of a backup. If creating the backup takes too much time, the upgrade will fail.

### Resolution

[Increase](#) the timeout settings of the backup, the default value is 12 hours or 43 200 000 milliseconds.

## Error "Version mismatch"

If you upgrade a Collibra Data Governance Center 5.0 to 5.1 or newer by overwriting an existing setup, it may occur that you get an error if you start the Data Governance Center service before you have upgraded the repository.

### Error

Version mismatch

There is a version mismatch between Data Governance Center and linked repository. Please upgrade the environment to be able to start the service.

### Resolution

Upgrade the repository as described in [Install 5.7.13 over a 5.2 or newer version](#).

## DGC does not start after an upgrade

If you upgraded a multi-node environment, it is possible that the environment doesn't start anymore.

In Collibra Console you see the following error message:

```
Multi nodes environment cannot mix loopback and public addresses.
```

To work around this issue, you can choose one of the following procedures:

- [via the Console configuration file.](#)
- [via the Collibra Console user interface.](#)

## Collibra Console configuration file

1. Open an SSH session to the node on which Collibra Console runs.
2. Back up **console.db**:

```
cp /collibra_data/console/console.db \
/collibra_data/console/console.db.bck
```

**Note** The path to the file can be different for your environment.

3. **Stop** Collibra Console.
4. Open the file **/collibra\_data/console/console.db** for editing.
5. In the **nodeSet** section, look up the nodes that have a key **hostName** with value `localhost`.

```
"nodeSet" : [ {
  ...
  "hostName" : "localhost",
  "port" : 8081,
  "name" : "NODE NAME",
  "registered" : true,
  ...
} ],
```

6. Replace `localhost` by the private IP address of that node and repeat this for all nodes in this **nodeSet** section.
7. Save and close the file.
8. **Start** Collibra Console.
9. **Start** the environment.

## Collibra Console user interface

1. Open Collibra Console with a user profile that has the **SUPER** role.
  - » Collibra Console opens with the **Infrastructure** page.

2. Remove the relevant services from the environment and optionally repository clusters.

The relevant services are the services that are installed on the nodes which are configured as localhost.

3. **Remove** the node from Collibra Console.
4. **Add** the node again in Collibra Console using the private IP address of the node.

**Note** If you receive the following error, follow the procedure as described on [Collibra Community](#).

```
Error while trying to set up a new node. Is the node
up and address correct?
certificateRegistrationFailed Message:
javax.ws.rs.ProcessingException:
java.net.SocketException:
Unexpected end of file from server.
```

5. Add the services on that node to the **environment** and or **repository cluster**.
6. **Start** the environment.

## Collibra DGC service management

When you install Collibra Data Governance Center, services are installed on your system (Linux as well as Windows). In this section, you learn more about these services and how you can manage them.

## In this chapter

### Collibra services on Linux with root permissions

If you install Collibra Data Governance Center as a root user on a Linux system, the following items are also installed:

- The **Collibra Agent** service
- The **Collibra Management Console**
- An extra user: **collibra**. The extra user is necessary to run the Collibra DGC software. You cannot sign in with this user.

**Note** If you installed Collibra DGC as a normal user, see [Collibra DGC services on Linux as non-root user](#).

To manage the Collibra DGC services, use the default service management tool of your operating system:

```
service collibra-agent <command>
service collibra-console <command>
```

You can use the following commands to control the services:

- start
- stop
- restart
- status

**Note** The services are automatically started after a restart of a node.

## Collibra services on Linux as non-root user

If you have installed Collibra Data Governance Center as a non-root user on Linux, there are no services added to the Linux services list.

**Note** If you installed Collibra DGC as root, see [Collibra DGC services on Linux](#).

You have to manage the Collibra services manually or install them afterwards.

Similar to the installation with the root user, you can only manage the agent and Collibra Console services. The other services in an environment are then managed via the Collibra Console user interface.

In the installation directory, by default `~/collibra`, you find each Collibra service as a separate directory:

- agent
- console

Each of these directories has a **bin** directory, which contains the script to manage these services.

By default, you have to start these services manually after the restart of the node.

## Run the script

- **agent:** `./agent <command>`
- **console:** `./console <command>`

**Tip** If you use the `install` command, the service is added as daemon, which can then be configured to start with the start of your operating system.

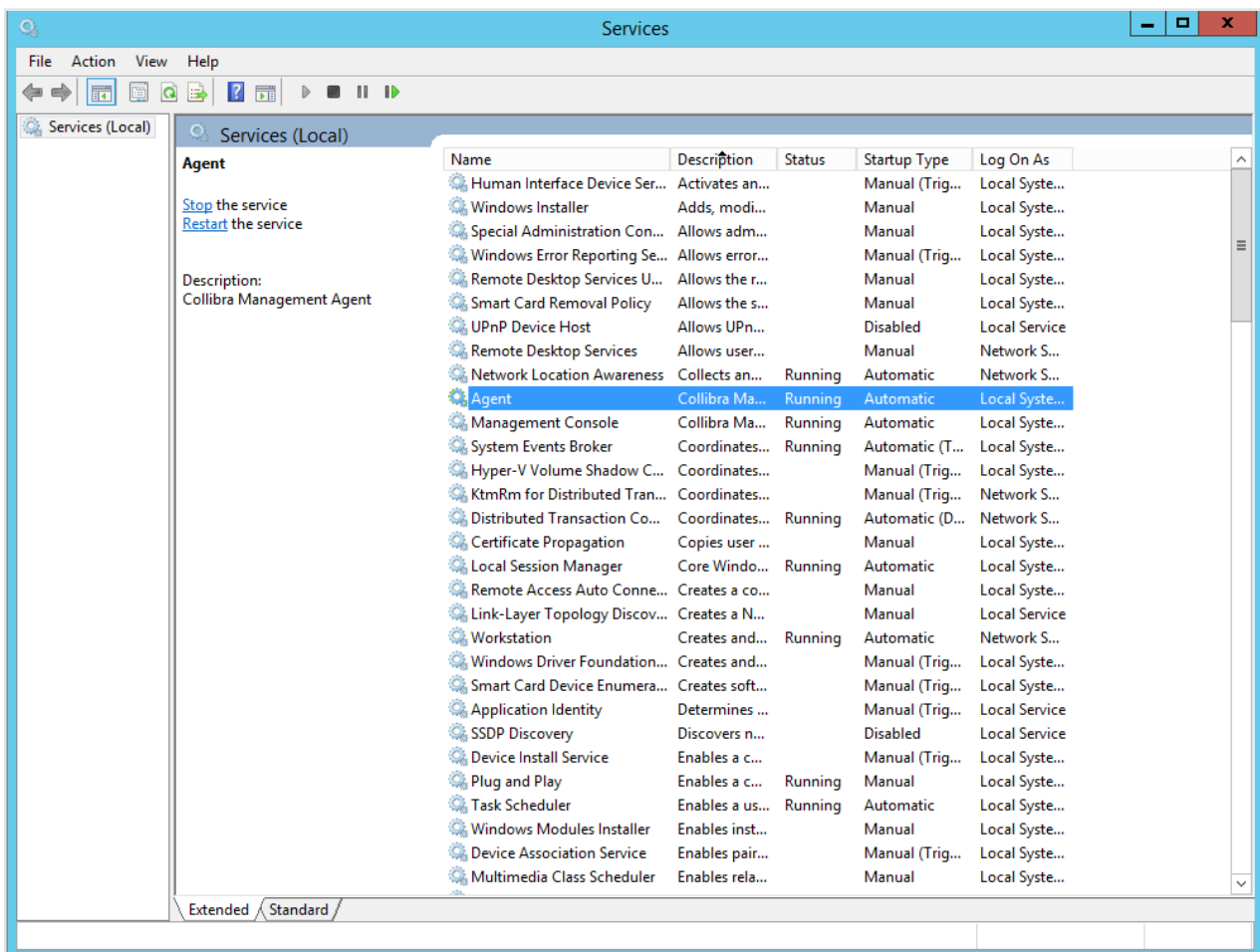
## Commands

| Command     | Description   |
|-------------|---|
| console     | Start in the current console.   |
| start       | Start in the background as a daemon process.  |
| stop        | Stop if running as a daemon or in another console.  |
| restart     | Stop if running and then start.   |
| condrestart | Restart only if already running.  |
| status      | Display the current status.   |
| install     | Install the service as daemon and manage further through the operating system's service management. |

| Command | Description                            |
|---------|--|
| remove  | Remove the service from the node.      |
| dump    | Request a Java thread dump if running. |

## Collibra services on Windows

When you install Collibra Data Governance Center on a Windows system, two services are installed as well, **Agent** and **Management Console**.



The **Startup Type** of both services must be *automatic* or Collibra DGC is not available when the server is restarted.

To manage these services, right-click on the service and select the operation that you want to perform.

# API changes in 5.1 or newer

Collibra Data Governance Center 5.1 and newer have had a major overhaul with many functional, architectural and infrastructural changes to improve our product. Collibra has tried to keep the API backwards compatible as much as possible, but this was not always possible.

In this section you find an overview of the API changes in 5.1 and newer.

## In this chapter

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# Deprecated API v1

In an earlier version of Collibra Data Governance Center, we introduced [Core API v2](#) next to Core API v1. From version 5.5.0 onwards, we have marked some API v1 interfaces, classes, methods, fields and enumerations as deprecated. You can open an overview of all Core API v1 deprecated content by following the **DEPRECATED** link of the Core API v1 documentation.

Deprecated means that you can still use the content in this version, but we recommend to migrate to Core API v2. If the deprecated content has an alternative in Core API v2, it will be clearly indicated in the documentation as shown in the following example:

If there is no alternative available in API v2, we recommend to file a [support ticket](#) or a feature request on the [Collibra Ideation platform](#).

## API changes in 5.1 or newer

A new API (version 2) is introduced and will replace the API version 1 in the future. Everything from API v1 should therefore be regarded as deprecated. Where possible, we recommend to replace all API v1 calls by API v2.

It is possible that not every API v1 method has a corresponding API v2 method. Keep in mind that not all API v1 methods will be replaced, because many API v1 methods were not intended to be available in a public API. API v2 is a cleaner API that can be kept backwards compatible more easily.

As a consequence of the introduction of the API v2, the REST path `/latest` should no longer be used to access the API v1. The existing path `/1.0` should be used instead.

The API documentation is still available via <https://<yourdgcinstance>.yourcompany.com/docs/index.html>, where you can find the Collibra DGC Java and REST APIs.

**Note** REST API calls and errors are stored in the database, not in the logs.

As of version 5.3, you also have an import API.

## Infrastructural changes

With the introduction of Collibra Data Governance Center 5.0, many changes have been introduced in the infrastructure to make it more robust, scalable and future proof. Due to these changes, the API that was available to maintain and configure this infrastructure has been removed or changed. Some of these changes include:

- Use of an embedded PostgreSQL database.
- Introduction of Collibra Console, which is used for configuration, logging, backup and restore, upgrade, and so on.
- Fixed use of a Tomcat application server.

## Examples

- `ApplicationComponent.isRestartNeeded()` has been removed.
- `DatabaseResource` has been removed.

# Architectural changes

## Representation and Term hierarchy

One of the main architectural changes has been applied in the hierarchy of the **Representation** class. Most of the Collibra Data Governance Center model was extended from this **Representation** and its subclass **Term**. Some model concepts have been removed from this hierarchy. As a consequence, you can no longer use these models as if they are a representation or term (asset) in the generic methods of that class hierarchy.

For example, `TermComponent.getTerm(String term)` cannot be used anymore to retrieve a status by id, use `StatusComponent.getStatus(String status)` instead.

The models that are removed from the **Representation** and **Term** hierarchy include:

- Status
- VocabularyType (DomainType)
- ConceptType (AssetType)
- AttributeType
- BinaryFactType (RelationType)
- ComplexRelationType

Because these models extended from the **Representation** and **Term** classes, some functionalities have become obsolete, for example status, attachments, comments, workflows, relations. These APIs have been removed.

Since these models are no longer represented as assets, the meta domains containing these assets are obsolete and have been removed.

These domains include:

- Statuses (00000000-0000-0000-0000-000000006004)
- Vocabulary Types (00000000-0000-0000-0000-000000006002)
- Concept Types (00000000-0000-0000-0000-000000006001)

- Attribute Types (00000000-0000-0000-0000-000000006003)
- Relation Types (00000000-0000-0000-0000-000000006009)
- ComplexRelationTypes (00000000-0000-0000-0000-000000006006)

Some meta asset types, that were used to define the removed types as if they were assets, are not needed anymore.

These meta asset types have been removed:

- Attribute type (00000000-0000-0000-0000-000000005100)
- Relation type (00000000-0000-0000-0000-000000000011)
- STATIC\_LIST Attribute Type (00000000-0000-0000-0000-000000005013)
- MULTI\_STATIC\_LIST Attribute Type (00000000-0000-0000-0000-000000005213)
- DATE Attribute Type (00000000-0000-0000-0000-000000005113)
- DATE\_TIME Attribute Type (00000000-0000-0000-0000-000000005114)
- STRING Attribute Type (00000000-0000-0000-0000-000000005115)
- BOOLEAN Attribute Type (00000000-0000-0000-0000-000000005116)
- NUMERIC Attribute Type (00000000-0000-0000-0000-000000005117)
- SCRIPT Attribute Type (00000000-0000-0000-0000-000000005214)
- USER\_TYPE Attribute Type (00000000-0000-0000-0000-000000005012)

The properties of these models have become real properties on the classes themselves and do no longer make use of the attribute system on assets to define them.

For instance a description is now a direct property of a vocabulary type and is no longer a description attribute on the vocabulary type asset. The API for calls like `getDescription()` has been kept backward compatible as much as possible, but it is no longer possible to use generic methods like

`AttributeComponent.getAttributesOfTypeForRepresentation(String representation, String label)` to retrieve this information. This has also an impact on the viewconfig that is used for exporting.

Two special asset types were used at the top level to define the hierarchy. Their purpose was more academic than needed for the working of the product, and have also been removed:

- Thing (00000000-0000-0000-0000-000000000001)
- Object Type (00000000-0000-0000-0000-000000000005)

## Examples

- VocabularyComponent.findRelationTypes() has been removed.
- RelationReference.getStatusReference() has been removed.
- GET /1.0/concept\_type/{representation}/workflows (ConceptTypeResource) has been removed.

## Complex Relation Type

The Complex Relation Type implementation made use of assignments and the assignment groups. Due to assignment and assignment group changes, the complex relation type implementation and the related API have been changed as well while at the same time the API has been improved with more useful methods.

### Examples

- ComplexRelationTypeComponent.changeRelationTypeContainers() has been removed.
- ComplexRelationType.getMandatoryAttributeTypes() has been added.

## Activity stream (history)

The Activity Stream (history) has been completely refactored. It no longer uses **Hibernate Envers** to store the history information in audit tables. Also, the model to represent the history has changed to let it return more useable information for the users.

Most related APIs have changed and some are deprecated. ActivityStreamComponent is deprecated and ActivityStreamApi should be used instead.

### Examples

- WorkflowComponent.getTaskActivityStream() returns a new model.
- RevisionComponent has been removed.

# Configuration

The Configuration functionality has been refactored completely, therefore the related APIs have also almost completely changed. You have to provide the configuration information by using the **ConfigurationComponent.getProperty()** call.

On application level, you configure Collibra Data Governance Center in Collibra Console instead of adjusting the Collibra DGC configuration file.

## Example

- `ConfigurationComponent.isMonthlyNotificationEnabled()` has been removed.

# Functional changes

Some functions have changed, others are removed. As a consequence the related APIs have been adapted to fit the new functionality or have been removed.

# Assignment

The **Assignment** functionality has been changed and as a consequence most related APIs too.

The assignment of the different aspects (statuses, attribute types, relation types, domain types, ...) now happens directly per asset type. The concepts of assignment containers and assignment groups have been removed.

Articulation rules are also created and assigned directly on the asset type. The concept of an articulation calculator has been removed.

## Examples

- `WorkflowComponent.addAssignmentRule()` requires extra input parameters and returns a modified model.
- `StatusGroupComponent` has been removed.
- `ConceptTypeContainer` has been removed.

## Snapshots

The snapshot functionality has been removed. The related APIs for snapshots, snapshot configurations and comparison of snapshots have been removed.

## License management

The licensing functionality has changed and is now managed through the Collibra Console API.

### Example

- `LicenseComponent.setLicense()` has been removed.

## Taxonomy, Categorization and Classification

The taxonomy, categorization and classification functionalities have been removed. You have to use regular relations to indicate a taxonomy or categorization between assets.

Existing taxonomies are being replaced during an upgrade with relations of the type Asset specializes/generalizes Asset (00000000-0000-0000-0000-000000007065).

For the categorization of new relations types like Issue categorized by, you can use Issue Category (00000000-0000-0000-0000-000000007067).

The concept of a classification does not exist anymore.

### Examples

- `ClassificationComponent` has been removed.
- `TermComponent.isCategorizationType()` has been removed.

## Naming rule

The **Naming rule** functionality has been removed. This functionality was not fully available in Collibra Data Governance Center 4.x and was not used. The related API has been

removed.

## Examples

- `VocabularyComponent.changeNamingRule()` has been removed.
- `NamingRuleReference` has been removed.

## Views

The **Views** functionality has been improved and extended, for example with the concept of a working view. This has impact on its related API.

## Examples

- `ViewComponent.getDefaultViewToShowForLocation()` has been removed.
- `View.setWorkingView()` has been added.

## Tags

Tags are a new functionality introduced in 5.1. Its introduction extends some APIs and has mainly impact on the **Term** model.

## Examples

- `Term.getTags()` method has been added.
- `FoundElement.getTags()` method has been added.

## Fact type

In 4.x, the **Fact type** functionality was a functionality where a relation could be put between two assets without making use of a relation type. This functionality has been replaced by the **Fact Type** complex relation.



During the upgrade, any such existing fact types are being converted into instances of the **Fact Type** complex relation. APIs related to the **Fact type** functionality have been removed.

The Fact Type was often called 'BinaryFactType' which was mostly reusing the same API. The BinaryFactType has now become the relation type due to the representation changes and has therefore impact from the same changes.

## Global create

In Collibra Data Governance Center 5.0, the **Global create** functionality has been introduced which enables creating assets, domains and communities and starting certain workflows from a central create button that is available anywhere in the application. To support this functionality some APIs have been extended. Additionally, an extra flag was added to workflow definitions to indicate whether they can be used by the **Global create** functionality.

### Example

- `WorkflowDefinition.setGlobalCreate()` was added.

## Diagrams

The diagrams were subjected to a big overhaul in Collibra Data Governance Center 5.1/5.7 and their functionality and design have been improved extensively. However, most of the Diagram related APIs are non-public. Therefore, these changes do not have much impact on the v1 public API.

The biggest change is in the format that is being used for the configuration of the diagram views. The JSON syntax used in 5.1/5.7 is updated from the syntax used in 4.5x, 4.6.x or 5.0.

The configuration of a diagram view remains in a JSON format though and has no immediate impact on the method in the public API.

# Integrations

The two packaged integrations that were included in 4.x, Trillium and IBM BG, are no longer supported as of Collibra Data Governance Center 5.0. Their related APIs have been removed.

## Examples

- 1.0/sync/ibm (SyncIBMResource) has been removed.
- 1.0/sync/trillium (SyncTrilliumResource) has been removed.

# Java API changes

| v4.6 Component Class | Unchanged / Removed / Modified | Method                     | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|----------------------|--------------------------------|----------------------------|----------------------------|------------------------|----------------|
| ApplicationComponent | Modified                       | isUpgradePostActionsNeeded | Removed                    | 5.0                    | Infrastructure |
| ApplicationComponent | Modified                       | isRestartNeeded            | Removed                    | 5.0                    | Infrastructure |
| ApplicationComponent | Modified                       | isRestoreInProgress        | Removed                    | 5.0                    | Infrastructure |
| CompareComponent     | Modified                       | compareSnapshots           | Removed                    | 5.1                    | Snapshots      |
| CompareComponent     | Modified                       | compareSnapshotWithCurrent | Removed                    | 5.1                    | Snapshots      |
| CompareComponent     | Modified                       | compareCurrentWithSnapshot | Removed                    | 5.1                    | Snapshots      |

| v4.6 Component Class   | Unchanged / Removed / Modified | Method   | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by   |
|------------------------|--------------------------------|--|----------------------------|------------------------|---------------|
| ConfigurationComponent | Modified                       | Almost all methods removed, configuration was refactored completely.<br>Methods that remained:<br>- getString(String)<br>- clear(String)<br>- setProperty(String, Object)<br>- getProperty(String, Class<T>)<br>- getInteger(String)<br>- getBoolean(String) | Remained                   | 5.0                    | Configuration |
| LicenseComponent       | Modified                       | setLicense   | Removed                    | 5.0                    | License       |
| LoggerComponent        | Unchanged                      |  |                            |                        |               |
| SearchComponent        | Modified                       | search(String search, final List<String> types, int max) - use {@link #search(SearchParameters)}   | Removed                    | 5.0                    |               |

| v4.6 Component Class | Unchanged / Removed / Modified | Method   | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|----------------------|--------------------------------|--|----------------------------|------------------------|----------------|
| SearchComponent      | Modified                       | search(String search, int max) - use {@link #search(SearchParameters)} | Removed                    | 5.0                    |                |
| UserComponent        | Unchanged                      |  |                            |                        |                |
| VerbaliserComponent  | Modified                       | verbalise(AssetType)   | Modified                   | 5.1                    | Representation |
| VerbaliserComponent  | Modified                       | verbalise(RelationType)  | Modified                   | 5.1                    | Representation |
| VerbaliserComponent  | Modified                       | verbalise(AttributeType)   | Modified                   | 5.1                    | Representation |
| WorkflowComponent    | Modified                       | getTaskActivityStream  | Modified                   | 5.1                    | History        |
| WorkflowComponent    | Modified                       | getTaskActivityFilter  | Modified                   | 5.1                    | History        |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                   | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|---------------------------------|-----------------------------------|-------------------------------|--------------------|
| WorkflowComponent           | Modified                              | addAssignmentRule               | Modified                          | 5.1                           | Assignment         |
| WorkflowComponent           | Modified                              | changeAssignmentRule            | Modified                          | 5.1                           | Assignment         |
| ActivityStreamComponent     | Modified                              |                                 |                                   | 5.0                           | History            |
| RevisionComponent           | Removed                               |                                 |                                   |                               | History            |
| ArticulationComponent       | Modified                              | removeArticulationCalculator    | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | getAllArticulationCalculators   | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | getArticulationCalculator       | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | getArticulationCalculatorByName | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | changeArticulationCalculator    | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | addArticulationCalculator       | Removed                           | 5.1                           | Assignment         |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>             | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|---------------------------|-----------------------------------|-------------------------------|--------------------|
| ArticulationComponent       | Modified                              | addArticulationCalculator | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | addAssignmentRule         | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | changeAssignmentRule      | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | changeAssignmentRules     | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | removeAssignmentRule      | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | getAssignmentRule         | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | addArticulationRule       | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | changeArticulationRule    | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | changeArticulationRules   | Removed                           | 5.1                           | Assignment         |
| ArticulationComponent       | Modified                              | removeArticulationRule    | Removed                           | 5.1                           | Assignment         |

| <b>v4.6 Component Class</b>  | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                 | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------------|---------------------------------------|-------------------------------|-----------------------------------|-------------------------------|--------------------|
| AssignmentGroupComponent     | Removed                               |                               |                                   | 5.1                           | Assignment         |
| AttributeTypeGroupComponent  | Removed                               |                               |                                   | 5.1                           | Assignment         |
| ComplexRelationTypeComponent | Modified                              | addAttributeTypeContainer     | Removed                           | 5.1                           | Assignment         |
| ComplexRelationTypeComponent | Modified                              | addRelationTypeContainer      | Removed                           | 5.1                           | Assignment         |
| ComplexRelationTypeComponent | Modified                              | changeAttributeTypeContainers | Removed                           | 5.1                           | Assignment         |
| ComplexRelationTypeComponent | Modified                              | changeRelationTypeContainers  | Removed                           | 5.1                           | Assignment         |



| <b>v4.6 Component Class</b>  | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                                    | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|------------------------------|---------------------------------------|--|-----------------------------------|-------------------------------|-----------------------|
| ComplexRelationTypeComponent | Modified                              | find-ComplexRelationTypesContainingSignifiers    | Removed                           | 5.1                           | Complex Relation Type |
| ComplexRelationTypeComponent | Modified                              | getAttributeTypeContainers                       | Removed                           | 5.1                           | Assignment            |
| ComplexRelationTypeComponent | Modified                              | getAttributeTypes(complexRelationType)           | Removed                           | 5.1                           | Complex Relation Type |
| ComplexRelationTypeComponent | Modified                              | getAttributeTypes(complexRelationType, required) | Removed                           | 5.1                           | Complex Relation Type |
| ComplexRelationTypeComponent | Modified                              | getRelationTypeContainters                       | Removed                           | 5.1                           | Complex Relation Type |
| ComplexRelationTypeComponent | Modified                              | getRelationTypes(complexRelationType)            | Removed                           | 5.1                           | Complex Relation Type |

| <b>v4.6 Component Class</b>  | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                                      | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|------------------------------|---------------------------------------|--|-----------------------------------|-------------------------------|-----------------------|
| ComplexRelationTypeComponent | Modified                              | getRelationTypes(complexRelationType, identifying) | Removed                           | 5.1                           | Complex Relation Type |
| ComplexRelationTypeComponent | Modified                              | removeContainter                                   | Removed                           | 5.1                           | Assignment            |
| ConceptTypeGroupComponent    | Removed                               |  |                                   | 5.1                           | Assignment            |
| MetricGroupComponent         | Removed                               |  |                                   | 5.1                           | Assignment            |
| StatusGroupComponent         | Removed                               |  |                                   | 5.1                           | Assignment            |
| TraceabilityGroupComponent   | Removed                               |  |                                   | 5.1                           | Assignment            |
| ValidationGroupComponent     | Removed                               |  |                                   | 5.1                           | Assignment            |
| AttachmentComponent          | Unchanged                             |  |                                   |                               |                       |

| v4.6 Component Class   | Unchanged / Removed / Modified | Method                                | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|------------------------|--------------------------------|---------------------------------------|----------------------------|------------------------|----------------|
| AttributeComponent     | Modified                       | getAttributesInGroupForRepresentation | Removed                    | 5.1                    | Representation |
| AttributeTypeComponent | Modified                       | getAttributeTypesInGroup              | Removed                    | 5.1                    | Representation |
| BackupComponent        | Removed                        |                                       |                            | 5.0                    | Infrastructure |
| BootstrapComponent     | Modified                       | initialize                            | Removed                    | 5.0                    | Infrastructure |
| BootstrapComponent     | Modified                       | bootstrap                             | Removed                    | 5.0                    | Infrastructure |
| BootstrapComponent     | Modified                       | createBootstrapScript                 | Removed                    | 5.0                    | Infrastructure |
| BootstrapComponent     | Modified                       | getAvailableBootstrapScripts          | Removed                    | 5.0                    | Infrastructure |
| CommentComponent       | Unchanged                      |                                       |                            |                        |                |
| CommunityComponent     | Unchanged                      |                                       |                            |                        |                |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>            | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|--------------------------|-----------------------------------|-------------------------------|--------------------|
| FileComponent               | Unchanged                             |                          |                                   |                               |                    |
| HyperlinkComponent          | Unchanged                             |                          |                                   |                               |                    |
| I18nComponent               | Modified                              | cleanCache               | Removed                           | 5.0                           | Infrastructure     |
| ImpactComponent             | Unchanged                             |                          |                                   |                               |                    |
| InputViewComponent          | Modified                              | getColumnNames           | Modified                          | 5.0                           |                    |
| IOComponent                 | Unchanged                             |                          |                                   |                               |                    |
| OutputViewComponent         | Modified                              | getTaxonomyJSONDataTable | Removed                           | 5.0                           |                    |
| OutputViewComponent         | Modified                              | getTreeJSONDataTable     | Removed                           | 5.0                           |                    |
| IssueComponent              | Unchanged                             |                          |                                   |                               |                    |
| JobComponent                | Unchanged                             |                          |                                   |                               |                    |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                          | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|--|-----------------------------------|-------------------------------|--------------------|
| LogComponent                | Unchanged                             |  |                                   |                               |                    |
| NounExtractorComponent      | Unchanged                             |  |                                   |                               |                    |
| RelationComponent           | Modified                              | changeStatus                           | Removed                           | 5.1                           | Representation     |
| RelationComponent           | Modified                              | findPossibleStatuses                   | Removed                           | 5.1                           | Representation     |
| RelationTypeComponent       | Modified                              | addRelationType                        | Modified                          | 5.1                           | Representation     |
| RelationTypeComponent       | Modified                              | findPossibleRelationTypesForSourceTerm | Modified                          | 5.1                           | Representation     |
| RelationTypeComponent       | Modified                              | findPossibleRelationTypesForTargetTerm | Modified                          | 5.1                           | Representation     |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                                 | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|---|-----------------------------------|-------------------------------|--------------------|
| RelationTypeComponent       | Modified                              | findPossibleRelationTypesForSourceType        | Modified                          | 5.1                           | Representation     |
| RelationTypeComponent       | Modified                              | findPossibleRelationTypesForTargetType        | Modified                          | 5.1                           | Representation     |
| RelationTypeComponent       | Modified                              | findRelationTypesContainingRole               | Modified                          | 5.1                           | Representation     |
| RelationTypeComponent       | Modified                              | find-RelationTypesContainingRoleAndHeadOrTail | Modified                          | 5.1                           | Representation     |
| RelationTypeComponent       | Modified                              | findRelationTypesContainingRoleOrSignifier    | Modified                          | 5.1                           | Representation     |
| RelationTypeComponent       | Modified                              | getAllRelationTypes                           | Modified                          | 5.1                           | Representation     |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|-----------------------------|---------------------------------------|--|-----------------------------------|-------------------------------|-----------------------|
| RelationTypeComponent       | Modified                              | getCodeRelationType  | Modified                          | 5.1                           | Representation        |
| RelationTypeComponent       | Modified                              | getRelationType  | Modified                          | 5.1                           | Representation        |
| BinaryFactTypeComponent     | Removed                               |  |                                   | 5.1                           | Representation        |
| ClassificationComponent     | Removed                               |  |                                   | 5.1                           | Categorization        |
| ComplexRelationComponent    | Modified                              | getRelations   | Removed                           | 5.1                           | Complex Relation Type |
| ConceptTypeComponent        | Modified                              | ConceptType addConceptType(String signifier, String parent); | Modified                          | 5.1                           | Representation        |

| v4.6 Component Class | Unchanged / Removed / Modified | Method  | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|----------------------|--------------------------------|---|----------------------------|------------------------|----------------|
| ConceptTypeComponent | Modified                       | ConceptType addConceptType(String signifier)  | Modified                   | 5.1                    | Representation |
| ConceptTypeComponent | Modified                       | Term addConceptTypeWithCustomUUID (String signifier, String uuid)   | Modified                   | 5.1                    | Representation |
| ConceptTypeComponent | Modified                       | Term addConceptTypeWithCustomUUID (String signifier, String parent, String uuid)  | Modified                   | 5.1                    | Representation |
| ConceptTypeComponent | Modified                       | List<ConceptType> findConceptTypesContainingSignifier(String searchSignifier, boolean includeSystem, int offset, int limit) | Modified                   | 5.1                    | Representation |



| v4.6 Component Class | Unchanged / Removed / Modified | Method  | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|----------------------|--------------------------------|---|----------------------------|------------------------|----------------|
| ConceptTypeComponent | Modified                       | List<ConceptType> find-ConceptTypesContainingSignifier(String searchSignifier, int offset, int limit)   | Modified                   | 5.1                    | Representation |
| ConceptTypeComponent | Modified                       | List<ConceptType> find-ConceptTypesContainingSignifier(String searchSignifier, boolean includeSystem, String resourceType, int offset, int limit) | Removed                    | 5.1                    | Representation |
| ConceptTypeComponent | Modified                       | ConceptType getConceptType(String conceptType)  | Modified                   | 5.1                    | Representation |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>   | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|---|-----------------------------------|-------------------------------|--------------------|
| ConceptTypeComponent        | Modified                              | List<ConceptType> getConceptTypes()   | Modified                          | 5.1                           | Representation     |
| ConceptTypeComponent        | Modified                              | ConceptType getBusinessTermType()   | Modified                          | 5.1                           | Representation     |
| ConceptTypeComponent        | Modified                              | ConceptType getCodeTermType()   | Modified                          | 5.1                           | Representation     |
| ConceptTypeComponent        | Modified                              | Map<ConceptType, Object> getConceptTypeHierarchy()                            | Modified                          | 5.1                           | Representation     |
| ConceptTypeComponent        | Modified                              | List<Representation> findPossibleAttributeOrRelationTypes(String conceptType) | Removed                           | 5.1                           | Representation     |

| v4.6 Component Class    | Unchanged / Removed / Modified | Method  | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|-------------------------|--------------------------------|---|----------------------------|------------------------|----------------|
| RepresentationComponent | Modified                       | boolean isSpecializedConceptOf(String toTest, String parent)                        | Removed                    | 5.1                    | Representation |
| RepresentationComponent | Modified                       | Collection<Representation> getSpecializedConcepts(String representation, int limit) | Removed                    | 5.1                    | Representation |
| RepresentationComponent | Modified                       | List<AttributeTypeGroup> getAttributeAndRelationGroups(String representation)       | Removed                    | 5.1                    | Assignment     |
| RepresentationComponent | Modified                       | List<StatusGroup> getStatusGroups(String representation)                            | Removed                    | 5.1                    | Assignment     |
| RepresentationComponent | Modified                       | List<ConceptTypeGroup> getConceptGroups(String representation)                      | Removed                    | 5.1                    | Assignment     |

| v4.6 Component Class    | Unchanged / Removed / Modified | Method   | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|-------------------------|--------------------------------|--|----------------------------|------------------------|----------------|
| RepresentationComponent | Modified                       | Representation changeGeneralConcept (String specializedRepresentation, String generalRepresentation)   | Removed                    | 5.1                    | Representation |
| RepresentationComponent | Modified                       | Job changeGeneralConceptsAsync (List<String> specializedRepresentations, String generalRepresentation) | Removed                    | 5.1                    | Representation |
| RepresentationComponent | Modified                       | Representation removeGeneralConcept (String representation)  | Removed                    | 5.1                    | Representation |
| RepresentationComponent | Modified                       | List<Representation> getAllGeneralConcepts(String representation)                                      | Removed                    | 5.1                    | Representation |
| RepresentationComponent | Modified                       | boolean hasGeneralConcept(String representation, String generalConcept)                                | Removed                    | 5.1                    | Representation |

| v4.6 Component Class    | Unchanged / Removed / Modified | Method  | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|-------------------------|--------------------------------|---|----------------------------|------------------------|----------------|
| RepresentationComponent | Modified                       | List<Representation> getAllSpecializedConcepts(String representation)           | Removed                    | 5.1                    | Representation |
| StatusComponent         | Unchanged                      |   |                            |                        |                |
| TermComponent           | Modified                       | Term getRootType(String term)   | Modified                   | 5.1                    | Representation |
| TermComponent           | Modified                       | boolean isCategorizationType(String term)                                       | Removed                    | 5.1                    | Categorization |
| TermComponent           | Modified                       | Term removeCategorizationType(String generalConcept, String categorizationType) | Removed                    | 5.1                    | Categorization |
| TermComponent           | Modified                       | Term removeCategory(String category)  | Removed                    | 5.1                    | Categorization |

| v4.6 Component Class | Unchanged / Removed / Modified | Method   | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|----------------------|--------------------------------|--|----------------------------|------------------------|----------------|
| TermComponent        | Modified                       | List<Term> addCategories(String vocabulary, Collection<String> signifiers, String generalConcept, String categorizationType) | Removed                    | 5.1                    | Categorization |
| TermComponent        | Modified                       | Term addCategory(String vocabulary, String signifier, String generalConcept, String categorizationType)                      | Removed                    | 5.1                    | Categorization |
| TermComponent        | Modified                       | List<Term> changeCategorizationType(Collection<String> categories, String categorizationType)                                | Removed                    | 5.1                    | Categorization |
| TermComponent        | Modified                       | List<Term> changeCategorizationType(Collection<String> categories, String generalConcept, String categorizationType)         | Removed                    | 5.1                    | Categorization |
| TermComponent        | Modified                       | Term changeCategorizationType(String category, String categorizationType)  | Removed                    | 5.1                    | Categorization |

| v4.6 Component Class | Unchanged / Removed / Modified | Method  | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|----------------------|--------------------------------|---|----------------------------|------------------------|----------------|
| TermComponent        | Modified                       | Term changeCategorizationType(String category, String generalConcept, String categorizationType)          | Removed                    | 5.1                    | Categorization |
| TermComponent        | Modified                       | List<Term> findCategories(String generalConcept, String categorizationType)                               | Removed                    | 5.1                    | Categorization |
| TermComponent        | Modified                       | List<Term> findCategorizationTypes(String generalConcept) findCategorizationTypes (String generalConcept) | Removed                    | 5.1                    | Categorization |
| TermComponent        | Modified                       | List<Term> findPossibleObjectTypes(String term)   | Removed                    | 5.1                    | Representation |
| LdapComponent        | Unchanged                      |   |                            |                        |                |
| RightsComponent      | Unchanged                      |   |                            |                        |                |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|--|-----------------------------------|-------------------------------|--------------------|
| MetadataComponent           | Modified                              | String moveIDPMetadata(String file)                                    | Removed                           | 5.0                           |                    |
| SnapshotComponent           | Removed                               |  |                                   | 5.1                           | Snapshots          |
| StatisticComponent          | Unchanged                             |  |                                   |                               |                    |
| MappingComponent            | Unchanged                             |  |                                   |                               |                    |
| UpgradeComponent            | Removed                               |  |                                   | 5.0                           | Infrastructure     |
| ViewComponent               | Modified                              | View getDefaultViewToShowForLocation(String location, View.EType type) | Removed                           | 5.0                           | Views              |
| ViewComponent               | Modified                              | void setLastSeenView(String view, String resource)                     | Modified                          | 5.1                           | Views              |



| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|--|-----------------------------------|-------------------------------|--------------------|
| ViewComponent               | Modified                              | List<View> getPossibleViewsForResource (String location, boolean startsWith, String resource, String type) | Removed                           | 5.0                           | Views              |
| ViewComponent               | Modified                              | View getDefaultViewToShowForResource (String location, String resource, String type)                       | Removed                           | 5.0                           | Views              |
| ViewRightComponent          |                                       |  |                                   |                               |                    |
| VocabularyComponent         | Modified                              | Vocabulary changeNamingRule(String vocabulary, String newNamingRule)                                       | Removed                           | 5.0                           | Naming Rule        |
| VocabularyComponent         | Modified                              | List<Resource> findPossibleAttributeOrRelationTypes( String vocabulary)                                    | Modified                          | 5.1                           | Representation     |
| VocabularyComponent         | Modified                              | List<RelationType> findPossibleFactTypes( String vocabulary)   | Modified                          | 5.1                           | Representation     |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|--|-----------------------------------|-------------------------------|--------------------|
| VocabularyComponent         | Modified                              | List<Term> findPossibleObjectTypes(String vocabulary)                              | Modified                          | 5.1                           | Representation     |
| VocabularyComponent         | Modified                              | List<BinaryFactType> findPossibleRelationTypes(String vocabulary)                  | Modified                          | 5.1                           | Representation     |
| VocabularyComponent         | Modified                              | List<BinaryFactType> findRelationTypes (String vocabulary)                         | Removed                           | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | addVocabularyType(java.lang.String signifier)                                      | Modified                          | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | DomainType addVocabularyType (java.lang.String signifier, java.lang.String parent) | Modified                          | 5.1                           | Representation     |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|--|-----------------------------------|-------------------------------|--------------------|
| VocabularyTypeComponent     | Modified                              | DomainType addVocabularyTypeWithCustomUUID(java.lang.String signifier, java.lang.String uuid)                          | Modified                          | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | DomainType addVocabularyTypeWithCustomUUID(java.lang.String signifier, java.lang.String parent, java.lang.String uuid) | Modified                          | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | DomainType findVocabularyTypeByName(java.lang.String domainTypeName)   | Modified                          | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | java.util.List<DomainType> findVocabularyTypesContainingSignifier(java.lang.String searchSignifier)                    | Modified                          | 5.1                           | Representation     |

| <b>v4.6 Component Class</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|--|-----------------------------------|-------------------------------|--------------------|
| VocabularyTypeComponent     | Modified                              | java.util.List<DomainType> getAllSpecializedVocabularyTypes(java.lang.String domainType) | Modified                          | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | DomainType getCodeVocabularyType()   | Modified                          | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | DomainType getGlossaryVocabularyType()   | Modified                          | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | DomainType getVocabularyType (java.lang.String vocabularyType)                           | Modified                          | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | java.util.Map<DomainType,java.lang.Object> getVocabularyTypeHierarchy()                  | Modified                          | 5.1                           | Representation     |
| VocabularyTypeComponent     | Modified                              | java.util.List<DomainType> getVocabularyTypes()  | Modified                          | 5.1                           | Representation     |

## Java Model changes

| v4.6 Model             | Unchanged / Removed / Modified | Method                 | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by |
|------------------------|--------------------------------|------------------------|----------------------------|------------------------|-------------|
| EntityWithId           | Unchanged                      |                        |                            |                        |             |
| Resource               | Modified                       | checkConstraint()      | Removed                    | 5.0                    |             |
| Resource               | Modified                       | getNaturalIdentifier() | Added                      | 5.0                    |             |
| Resource               | Modified                       | getParent()            | Added                      | 5.0                    |             |
| Resource               | Modified                       | updateLastModified()   | Modified                   | 5.0                    |             |
| Resource18n            | Unchanged                      |                        |                            |                        |             |
| Verbalisable           | Unchanged                      |                        |                            |                        |             |
| ArticulationCalculator | Removed                        |                        |                            | 5.1                    | Assignment  |

| <b>v4.6 Model</b>      | <b>Unchanged / Removed / Modified</b> | <b>Method</b>        | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------|---------------------------------------|----------------------|-----------------------------------|-------------------------------|--------------------|
| ArticulationRule       | Modified                              | getAttributeTypeId() | Added                             | 5.1                           |                    |
| ArticulationRule       | Modified                              | getAttributeValue()  | Removed                           | 5.1                           |                    |
| ArticulationRule       | Modified                              | getStatusId()        | Added                             | 5.1                           |                    |
| ArticulationRule       | Modified                              | setAttributeValue()  | Removed                           | 5.1                           |                    |
| AssignmentGroup        | Removed                               |                      |                                   | 5.1                           | Assignment         |
| AssignmentRule         | Modified                              | deepCopy(View)       | Added                             | 5.0                           | Assignment         |
| AssignmentRule         | Modified                              | getView()            | Added                             | 5.0                           | Assignment         |
| AssignmentRule         | Modified                              | getVocabularyType()  | Added                             | 5.1                           | Assignment         |
| AttributeTypeContainer | Removed                               |                      |                                   | 5.1                           | Assignment         |
| AttributeTypeGroup     | Removed                               |                      |                                   | 5.1                           | Assignment         |

| <b>v4.6 Model</b>        | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|--------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| ComplexRelationTypeGroup | Removed                               |               |                                   | 5.1                           | Assignment         |
| ConceptTypeContainer     | Removed                               |               |                                   | 5.1                           | Assignment         |
| ConceptTypeGroup         | Removed                               |               |                                   | 5.1                           | Assignment         |
| MetricGroup              | Removed                               |               |                                   | 5.1                           | Assignment         |
| RepresentationContainer  | Removed                               |               |                                   | 5.1                           | Assignment         |
| StatusContainer          | Removed                               |               |                                   | 5.1                           | Assignment         |
| StatusGroup              | Removed                               |               |                                   | 5.1                           | Assignment         |
| TraceabilityGroup        | Removed                               |               |                                   | 5.1                           | Assignment         |
| ValidationGroup          | Removed                               |               |                                   | 5.1                           | Assignment         |
| ValidationRuleContainer  | Removed                               |               |                                   | 5.1                           | Assignment         |

| <b>v4.6 Model</b>       | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| Attachment              | Unchanged                             |               |                                   |                               |                    |
| AttachmentFactory       | Unchanged                             |               |                                   |                               |                    |
| ResourceWithAttachment  | Unchanged                             |               |                                   |                               |                    |
| Attribute               | Modified                              | getLabel()    | Removed                           | 5.1                           | Representation     |
| Attribute               | Modified                              | getType()     | Added                             | 5.1                           | Representation     |
| Attribute               | Modified                              | getValues()   | Added                             | 5.1                           | Representation     |
| BooleanAttribute        | Unchanged                             |               |                                   |                               |                    |
| DateAttribute           | Unchanged                             |               |                                   |                               |                    |
| DateTimeAttribute       | Unchanged                             |               |                                   |                               |                    |
| MultiValueListAttribute | Unchanged                             |               |                                   |                               |                    |



| <b>v4.6 Model</b>        | <b>Unchanged / Removed / Modified</b> | <b>Method</b>          | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|--------------------------|---------------------------------------|------------------------|-----------------------------------|-------------------------------|--------------------|
| NumericAttribute         | Unchanged                             |                        |                                   |                               |                    |
| ScriptAttribute          | Unchanged                             |                        |                                   |                               |                    |
| SingleValueListAttribute | Modified                              | setValue(String value) | Removed                           | 5.0                           |                    |
| StringAttribute          | Unchanged                             |                        |                                   |                               |                    |
| Comment                  | Unchanged                             |                        |                                   |                               |                    |
| CommentFactory           | Unchanged                             |                        |                                   |                               |                    |
| ResourceWithComment      | Unchanged                             |                        |                                   |                               |                    |
| Community                | Unchanged                             |                        |                                   |                               |                    |
| CommunityFactory         | Unchanged                             |                        |                                   |                               |                    |
| DatabaseConstants        | Removed                               |                        |                                   | 5.0                           | Infrastructure     |

| <b>v4.6 Model</b>    | <b>Unchanged / Removed / Modified</b> | <b>Method</b>       | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|----------------------|---------------------------------------|---------------------|-----------------------------------|-------------------------------|--------------------|
| Hyperlink            | Unchanged                             |                     |                                   |                               |                    |
| Job                  | Unchanged                             |                     |                                   |                               |                    |
| ConstraintNamingRule | Removed                               |                     |                                   | 5.0                           | Naming Rule        |
| GeneratorNamingRule  | Removed                               |                     |                                   | 5.0                           | Naming Rule        |
| NamingRule           | Removed                               |                     |                                   | 5.0                           | Naming Rule        |
| NamingRuleFactory    | Removed                               |                     |                                   | 5.0                           | Naming Rule        |
| DatabaseProperty     | Unchanged                             |                     |                                   |                               |                    |
| Relation             | Modified                              | getRelationTypeId() | Added                             | 5.1                           | Representation     |
| Relation             | Modified                              | getTargetId()       | Added                             | 5.1                           |                    |

| <b>v4.6 Model</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|-------------------|---------------------------------------|--|-----------------------------------|-------------------------------|-----------------------|
| Relation          | Modified                              | isInComplexRelation()  | Added                             | 5.1                           | Complex Relation Type |
| Relation          | Modified                              | setStatus()  | Removed                           | 5.1                           | Representation        |
| RelationFactory   | Modified                              | Relation: makeRelation(Term, Term, BinaryFactType, Long, Long)                             | Modified                          | 5.1                           | Representation        |
| RelationFactory   | Modified                              | Relation: makeRelation(Vocabulary, String, Vocabulary, String, BinaryFactType, Long, Long) | Modified                          | 5.1                           | Representation        |
| RelationFactory   | Modified                              | BinaryFactType: makeRelationType (Term, String, String, Term)                              | Modified                          | 5.1                           | Representation        |
| RelationFactory   | Modified                              | BinaryFactType: makeRelationType (Term, String, String, Term , String)                     | Modified                          | 5.1                           | Representation        |

| <b>v4.6 Model</b>  | <b>Unchanged / Removed / Modified</b> | <b>Method</b>          | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|--------------------|---------------------------------------|------------------------|-----------------------------------|-------------------------------|--------------------|
| RelationTrace      | Modified                              | addRelationTraceEntry  | Modified                          | 5.1                           | Representation     |
| RelationTrace      | Modified                              | hasEntries()           | Added                             | 5.1                           | Representation     |
| RelationTraceEntry | Modified                              | getEndingConceptType() | Modified                          | 5.1                           | Representation     |
| AttributeType      | Modified                              | getAllowedValues()     | Added                             | 5.1                           | Representation     |
| AttributeType      | Modified                              | getAttributeKind()     | Added                             | 5.1                           | Representation     |
| AttributeType      | Modified                              | getDescription()       | Added                             | 5.1                           | Representation     |
| AttributeType      | Modified                              | getIsInteger()         | Added                             | 5.1                           | Representation     |
| AttributeType      | Modified                              | getLanguage()          | Added                             | 5.1                           | Representation     |
| AttributeType      | Modified                              | getName()              | Added                             | 5.1                           | Representation     |
| AttributeType      | Modified                              | getStatisticsenabled() | Added                             | 5.1                           | Representation     |

| <b>v4.6 Model</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>            | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|-------------------|---------------------------------------|--------------------------|-----------------------------------|-------------------------------|-----------------------|
| AttributeType     | Modified                              | setAllowedValues()       | Added                             | 5.1                           | Representation        |
| AttributeType     | Modified                              | setAttributeKind()       | Added                             | 5.1                           | Representation        |
| AttributeType     | Modified                              | setDescription()         | Added                             | 5.1                           | Representation        |
| AttributeType     | Modified                              | setIsInteger()           | Added                             | 5.1                           | Representation        |
| AttributeType     | Modified                              | setLanguage()            | Added                             | 5.1                           | Representation        |
| AttributeType     | Modified                              | setName()                | Added                             | 5.1                           | Representation        |
| AttributeType     | Modified                              | setStatisticsEnabled()   | Added                             | 5.1                           | Representation        |
| ComplexRelation   | Modified                              | getAssetsFromLegs()      | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelation   | Modified                              | getComplexRelationType() | Added                             | 5.1                           | Complex Relation Type |

| <b>v4.6 Model</b>   | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                      | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|---------------------|---------------------------------------|------------------------------------|-----------------------------------|-------------------------------|-----------------------|
| ComplexRelation     | Modified                              | getIdentifyingAssets()             | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelation     | Modified                              | getLegs()                          | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelation     | Modified                              | setLegs()                          | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getAssetTypeIdsOfIdentifyingLegs() | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getAttributeTypes()                | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getAttributeTypesAssigned()        | Added                             | 5.1                           | Complex Relation Type |

| <b>v4.6 Model</b>   | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                       | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|---------------------|---------------------------------------|-------------------------------------|-----------------------------------|-------------------------------|-----------------------|
| ComplexRelationType | Modified                              | getIdentifyingLegTypes()            | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getLegTypes()                       | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getMandatoryAttributeTypes()        | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getMandatoryAttributeTypesIds()     | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getMaximumCardinalityForAttribute() | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getMaximumCardinalityForLegType()   | Added                             | 5.1                           | Complex Relation Type |

| <b>v4.6 Model</b>   | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                            | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|---------------------|---------------------------------------|--|-----------------------------------|-------------------------------|-----------------------|
| ComplexRelationType | Modified                              | getNonIdentifyingLegTypes()              | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getOptionalAttributeTypes()              | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getRelationTypeById()                    | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getRelationTypeForLegTypeId()            | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getRelationTypeIdsOfIdentifyingLegs()    | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | getRelationTypeIdsOfNonIdentifyingLegs() | Added                             | 5.1                           | Complex Relation Type |



| <b>v4.6 Model</b>   | <b>Unchanged / Removed / Modified</b> | <b>Method</b>              | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|---------------------|---------------------------------------|----------------------------|-----------------------------------|-------------------------------|-----------------------|
| ComplexRelationType | Modified                              | getRelationTypesFromLegs() | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | hasAttributes()            | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | hasAttributeTypeAssigned() | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationType | Modified                              | hasRelationTypeAssigned()  | Added                             | 5.1                           | Complex Relation Type |
| ConceptType         | Removed                               |                            |                                   | 5.1                           | Representation        |
| Representation      | Modified                              | getGeneralConcept()        | Removed                           | 5.1                           | Representation        |
| Representation      | Modified                              | getDescriptions()          | Removed                           | 5.1                           | Representation        |

| v4.6 Model            | Unchanged / Removed / Modified | Method                  | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|-----------------------|--------------------------------|-------------------------|----------------------------|------------------------|----------------|
| Representation        | Modified                       | Term: getType()         | Modified                   | 5.1                    | Representation |
| Representation        | Modified                       | setAttributes()         | Added                      | 5.1                    | Representation |
| Representation        | Modified                       | setGeneralConcept()     | Removed                    | 5.1                    | Representation |
| Representation        | Modified                       | setType(Term)           | Modified                   | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeAttributeType()     | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeBinaryFactType()    | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeBooleanAttribute()  | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeConceptType()       | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeDateAttribute()     | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeDateTimeAttribute() | Removed                    | 5.1                    | Representation |

| v4.6 Model            | Unchanged / Removed / Modified | Method  | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|-----------------------|--------------------------------|---|----------------------------|------------------------|----------------|
| RepresentationFactory | Modified                       | makeMultiValueListAttribute()                         | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeNumericAttribute()                                | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeScriptAttribute()                                 | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeSingleValueListAttribute()                        | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeStatus()  | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeStringAttribute()                                 | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | Term: makeTerm(String, Vocabulary, String, AssetType) | Modified                   | 5.1                    | Representation |
| RepresentationFactory | Modified                       | Term: makeTerm(Vocabulary, String)                    | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | Term: makeTerm(Vocabulary, String, Term)              | Modified                   | 5.1                    | Representation |

| v4.6 Model            | Unchanged / Removed / Modified | Method  | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by    |
|-----------------------|--------------------------------|---|----------------------------|------------------------|----------------|
| RepresentationFactory | Modified                       | Vocabulary: makeVocabulary(Community, String, String, Term)                     | Modified                   | 5.1                    | Representation |
| RepresentationFactory | Modified                       | Vocabulary: makeVocabulary(Community, String, String, Term, NamingRule, String) | Removed                    | 5.1                    | Representation |
| RepresentationFactory | Modified                       | Vocabulary: makeVocabulary(Community, String, String, Term, String)             | Modified                   | 5.1                    | Representation |
| RepresentationFactory | Modified                       | makeVocabularyType()  | Removed                    | 5.1                    | Representation |
| ResourceIDConstants   | Modified                       |   |                            | 5.1                    |                |
| Snapshot              | Unchanged                      |   |                            |                        |                |
| SnapshotConfiguration | Modified                       | ProductModule: getProductModule()   | Modified                   | 5.0                    | Snapshots      |

| <b>v4.6 Model</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>           | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-------------------|---------------------------------------|-------------------------|-----------------------------------|-------------------------------|--------------------|
| Status            | Modified                              | getSignifier()          | Added                             | 5.0                           | Representation     |
| Status            | Modified                              | setSignifier()          | Added                             | 5.0                           | Representation     |
| Status            | Modified                              | getDescription()        | Added                             | 5.0                           | Representation     |
| Status            | Modified                              | setDescription()        | Added                             | 5.0                           | Representation     |
| Term              | Modified                              | getCategorizationType() | Removed                           | 5.1                           | Categorization     |
| Term              | Modified                              | isCategory()            | Removed                           | 5.1                           | Categorization     |
| Term              | Modified                              | getTags()               | Added                             | 5.1                           | Tags               |
| Term              | Modified                              | setCategorizationType() | Removed                           | 5.1                           | Categorization     |
| ValidationRule    | Unchanged                             |                         |                                   |                               |                    |
| Vocabulary        | Modified                              | addBinaryFactType()     | Removed                           | 5.1                           | Fact Type          |

| <b>v4.6 Model</b>  | <b>Unchanged / Removed / Modified</b> | <b>Method</b>              | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|--------------------|---------------------------------------|----------------------------|-----------------------------------|-------------------------------|--------------------|
| Vocabulary         | Modified                              | getBinaryFactTypes()       | Removed                           | 5.1                           | Fact Type          |
| Vocabulary         | Modified                              | getNamingRule()            | Removed                           | 5.1                           | Naming Rule        |
| Vocabulary         | Modified                              | Term: getType(String)      | Modified                          | 5.1                           | Representation     |
| Vocabulary         | Modified                              | setNamingRule()            | Removed                           | 5.1                           | Naming Rule        |
| VocabularyType     | Removed                               |                            |                                   | 5.1                           | Representation     |
| WorkflowDefinition | Modified                              | getAssetAssignmentRules()  | Added                             | 5.1                           | Assignment         |
| WorkflowDefinition | Modified                              | getDomainAssignmentRules() | Added                             | 5.1                           | Assignment         |
| WorkflowDefinition | Modified                              | isGlobalCreate()           | Added                             | 5.0                           | Global Create      |
| WorkflowDefinition | Modified                              | setGlobalCreate()          | Added                             | 5.0                           | Global Create      |
| BinaryFactType     | Removed                               |                            |                                   | 5.1                           | Representation     |

| v4.6 Model              | Unchanged / Removed / Modified | Method         | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by |
|-------------------------|--------------------------------|----------------|----------------------------|------------------------|-------------|
| SnapshotEntry           | Unchanged                      |                |                            |                        |             |
| RealTimeStatisticEntry  | Unchanged                      |                |                            |                        |             |
| StatisticEntry          | Unchanged                      |                |                            |                        |             |
| Mapping                 | Unchanged                      |                |                            |                        |             |
| Address                 | Unchanged                      |                |                            |                        |             |
| Email                   | Unchanged                      |                |                            |                        |             |
| Group                   | Unchanged                      |                |                            |                        |             |
| InstantMessagingAccount | Unchanged                      |                |                            |                        |             |
| Member                  | Modified                       | getOwnerType() | Added                      | 5.0                    |             |
| Member                  | Modified                       | getPeople()    | Added                      | 5.0                    |             |

| <b>v4.6 Model</b>       | <b>Unchanged / Removed / Modified</b> | <b>Method</b>           | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-------------------------|---------------------------------------|-------------------------|-----------------------------------|-------------------------------|--------------------|
| Member                  | Modified                              | getUserIds()            | Added                             | 5.0                           |                    |
| Member                  | Modified                              | isGlobal()              | Added                             | 5.0                           |                    |
| PhoneNumber             | Unchanged                             |                         |                                   |                               |                    |
| Role                    | Unchanged                             |                         |                                   |                               |                    |
| User                    | Unchanged                             |                         |                                   |                               |                    |
| UserAuthenticationEvent | Modified                              | getDgcVersion()         | Added                             | 5.0                           |                    |
| UserAuthenticationEvent | Modified                              | getLicenseType()        | Added                             | 5.0                           |                    |
| UserAuthenticationEvent | Modified                              | getProductPermissions() | Added                             | 5.0                           |                    |
| UserAuthenticationEvent | Modified                              | getSessionId()          | Added                             | 5.0                           |                    |
| UserAuthenticationEvent | Modified                              | getSessionTimeout()     | Added                             | 5.0                           |                    |



| <b>v4.6 Model</b>       | <b>Unchanged / Removed / Modified</b> | <b>Method</b>         | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-------------------------|---------------------------------------|-----------------------|-----------------------------------|-------------------------------|--------------------|
| UserAuthenticationEvent | Modified                              | getUserAgent()        | Added                             | 5.0                           |                    |
| UserAuthenticationEvent | Modified                              | getUserAgentVersion() | Added                             | 5.0                           |                    |
| UserFactory             | Unchanged                             |                       |                                   |                               |                    |
| Website                 | Unchanged                             |                       |                                   |                               |                    |
| TermValidationResult    | Unchanged                             |                       |                                   |                               |                    |
| View                    | Modified                              | EType                 | Added                             | 5.0                           | Views              |
| View                    | Modified                              | copyFrom()            | Added                             | 5.0                           | Views              |
| View                    | Modified                              | deepCopy()            | Added                             | 5.0                           | Views              |
| View                    | Modified                              | getOriginalView()     | Added                             | 5.0                           | Views              |
| View                    | Modified                              | getType()             | Added                             | 5.0                           | Views              |

| <b>v4.6 Model</b>    | <b>Unchanged / Removed / Modified</b> | <b>Method</b>     | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|----------------------|---------------------------------------|-------------------|-----------------------------------|-------------------------------|--------------------|
| View                 | Modified                              | isFallback()      | Added                             | 5.1                           | Views              |
| View                 | Modified                              | setFallback()     | Added                             | 5.1                           | Views              |
| View                 | Modified                              | setOriginalView() | Added                             | 5.0                           | Views              |
| View                 | Modified                              | setType()         | Added                             | 5.0                           | Views              |
| View                 | Modified                              | setWorkingView()  | Added                             | 5.0                           | Views              |
| ViewRight            | Unchanged                             |                   |                                   |                               |                    |
| ViewRule             | Modified                              | deepCopy()        | Added                             | 5.0                           | Views              |
| WorkflowInstanceInfo | Modified                              | isGlobal()        | Added                             | 5.0                           | Global Create      |
| WorkflowTaskInfo     | Unchanged                             |                   |                                   |                               |                    |
| ModelRevision        | Removed                               |                   |                                   | 5.0                           | History            |

| <b>v4.6 Model</b>    | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|----------------------|---------------------------------------|------------------------------|-----------------------------------|-------------------------------|-----------------------|
| ResourceIdentifier   | Modified                              | isCommunity()                | Added                             | 5.0                           |                       |
| ResourceIdentifier   | Modified                              | isTerm()                     | Added                             | 5.0                           |                       |
| ResourceIdentifier   | Modified                              | isVocabulary()               | Added                             | 5.0                           |                       |
| ResourceIdentifier   | Modified                              | toString()                   | Added                             | 5.0                           |                       |
| RelationTraceFactory | Unchanged                             |                              |                                   |                               |                       |
| ComplexRelationImpl  | Modified                              | ComplexRelationImpl(Builder) | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationImpl  | Modified                              | getAssetsFromLegs()          | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationImpl  | Modified                              | getComplexRelationType()     | Added                             | 5.1                           | Complex Relation Type |

| <b>v4.6 Model</b>   | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b>    |
|---------------------|---------------------------------------|--------------------------------|-----------------------------------|-------------------------------|-----------------------|
| ComplexRelationImpl | Modified                              | getIdentifyingAssets()         | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationImpl | Modified                              | getLegs()                      | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationImpl | Modified                              | getNaturalIdentifier()         | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationImpl | Modified                              | newBuilderForComplexRelation() | Added                             | 5.1                           | Complex Relation Type |
| ComplexRelationImpl | Modified                              | setLegs()                      | Added                             | 5.1                           | Complex Relation Type |
| ResourceIDUtils     | Unchanged                             |                                |                                   |                               |                       |
| ProductModule       | Removed                               |                                |                                   | 5.0                           | License               |

| <b>v4.6 Model</b>           | <b>Unchanged / Removed / Modified</b> | <b>Method</b>         | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------|---------------------------------------|-----------------------|-----------------------------------|-------------------------------|--------------------|
| ResourceType                | Modified                              | getByInterfaceClass() | Added                             | 5.0                           |                    |
| ArticulationRule.EOperation | Unchanged                             |                       |                                   |                               |                    |
| HyperlinkType               | Unchanged                             |                       |                                   |                               |                    |
| Job.EState                  | Unchanged                             |                       |                                   |                               |                    |
| SyncAction                  | Unchanged                             |                       |                                   |                               |                    |
| AddressType                 | Unchanged                             |                       |                                   |                               |                    |
| Gender                      | Unchanged                             |                       |                                   |                               |                    |
| InstantMessagingAccountType | Unchanged                             |                       |                                   |                               |                    |
| PhoneType                   | Unchanged                             |                       |                                   |                               |                    |
| UserAuthenticationAction    | Unchanged                             |                       |                                   |                               |                    |

| v4.6 Model  | Unchanged / Removed / Modified | Method | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by |
|-------------|--------------------------------|--------|----------------------------|------------------------|-------------|
| WebsiteType | Unchanged                      |        |                            |                        |             |

# Java DTO changes

| v4.6 DTO       | Unchanged /<br>Removed /<br>Modified | Method          | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|----------------|--------------------------------------|-----------------|----------------------------------|------------------------------|-------------|
| TimeRange      | Modified                             | isEndSet()      | Added                            | 5.0                          |             |
| TimeRange      | Modified                             | isStartSet()    | Added                            | 5.0                          |             |
| TimeRange      | Modified                             | setEnd()        | Added                            | 5.0                          |             |
| TimeRange      | Modified                             | setStart()      | Added                            | 5.0                          |             |
| Activity       | Removed                              |                 |                                  | 5.0                          | History     |
| ActivityFilter | Modified                             | getMaxResults() | Removed                          | 5.0                          | History     |
| ActivityFilter | Modified                             | setMaxResults() | Removed                          | 5.0                          | History     |
| Change         | Removed                              |                 |                                  | 5.0                          | History     |

| v4.6 DTO              | Unchanged /<br>Removed /<br>Modified | Method                 | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-----------------------|--------------------------------------|------------------------|----------------------------------|------------------------------|----------------|
| ChangeType            | Removed                              |                        |                                  | 5.0                          | History        |
| RelationChange        | Removed                              |                        |                                  | 5.0                          | History        |
| BackupRestoreFilter   | Removed                              |                        |                                  | 5.0                          | Infrastructure |
| ParentResourceElement | Unchanged                            |                        |                                  |                              |                |
| CompareResult         | Unchanged                            |                        |                                  |                              |                |
| Difference            | Unchanged                            |                        |                                  |                              |                |
| DifferenceType        | Unchanged                            |                        |                                  |                              |                |
| PropertyDifference    | Unchanged                            |                        |                                  |                              |                |
| ResourceDifference    | Unchanged                            |                        |                                  |                              |                |
| ResultDiagram         | Modified                             | moved to model package |                                  | 5.1                          | Diagrams       |



| v4.6 DTO            | Unchanged /<br>Removed /<br>Modified | Method                 | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|---------------------|--------------------------------------|------------------------|----------------------------------|------------------------------|-------------|
| ResultEdge          | Modified                             | moved to model package |                                  | 5.1                          | Diagrams    |
| ResultNode          | Modified                             | moved to model package |                                  | 5.1                          | Diagrams    |
| VisitDirection      | Modified                             | moved to model package |                                  | 5.1                          | Diagrams    |
| VisitedTemplateEdge | Modified                             | moved to model package |                                  | 5.1                          | Diagrams    |
| TemplateDiagram     | Modified                             | moved to model package |                                  | 5.1                          | Diagrams    |
| TemplateEdge        | Modified                             | moved to model package |                                  | 5.1                          | Diagrams    |
| TemplateNode        | Modified                             | moved to model package |                                  | 5.1                          | Diagrams    |
| PagedFilter         | Unchanged                            |                        |                                  |                              |             |
| PropertyFilter      | Unchanged                            |                        |                                  |                              |             |
| MatchMode           | Unchanged                            |                        |                                  |                              |             |

| v4.6 DTO                 | Unchanged /<br>Removed /<br>Modified | Method | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|--------------------------|--------------------------------------|--------|----------------------------------|------------------------------|-------------|
| AssetImpact              | Unchanged                            |        |                                  |                              |             |
| AssetImpactBuilder       | Unchanged                            |        |                                  |                              |             |
| GroupImpact              | Unchanged                            |        |                                  |                              |             |
| ImpactRelationType       | Unchanged                            |        |                                  |                              |             |
| PeopleImpact             | Unchanged                            |        |                                  |                              |             |
| RelationTrace            | Unchanged                            |        |                                  |                              |             |
| UserImpact               | Unchanged                            |        |                                  |                              |             |
| ResourceChange           | Unchanged                            |        |                                  |                              |             |
| ResourcePropertyChange   | Unchanged                            |        |                                  |                              |             |
| CSVInputConnectorFactory | Unchanged                            |        |                                  |                              |             |

| v4.6 DTO                                 | Unchanged /<br>Removed /<br>Modified | Method | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|--|--------------------------------------|--------|----------------------------------|------------------------------|-------------|
| CSVOutputConnectorFactory                | Unchanged                            |        |                                  |                              |             |
| ExcellInputConnctorFactory               | Unchanged                            |        |                                  |                              |             |
| ExcelOutputConnectorFactory              | Unchanged                            |        |                                  |                              |             |
| GraphvizOutputConnectorFactory           | Unchanged                            |        |                                  |                              |             |
| JSONDataTableOutputConnectorFactory      | Unchanged                            |        |                                  |                              |             |
| JSONOutputConnectorFactory               | Unchanged                            |        |                                  |                              |             |
| SqlOutputConnectorFactory                | Unchanged                            |        |                                  |                              |             |
| XMLOutputConnectorFactory                | Unchanged                            |        |                                  |                              |             |
| XssfRowContainer                         | Unchanged                            |        |                                  |                              |             |
| XssfStreamingExcellInputConnectorFactory | Unchanged                            |        |                                  |                              |             |

| v4.6 DTO          | Unchanged /<br>Removed /<br>Modified | Method             | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|-------------------|--------------------------------------|--------------------|----------------------------------|------------------------------|-------------|
| IssueFilter       | Unchanged                            |                    |                                  |                              |             |
| JobFilter         | Modified                             | getMaxVisibility() | Added                            | 5.0                          |             |
| JobFilter         | Modified                             | setMaxVisibility() | Added                            | 5.0                          |             |
| LdapGroup         | Unchanged                            |                    |                                  |                              |             |
| LdapMappingConfig | Unchanged                            |                    |                                  |                              |             |
| LdapUser          | Unchanged                            |                    |                                  |                              |             |
| JobMailItem       | Unchanged                            |                    |                                  |                              |             |
| MemberFilter      | Modified                             | getOwnerIds()      | Added                            | 5.0                          |             |
| MemberFilter      | Modified                             | getResourceId()    | Removed                          | 5.0                          |             |
| MemberFilter      | Modified                             | getResourceIds()   | Added                            | 5.0                          |             |

| v4.6 DTO     | Unchanged /<br>Removed /<br>Modified | Method                | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|--------------|--------------------------------------|-----------------------|----------------------------------|------------------------------|-------------|
| MemberFilter | Modified                             | getRoleId()           | Removed                          | 5.0                          |             |
| MemberFilter | Modified                             | getRoleIds()          | Added                            | 5.0                          |             |
| MemberFilter | Modified                             | getUser()             | Removed                          | 5.0                          |             |
| MemberFilter | Modified                             | getSortField()        | Added                            | 5.0                          |             |
| MemberFilter | Modified                             | isGlobalOnly()        | Added                            | 5.0                          |             |
| MemberFilter | Modified                             | isIncludeInherited()  | Added                            | 5.0                          |             |
| MemberFilter | Modified                             | isResourceRole()      | Removed                          | 5.0                          |             |
| MemberFilter | Modified                             | isSortAscending()     | Added                            | 5.0                          |             |
| MemberFilter | Modified                             | setGlobalOnly()       | Added                            | 5.0                          |             |
| MemberFilter | Modified                             | setIncludeInherited() | Added                            | 5.0                          |             |

| v4.6 DTO       | Unchanged /<br>Removed /<br>Modified | Method             | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|----------------|--------------------------------------|--------------------|----------------------------------|------------------------------|-------------|
| MemberFilter   | Modified                             | setResourceRole()  | Removed                          | 5.0                          |             |
| MemberFilter   | Modified                             | setResourceRoles() | Added                            | 5.0                          |             |
| MemberFilter   | Modified                             | setRoleId()        | Removed                          | 5.0                          |             |
| MemberFilter   | Modified                             | setRoleIds()       | Added                            | 5.0                          |             |
| MemberFilter   | Modified                             | setSortAscending() | Added                            | 5.0                          |             |
| MemberFilter   | Modified                             | setSortField()     | Added                            | 5.0                          |             |
| MemberFilter   | Modified                             | setUser()          | Removed                          | 5.0                          |             |
| Noun           | Unchanged                            |                    |                                  |                              |             |
| RelationFilter | Modified                             | forAllWithSource() | Added                            | 5.1                          |             |
| RelationFilter | Modified                             | forAllWithTarget() | Added                            | 5.1                          |             |

| v4.6 DTO              | Unchanged /<br>Removed /<br>Modified | Method                     | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|-----------------------|--------------------------------------|----------------------------|----------------------------------|------------------------------|-------------|
| RelationFilter        | Modified                             | getFormula()               | Added                            | 5.0                          |             |
| RelationFilter        | Modified                             | newBuilder()               | Added                            | 5.1                          |             |
| RelationFilter        | Modified                             | setFormula()               | Added                            | 5.0                          |             |
| ComplexRelationFilter | Modified                             | isConsiderViewPermissions  | Added                            | 5.1                          |             |
| ComplexRelationFilter | Modified                             | setConsiderViewPermissions | Added                            | 5.1                          |             |
| PagedResult           | Unchanged                            |                            |                                  |                              |             |
| FoundAttribute        | Unchanged                            |                            |                                  |                              |             |
| FoundAttributeBuilder | Unchanged                            |                            |                                  |                              |             |
| FoundComment          | Unchanged                            |                            |                                  |                              |             |
| FoundCommentBuiler    | Unchanged                            |                            |                                  |                              |             |

| v4.6 DTO                  | Unchanged /<br>Removed /<br>Modified | Method | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|---------------------------|--------------------------------------|--------|----------------------------------|------------------------------|-------------|
| FoundElement              | Unchanged                            |        |                                  |                              |             |
| FoundElementBuilder       | Unchanged                            |        |                                  |                              |             |
| FoundPart                 | Unchanged                            |        |                                  |                              |             |
| FoundPartBuilder          | Unchanged                            |        |                                  |                              |             |
| FoundPartWithUrl          | Unchanged                            |        |                                  |                              |             |
| SearchContext             | Unchanged                            |        |                                  |                              |             |
| SearchFilter              | Unchanged                            |        |                                  |                              |             |
| SearchFilterOnType        | Unchanged                            |        |                                  |                              |             |
| SearchFilterOnTypeBuilder | Unchanged                            |        |                                  |                              |             |
| SearchOrder               | Unchanged                            |        |                                  |                              |             |



| v4.6 DTO                             | Unchanged /<br>Removed /<br>Modified | Method | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|--------------------------------------|--------------------------------------|--------|----------------------------------|------------------------------|-------------|
| SearchParameters                     | Unchanged                            |        |                                  |                              |             |
| SearchParametersBuilder              | Unchanged                            |        |                                  |                              |             |
| SearchResult                         | Unchanged                            |        |                                  |                              |             |
| SearchResultItem                     | Removed                              |        |                                  | 5.0                          |             |
| SearchResultItemBuilder              | Removed                              |        |                                  | 5.0                          |             |
| FoundSimpleElement                   | Unchanged                            |        |                                  |                              |             |
| SearchForHyperlinksParameters        | Unchanged                            |        |                                  |                              |             |
| SearchForHyperlinksParametersBuilder | Unchanged                            |        |                                  |                              |             |
| SearchForHyperlinksResult            | Unchanged                            |        |                                  |                              |             |
| PropertyOrder                        | Unchanged                            |        |                                  |                              |             |

| v4.6 DTO                 | Unchanged /<br>Removed /<br>Modified | Method | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|--------------------------|--------------------------------------|--------|----------------------------------|------------------------------|-------------|
| CountOperation           | Unchanged                            |        |                                  |                              |             |
| MetricFilter             | Unchanged                            |        |                                  |                              |             |
| RealtimeCountConfig      | Unchanged                            |        |                                  |                              |             |
| RealtimeCountDimension   | Unchanged                            |        |                                  |                              |             |
| RealtimeCountFieldFilter | Unchanged                            |        |                                  |                              |             |
| RealtimeCountFilter      | Unchanged                            |        |                                  |                              |             |
| RealtimeCountOrderBy     | Unchanged                            |        |                                  |                              |             |
| RealtimeCountResource    | Unchanged                            |        |                                  |                              |             |
| RealtimeCountResult      | Unchanged                            |        |                                  |                              |             |
| StatisticDimension       | Unchanged                            |        |                                  |                              |             |

| v4.6 DTO                 | Unchanged /<br>Removed /<br>Modified | Method | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|--------------------------|--------------------------------------|--------|----------------------------------|------------------------------|-------------|
| StatisticFilter          | Unchanged                            |        |                                  |                              |             |
| RepresentationStatsEntry | Unchanged                            |        |                                  |                              |             |
| MappingInfo              | Unchanged                            |        |                                  |                              |             |
| UserFilter               | Unchanged                            |        |                                  |                              |             |
| UserInfo                 | Unchanged                            |        |                                  |                              |             |
| UserInfoBuilder          | Unchanged                            |        |                                  |                              |             |
| Users                    | Unchanged                            |        |                                  |                              |             |
| AbstractModel            | Unchanged                            |        |                                  |                              |             |
| AssetModel               | Unchanged                            |        |                                  |                              |             |
| BasicAssetModel          | Unchanged                            |        |                                  |                              |             |

| v4.6 DTO                   | Unchanged /<br>Removed /<br>Modified | Method           | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|----------------------------|--------------------------------------|------------------|----------------------------------|------------------------------|-------------|
| CommunityModel             | Unchanged                            |                  |                                  |                              |             |
| TermValidationInfo         | Unchanged                            |                  |                                  |                              |             |
| TermValidationResultFilter | Unchanged                            |                  |                                  |                              |             |
| VocabularyModel            | Unchanged                            |                  |                                  |                              |             |
| ViewFilter                 | Modified                             | getDefaultView() | Added                            | 5.0                          | Views       |
| ViewFilter                 | Modified                             | getLimit()       | Added                            | 5.0                          | Views       |
| ViewFilter                 | Modified                             | getOffset()      | Added                            | 5.0                          | Views       |
| ViewFilter                 | Modified                             | getSortField()   | Added                            | 5.0                          | Views       |
| ViewFilter                 | Modified                             | getSortOrder()   | Added                            | 5.0                          | Views       |
| ViewFilter                 | Modified                             | getType()        | Added                            | 5.0                          | Views       |

| v4.6 DTO        | Unchanged /<br>Removed /<br>Modified | Method           | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|-----------------|--------------------------------------|------------------|----------------------------------|------------------------------|-------------|
| ViewFilter      | Modified                             | setDefaultView() | Added                            | 5.0                          | Views       |
| ViewFilter      | Modified                             | setLimit()       | Added                            | 5.0                          | Views       |
| ViewFilter      | Modified                             | setOffset()      | Added                            | 5.0                          | Views       |
| ViewFilter      | Modified                             | setSortField()   | Added                            | 5.0                          | Views       |
| ViewFilter      | Modified                             | setSortOrder()   | Added                            | 5.0                          | Views       |
| ViewFilter      | Modified                             | setType()        | Added                            | 5.0                          | Views       |
| ViewRightFilter | Unchanged                            |                  |                                  |                              |             |
| DropDownValue   | Unchanged                            |                  |                                  |                              |             |
| FormData        | Unchanged                            |                  |                                  |                              |             |
| FormProperty    | Unchanged                            |                  |                                  |                              |             |

| v4.6 DTO              | Unchanged /<br>Removed /<br>Modified | Method | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|-----------------------|--------------------------------------|--------|----------------------------------|------------------------------|-------------|
| ProcessInstance       | Unchanged                            |        |                                  |                              |             |
| ProcessInstanceFilter | Unchanged                            |        |                                  |                              |             |
| StartFormData         | Unchanged                            |        |                                  |                              |             |
| Task                  | Unchanged                            |        |                                  |                              |             |
| TaskFilter            | Unchanged                            |        |                                  |                              |             |
| TaskFormData          | Unchanged                            |        |                                  |                              |             |
| WorkflowEventType     | Unchanged                            |        |                                  |                              |             |
| WorkflowExclusivity   | Unchanged                            |        |                                  |                              |             |
| WorkflowStart         | Unchanged                            |        |                                  |                              |             |

## Rest API changes

| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|------------------------|--------------------------------------|--|----------------------------------|------------------------------|-------------|
| ActivityStreamResource | Removed                              |  |                                  | 5.0                          | History     |
| ApplicationResource    | Unchanged                            |  |                                  |                              |             |
| ArticulationResource   | Modified                             | DELETE, GET, POST /1.0/articulation_calculator                   | Removed                          | 5.1                          | Assignment  |
| ArticulationResource   | Modified                             | GET /1.0/articulation_calculator/all                             | Removed                          | 5.1                          | Assignment  |
| ArticulationResource   | Modified                             | DELETE, GET, POST /1.0/articulation_calculator/{calculator}      | Removed                          | 5.1                          | Assignment  |
| ArticulationResource   | Modified                             | POST /1.0/articulation_calculator/{calculator}/articulation_rule | Removed                          | 5.1                          | Assignment  |

| v4.6 Rest API           | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|-------------------------|--------------------------------------|---|----------------------------------|------------------------------|-------------|
| ArticulationResource    | Modified                             | POST /1.0/articulation_calculator/<br>{calculator}/articulation_rules                   | Removed                          | 5.1                          | Assignment  |
| ArticulationResource    | Modified                             | POST /1.0/articulation_calculator/<br>{calculator}/assignment_rule                      | Removed                          | 5.1                          | Assignment  |
| ArticulationResource    | Modified                             | POST /1.0/articulation_calculator/<br>{calculator}/assignment_rules                     | Removed                          | 5.1                          | Assignment  |
| ArticulationResource    | Modified                             | DELETE, POST /1.0/articulation_<br>calculator/{calculator}/articulation_<br>rule/{rule} | Removed                          | 5.1                          | Assignment  |
| ArticulationResource    | Modified                             | DELETE, POST /1.0/articulation_<br>calculator/{calculator}/assignment_<br>rule/{rule}   | Removed                          | 5.1                          | Assignment  |
| AssignmentGroupResource | Removed                              |   |                                  | 5.1                          | Assignment  |



| v4.6 Rest API              | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|----------------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| AttachmentResource         | Unchanged                            |  |                                  |                              |                |
| AttributeResource          | Unchanged                            |  |                                  |                              |                |
| AttributeTypeGroupResource | Removed                              |  |                                  | 5.1                          | Assignment     |
| AttributeTypeResource      | Modified                             | POST /1.0/attribute_type/-<br>workflows                    | Removed                          | 5.1                          | Representation |
| AttributeTypeResource      | Modified                             | DELETE, GET, POST /1.0/at-<br>tribute_type/{attributeType} | Removed                          | 5.1                          | Representation |
| AttributeTypeResource      | Modified                             | POST /1.0/attribute_type/concept_<br>type/async            | Removed                          | 5.1                          | Representation |
| AttributeTypeResource      | Modified                             | POST /1.0/attribute_type/general_<br>concept/async         | Removed                          | 5.1                          | Representation |

| v4.6 Rest API         | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-----------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| AttributeTypeResource | Modified                             | DELETE /1.0/attribute_type/re-<br>move/async            | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | DELETE /1.0/attribute_type/re-<br>move/job              | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | POST /1.0/attribute_type/status/a-<br>sync              | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | POST /1.0/attribute_type/-<br>vocabulary/async          | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | POST /1.0/attribute_type/{baseRe-<br>source}/attachment | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{baseRe-<br>source}/attachments | Removed                          | 5.1                          | Representation |

| v4.6 Rest API         | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-----------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{baseResource}/comments                             | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/all_specialized_concepts           | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET, POST /1.0/attribute_type/{representation}/attributes                   | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | POST /1.0/attribute_type/{representation}/change_excluded_from_hyperlinking | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET, POST /1.0/attribute_type/{representation}/concept_type                 | Removed                          | 5.1                          | Representation |

| v4.6 Rest API         | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-----------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| AttributeTypeResource | Modified                             | DELETE, POST /1.0/attribute_type/{representation}/general_concept | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/general_concepts         | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/group_attributes         | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/groups                   | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/has_general_concept      | Removed                          | 5.1                          | Representation |

| v4.6 Rest API         | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-----------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/possible_attribute_relation_types | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/possible_attribute_types          | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/possible_statuses                 | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET, POST /1.0/attribute_type/{representation}/status                      | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/vocabulary                        | Removed                          | 5.1                          | Representation |

| v4.6 Rest API         | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-----------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{representation}/workflows    | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | POST /1.0/attribute_type/{resource}/comment           | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{term}/binary_fact_type_forms | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{term}/derived_facts          | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{term}/general_concept        | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{term}/possible_object_types  | Removed                          | 5.1                          | Representation |

| v4.6 Rest API         | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-----------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| AttributeTypeResource | Modified                             | POST /1.0/attribute_type/{term}/relations                  | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{term}/source_relations            | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{term}/specialized_concepts        | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{term}/target_relations            | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | POST /1.0/attribute_type/{baseResource}/attachment/url     | Removed                          | 5.1                          | Representation |
| AttributeTypeResource | Modified                             | GET /1.0/attribute_type/{term}/binary_fact_type_forms/full | Removed                          | 5.1                          | Representation |

| v4.6 Rest API               | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by           |
|-----------------------------|--------------------------------------|--|----------------------------------|------------------------------|-----------------------|
| AttributeTypeResource       | Modified                             | GET /1.0/attribute_type/{term}/derived_facts/full                              | Removed                          | 5.1                          | Representation        |
| BackupResource              | Removed                              |  |                                  | 5.0                          | Infrastructure        |
| BinaryFactTypeResource      | Removed                              |  |                                  | 5.1                          | Representation        |
| ClassificationResource      | Removed                              |  |                                  | 5.1                          | Categorization        |
| CommentResource             | Unchanged                            |  |                                  |                              |                       |
| CommunityResource           | Unchanged                            |  |                                  |                              |                       |
| ComplexRelationResource     | Unchanged                            |  |                                  |                              |                       |
| ComplexRelationTypeResource | Modified                             | POST /1.0/complex_relation_type/{complexRelationType}/attribute_type_container | Removed                          | 5.1                          | Complex Relation Type |



| v4.6 Rest API               | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by           |
|-----------------------------|--------------------------------------|--|----------------------------------|------------------------------|-----------------------|
| ComplexRelationTypeResource | Modified                             | GET, POST /1.0/complex_relation_type/{complexRelationType}/attribute_type_containers | Removed                          | 5.1                          | Complex Relation Type |
| ComplexRelationTypeResource | Modified                             | DELETE /1.0/complex_relation_type/{complexRelationType}/container                    | Removed                          | 5.1                          | Complex Relation Type |
| ComplexRelationTypeResource | Modified                             | POST /1.0/complex_relation_type/{complexRelationType}/relation_type_container        | Removed                          | 5.1                          | Complex Relation Type |
| ComplexRelationTypeResource | Modified                             | GET, POST /1.0/complex_relation_type/{complexRelationType}/relation_type_containers  | Removed                          | 5.1                          | Complex Relation Type |

| v4.6 Rest API            | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|--------------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| ConceptTypeGroupResource | Removed                              |  |                                  | 5.1                          | Assignment     |
| ConceptTypeResource      | Modified                             | GET /1.0/concept_type/vocabulary                       | Removed                          | 5.1                          | Representation |
| ConceptTypeResource      | Modified                             | POST /1.0/concept_type/workflows                       | Removed                          | 5.1                          | Representation |
| ConceptTypeResource      | Modified                             | GET /1.0/concept_type/<br>{assetType}/general_concepts | Added                            | 5.1                          | Representation |
| ConceptTypeResource      | Modified                             | DELETE /1.0/concept_type/{rep-<br>resentation}         | Removed                          | 5.1                          | Representation |
| ConceptTypeResource      | Modified                             | POST /1.0/concept_type/concept_<br>type/async          | Removed                          | 5.1                          | Representation |
| ConceptTypeResource      | Modified                             | POST /1.0/concept_type/general_<br>concept/async       | Removed                          | 5.1                          | Representation |

| v4.6 Rest API       | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|---------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| ConceptTypeResource | Modified                             | DELETE /1.0/concept_type/re-<br>move/async            | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | DELETE /1.0/concept_type/re-<br>move/job              | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | POST /1.0/concept_type/status/a-<br>sync              | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | POST /1.0/concept_type/-<br>vocabulary/async          | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | POST /1.0/concept_type/{baseRe-<br>source}/attachment | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{baseRe-<br>source}/attachments | Removed                          | 5.1                          | Representation |

| v4.6 Rest API       | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|---------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{baseResource}/comments                             | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{representation}/all_specialized_concepts           | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET, POST /1.0/concept_type/{representation}/attributes                   | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | POST /1.0/concept_type/{representation}/change_excluded_from_hyperlinking | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | POST /1.0/concept_type/{representation}/concept_type                      | Removed                          | 5.1                          | Representation |

| v4.6 Rest API       | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|---------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| ConceptTypeResource | Modified                             | DELETE, POST /1.0/concept_type/<br>{representation}/general_concept               | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{rep-<br>resentation}/general_concepts                      | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{rep-<br>resentation}/group_attributes                      | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{rep-<br>resentation}/groups                                | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{rep-<br>resentation}/has_general_concept                   | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{rep-<br>resentation}/possible_attribute_<br>relation_types | Removed                          | 5.1                          | Representation |

| v4.6 Rest API       | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|---------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{representation}/possible_attribute_types | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{representation}/possible_statuses        | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | POST, GET /1.0/concept_type/{representation}/status             | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{representation}/vocabulary               | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{representation}/workflows                | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | POST /1.0/concept_type/{resource}/comment                       | Removed                          | 5.1                          | Representation |

| v4.6 Rest API       | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|---------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{term}/binary_fact_type_forms | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{term}/derived_facts          | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{term}/general_concept        | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{term}/possible_object_types  | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | POST /1.0/concept_type/{term}/relations             | Removed                          | 5.1                          | Representation |
| ConceptTypeResource | Modified                             | GET /1.0/concept_type/{term}/source_relations       | Removed                          | 5.1                          | Representation |

| v4.6 Rest API         | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-----------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| ConceptTypeResource   | Modified                             | GET /1.0/concept_type/{term}/specialized_concepts        | Removed                          | 5.1                          | Representation |
| ConceptTypeResource   | Modified                             | GET /1.0/concept_type/{term}/target_relations            | Removed                          | 5.1                          | Representation |
| ConceptTypeResource   | Modified                             | POST /1.0/concept_type/{baseResource}/attachment/url     | Removed                          | 5.1                          | Representation |
| ConceptTypeResource   | Modified                             | GET /1.0/concept_type/{term}/binary_fact_type_forms/full | Removed                          | 5.1                          | Representation |
| ConceptTypeResource   | Modified                             | GET /1.0/concept_type/{term}/derived_facts/full          | Removed                          | 5.1                          | Representation |
| ConfigurationResource | Removed                              |  |                                  | 5.0                          | Configuration  |
| DatabaseResource      | Removed                              |  |                                  | 5.0                          | Infrastructure |



| v4.6 Rest API        | Unchanged /<br>Removed /<br>Modified | Method                                | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|----------------------|--------------------------------------|---------------------------------------|----------------------------------|------------------------------|----------------|
| FileTransferResource | Unchanged                            |                                       |                                  |                              |                |
| GroupResource        | Unchanged                            |                                       |                                  |                              |                |
| HyperlinkResource    | Unchanged                            |                                       |                                  |                              |                |
| I18NResource         | Unchanged                            |                                       |                                  |                              |                |
| ImpactResource       | Unchanged                            |                                       |                                  |                              |                |
| InitializeResource   | Modified                             | POST /1.0/initialize/bootstrap        | Removed                          | 5.0                          | Infrastructure |
| InitializeResource   | Modified                             | POST /1.0/initialize/init             | Removed                          | 5.0                          | Infrastructure |
| InitializeResource   | Modified                             | POST /1.0/initialize/bootstrap/create | Removed                          | 5.0                          | Infrastructure |
| InputViewResource    | Unchanged                            |                                       |                                  |                              |                |

| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by |
|------------------------|--------------------------------------|--------|----------------------------------|------------------------------|-------------|
| IssueResource          | Unchanged                            |        |                                  |                              |             |
| JobResource            | Unchanged                            |        |                                  |                              |             |
| LdapResource           | Unchanged                            |        |                                  |                              |             |
| LicenseResource        | Removed                              |        |                                  | 5.1                          | License     |
| LogResource            | Unchanged                            |        |                                  |                              |             |
| MappingResource        | Unchanged                            |        |                                  |                              |             |
| MemberResource         | Unchanged                            |        |                                  |                              |             |
| MetricGroupResource    | Removed                              |        |                                  | 5.1                          | Assignment  |
| NounExtractorResource  | Unchanged                            |        |                                  |                              |             |
| OfficeResearchResource | Unchanged                            |        |                                  |                              |             |

| v4.6 Rest API                 | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-------------------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| OutputViewResource            | Unchanged                            |  |                                  |                              |                |
| RelationResource              | Modified                             | POST /1.0/relation/{relation}/status           | Removed                          | 5.1                          | Representation |
| RelationResource              | Modified                             | GET /1.0/relation/{relation}/possible_statuses | Removed                          | 5.1                          | Representation |
| RelationTypeResource          | Unchanged                            |  |                                  |                              |                |
| RoleResource                  | Unchanged                            |  |                                  |                              |                |
| RootResource                  | Removed                              |  |                                  | 5.0                          |                |
| SamlMetadataResource          | Modified                             | POST /1.0/saml/metadata                        | Removed                          | 5.0                          |                |
| SearchResource                | Modified                             | GET /1.0/search                                | Removed                          | 5.0                          |                |
| SnapshotConfigurationResource | Removed                              |  |                                  | 5.1                          | Snapshots      |

| v4.6 Rest API       | Unchanged /<br>Removed /<br>Modified | Method                                      | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|---------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| SnapshotResource    | Removed                              |   |                                  | 5.1                          | Snapshots      |
| StatisticResource   | Unchanged                            |   |                                  |                              |                |
| StatusGroupResource | Removed                              |   |                                  |                              |                |
| StatusResource      | Modified                             | GET /1.0/status/signifier                   | Added                            | 5.0                          | Representation |
| StatusResource      | Modified                             | GET /1.0/status/vocabulary                  | Removed                          | 5.1                          | Representation |
| StatusResource      | Modified                             | POST /1.0/status/workflows                  | Removed                          | 5.1                          | Representation |
| StatusResource      | Modified                             | POST /1.0/status/concept_type/a-<br>sync    | Removed                          | 5.1                          | Representation |
| StatusResource      | Modified                             | POST /1.0/status/general_con-<br>cept/async | Removed                          | 5.1                          | Representation |
| StatusResource      | Modified                             | DELETE /1.0/status/remove/async             | Removed                          | 5.1                          | Representation |

| v4.6 Rest API  | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|----------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| StatusResource | Modified                             | DELETE /1.0/status/remove/job                   | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | POST /1.0/status/status/async                   | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | POST /1.0/status/-<br>vocabulary/async          | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | POST /1.0/status/{baseRe-<br>source}/attachment | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{baseRe-<br>source}/attachments | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{baseRe-<br>source}/comments    | Removed                          | 5.1                          | Representation |

| v4.6 Rest API  | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|----------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| StatusResource | Modified                             | GET /1.0/status/{representation}/all_specialized_concepts           | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET, POST /1.0/status/{representation}/attributes                   | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | POST /1.0/status/{representation}/change_excluded_from_hyperlinking | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET, POST /1.0/status/{representation}/concept_type                 | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | DELETE, POST /1.0/status/{representation}/general_concept           | Removed                          | 5.1                          | Representation |

| v4.6 Rest API  | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|----------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| StatusResource | Modified                             | GET /1.0/status/{representation}/general_concepts                  | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{representation}/group_attributes                  | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{representation}/groups                            | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{representation}/has_general_concept               | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{representation}/possible_attribute_relation_types | Removed                          | 5.1                          | Representation |

| v4.6 Rest API  | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|----------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| StatusResource | Modified                             | GET /1.0/status/{representation}/possible_attribute_types | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{representation}/possible_statuses        | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | POST /1.0/status/{representation}/status                  | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{representation}/vocabulary               | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{representation}/workflows                | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | POST /1.0/status/{resource}/comment                       | Removed                          | 5.1                          | Representation |



| v4.6 Rest API  | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|----------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| StatusResource | Modified                             | GET /1.0/status/{term}/binary_<br>fact_type_forms | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{term}/derived_<br>facts          | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{term}/general_<br>concept        | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{term}/possible_<br>object_types  | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | POST /1.0/status/{term}/relations                 | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | POST /1.0/status/{term}/signifier                 | Removed                          | 5.1                          | Representation |
| StatusResource | Modified                             | GET /1.0/status/{term}/source_rela-<br>tions      | Removed                          | 5.1                          | Representation |

| v4.6 Rest API        | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|----------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| StatusResource       | Modified                             | GET /1.0/status/{term}/specialized_concepts        | Removed                          | 5.1                          | Representation |
| StatusResource       | Modified                             | GET /1.0/status/{term}/target_relations            | Removed                          | 5.1                          | Representation |
| StatusResource       | Modified                             | POST /1.0/status/{baseResource}/attachment/url     | Removed                          | 5.1                          | Representation |
| StatusResource       | Modified                             | GET /1.0/status/{term}/binary_fact_type_forms/full | Removed                          | 5.1                          | Representation |
| StatusResource       | Modified                             | GET /1.0/status/{term}/derived_facts/full          | Removed                          | 5.1                          | Representation |
| SyncIBMResource      | Removed                              |  |                                  | 5.0                          | Integrations   |
| SyncTrilliumResource | Removed                              |  |                                  | 5.0                          | Integrations   |

| v4.6 Rest API | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|---------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| TermResource  | Modified                             | POST /1.0/term/categorization_<br>type                       | Removed                          | 5.1                          | Categorization |
| TermResource  | Modified                             | POST /1.0/term/category                                      | Removed                          | 5.1                          | Categorization |
| TermResource  | Modified                             | GET /1.0/{gen-<br>eralConcept}/category                      | Removed                          | 5.1                          | Categorization |
| TermResource  | Modified                             | GET /1.0/{gen-<br>eralConcept}/category/full                 | Removed                          | 5.1                          | Categorization |
| TermResource  | Modified                             | GET /1.0/{gen-<br>eralConcept}/categorization_type           | Removed                          | 5.1                          | Categorization |
| TermResource  | Modified                             | GET /1.0/{gen-<br>eralConcept}/categorization_type/-<br>full | Removed                          | 5.1                          | Categorization |

| v4.6 Rest API             | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|---------------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| TermResource              | Modified                             | GET /1.0/{term}/is_categorization_type                                | Removed                          | 5.1                          | Categorization |
| TermResource              | Modified                             | POST /1.0/{category}/categorization_type                              | Removed                          | 5.1                          | Categorization |
| TermResource              | Modified                             | POST /1.0/categorization_type   | Removed                          | 5.1                          | Categorization |
| TermResource              | Modified                             | DELETE /1.0/category/{category}                                       | Removed                          | 5.1                          | Categorization |
| TermResource              | Modified                             | DELETE /1.0/{generalconcept}/categorization_type/{categorizationtype} | Removed                          | 5.1                          | Categorization |
| TraceabilityGroupResource | Removed                              |   |                                  | 5.0                          | Assignment     |
| UserResource              | Unchanged                            |   |                                  |                              |                |

| v4.6 Rest API           | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|-------------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| ValidationGroupResource | Removed                              |  |                                  | 5.1                          | Assignment     |
| ValidationResource      | Unchanged                            |  |                                  |                              |                |
| ViewResource            | Unchanged                            |  |                                  |                              |                |
| ViewRightResource       | Unchanged                            |  |                                  |                              |                |
| VocabularyResource      | Modified                             | GET /1.0/{vocabulary}/groups                     | Removed                          | 5.0                          | Assignment     |
| VocabularyResource      | Modified                             | GET /1.0/{vocabulary}/possible_ relation_ types  | Modified                         | 5.1                          | Representation |
| VocabularyResource      | Modified                             | GET /1.0/{vocabulary}/relation_ types            | Removed                          | 5.1                          | Representation |
| VocabularyResource      | Modified                             | GET /1.0/{vocabulary}/possible_ attribute_ types | Modified                         | 5.1                          | Representation |

| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| VocabularyResource     | Modified                             | GET /1.0/{vocabulary}/possible_<br>fact_types    | Removed                          | 5.1                          | Representation |
| VocabularyResource     | Modified                             | GET /1.0/{vocabulary}/binary_fact_<br>types      | Removed                          | 5.1                          | Representation |
| VocabularyResource     | Modified                             | GET /1.0/{vocabulary}/binary_fact_<br>types/full | Removed                          | 5.1                          | Representation |
| VocabularyResource     | Modified                             | POST /1.0/{vocabulary}/naming_<br>rule           | Removed                          | 5.0                          | Naming Rule    |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/-<br>vocabulary         | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/-<br>workflows         | Removed                          | 5.1                          | Representation |

| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| VocabularyTypeResource | Modified                             | DELETE /1.0/vocabulary_type/{representation}     | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/-concept_type/async    | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/-general_concept/async | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | DELETE /1.0/vocabulary_type/remove/async         | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | DELETE /1.0/vocabulary_type/remove/job           | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/status/async           | Removed                          | 5.1                          | Representation |

| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/-<br>vocabulary/async                              | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/<br>{baseResource}/attachment                      | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/<br>{baseResource}/attachments                      | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/<br>{baseResource}/comments                         | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{rep-<br>resentation}/all_specialized_con-<br>cepts | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET, POST /1.0/vocabulary_type/<br>{representation}/attributes               | Removed                          | 5.1                          | Representation |



| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/{representation}/change_excluded_from_hyperlinking | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET, POST /1.0/vocabulary_type/{representation}/concept_type                 | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | DELETE, POST /1.0/vocabulary_type/{representation}/general_concept           | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{representation}/general_concepts                   | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{representation}/group_attributes                   | Removed                          | 5.1                          | Representation |

| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{representation}/groups                            | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{representation}/has_general_concept               | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{representation}/possible_attribute_relation_types | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{representation}/possible_attribute_types          | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{representation}/possible_statuses                 | Removed                          | 5.1                          | Representation |

| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| VocabularyTypeResource | Modified                             | GET, POST /1.0/vocabulary_type/<br>{representation}/status  | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{rep-<br>resentation}/vocabulary   | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{rep-<br>resentation}/workflows    | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/<br>{resource}/comment            | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{ter-<br>m}/binary_fact_type_forms | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{ter-<br>m}/derived_facts          | Removed                          | 5.1                          | Representation |

| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{term}/general_concept      | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/{term}/relations           | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/{term}/signifier           | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{term}/source_relations     | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{term}/specialized_concepts | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{term}/target_relations     | Removed                          | 5.1                          | Representation |

| v4.6 Rest API          | Unchanged /<br>Removed /<br>Modified | Method  | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------------|--------------------------------------|---|----------------------------------|------------------------------|----------------|
| VocabularyTypeResource | Modified                             | POST /1.0/vocabulary_type/<br>{baseResource}/attachment/url           | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{term}/<br>binary_fact_type_forms/full       | Removed                          | 5.1                          | Representation |
| VocabularyTypeResource | Modified                             | GET /1.0/vocabulary_type/{term}/<br>derived_facts/full                | Removed                          | 5.1                          | Representation |
| WorkflowResource       | Modified                             | GET /1.0/workflow/general_con-<br>cept/async                          | Removed                          | 5.1                          | Representation |
| WorkflowResource       | Modified                             | GET /1.0/workflow/{rep-<br>resentation}/all_specialized_con-<br>cepts | Removed                          | 5.1                          | Representation |
| WorkflowResource       | Modified                             | GET /1.0/workflow/{rep-<br>resentation}/general_concept               | Removed                          | 5.1                          | Representation |

| v4.6 Rest API    | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| WorkflowResource | Modified                             | GET /1.0/workflow/{representation}/general_concepts    | Removed                          | 5.1                          | Representation |
| WorkflowResource | Modified                             | GET /1.0/workflow/{representation}/group_attributes    | Removed                          | 5.1                          | Representation |
| WorkflowResource | Modified                             | GET /1.0/workflow/{representation}/groups              | Removed                          | 5.1                          | Representation |
| WorkflowResource | Modified                             | GET /1.0/workflow/{representation}/has_general_concept | Removed                          | 5.1                          | Representation |
| WorkflowResource | Modified                             | GET /1.0/workflow/{term}/binary_fact_type_forms        | Removed                          | 5.1                          | Representation |
| WorkflowResource | Modified                             | GET /1.0/workflow/{term}/derived_facts                 | Removed                          | 5.1                          | Representation |

| v4.6 Rest API    | Unchanged /<br>Removed /<br>Modified | Method   | Added /<br>Removed /<br>Modified | Modified<br>in 5.0 or<br>5.1 | Impacted by    |
|------------------|--------------------------------------|--|----------------------------------|------------------------------|----------------|
| WorkflowResource | Modified                             | GET /1.0/workflow/{term}/general_<br>concept             | Removed                          | 5.1                          | Representation |
| WorkflowResource | Modified                             | GET /1.0/workflow/{term}/possible_object_types           | Removed                          | 5.1                          | Representation |
| WorkflowResource | Modified                             | GET /1.0/workflow/{term}/specialized_concepts            | Removed                          | 5.1                          | Representation |
| WorkflowResource | Modified                             | GET /1.0/workflow/{term}/binary_<br>fact_type_forms/full | Removed                          | 5.1                          | Representation |
| WorkflowResource | Modified                             | GET /1.0/workflow/{term}/derived_<br>facts/full          | Removed                          | 5.1                          | Representation |

## Rest Model changes

| v4.6 Rest Model                 | Unchanged / Removed / Modified | Method | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by |
|---------------------------------|--------------------------------|--------|----------------------------|------------------------|-------------|
| Activity                        | Unchanged                      |        |                            |                        |             |
| ActivityStream                  | Unchanged                      |        |                            |                        |             |
| Adapter1                        | Unchanged                      |        |                            |                        |             |
| Address                         | Unchanged                      |        |                            |                        |             |
| AddressCollection               | Unchanged                      |        |                            |                        |             |
| AddressType                     | Unchanged                      |        |                            |                        |             |
| ArticulationCalculator          | Removed                        |        |                            | 5.1                    | Assignment  |
| ArticulationCalculatorReference | Removed                        |        |                            | 5.1                    | Assignment  |



| <b>v4.6 Rest Model</b>     | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|----------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| ArticulationCalculators    | Removed                               |               |                                   | 5.1                           | Assignment         |
| ArticulationOperator       | Removed                               |               |                                   | 5.1                           | Assignment         |
| ArticulationRule           | Removed                               |               |                                   | 5.1                           | Assignment         |
| ArticulationRuleCollection | Removed                               |               |                                   | 5.1                           | Assignment         |
| AssetImpact                | Unchanged                             |               |                                   |                               |                    |
| AssetImpacts               | Unchanged                             |               |                                   |                               |                    |
| AssignmentGroup            | Removed                               |               |                                   | 5.1                           | Assignment         |
| AssignmentGroupReference   | Removed                               |               |                                   | 5.1                           | Assignment         |
| AssignmentGroups           | Removed                               |               |                                   | 5.1                           | Assignment         |
| AssignmentRule             | Unchanged                             |               |                                   |                               |                    |

| <b>v4.6 Rest Model</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| AssignmentRules        | Unchanged                             |               |                                   |                               |                    |
| Attachment             | Unchanged                             |               |                                   |                               |                    |
| Attachments            | Unchanged                             |               |                                   |                               |                    |
| Attribute              | Unchanged                             |               |                                   |                               |                    |
| AttributeReference     | Unchanged                             |               |                                   |                               |                    |
| AttributeReferences    | Unchanged                             |               |                                   |                               |                    |
| Attributes             | Unchanged                             |               |                                   |                               |                    |
| AttributeType          | Unchanged                             |               |                                   |                               |                    |
| AttributeTypeContainer | Removed                               |               |                                   | 5.1                           | Assignment         |
| AttributeTypeGroup     | Removed                               |               |                                   | 5.1                           | Assignment         |

| <b>v4.6 Rest Model</b>  | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                    | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-------------------------|---------------------------------------|----------------------------------|-----------------------------------|-------------------------------|--------------------|
| AttributeTypes          | Unchanged                             |                                  |                                   |                               |                    |
| AuthorizationException  | Unchanged                             |                                  |                                   |                               |                    |
| BinaryFactType          | Modified                              | withAttributeReferences()        | Added                             | 5.0                           | Representation     |
| BinaryFactType          | Modified                              | withConceptType                  | Added                             | 5.0                           | Representation     |
| BinaryFactType          | Modified                              | withGeneralConceptReference      | Removed                           | 5.1                           | Representation     |
| BinaryFactType          | Modified                              | withSpecializedConceptReferences | Removed                           | 5.1                           | Representation     |
| BinaryFactType          | Modified                              | withStatusReference              | Removed                           | 5.1                           | Representation     |
| BinaryFactType          | Modified                              | withVocabularyReference          | Removed                           | 5.1                           | Representation     |
| BinaryFactTypeReference | Removed                               |                                  |                                   | 5.1                           | Representation     |

| <b>v4.6 Rest Model</b>     | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|----------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| BinaryFactTypeReferences   | Removed                               |               |                                   | 5.1                           | Representation     |
| BinaryFactTypes            | Unchanged                             |               |                                   |                               |                    |
| BooleanAttribute           | Unchanged                             |               |                                   |                               |                    |
| BooleanAttributeReference  | Unchanged                             |               |                                   |                               |                    |
| BooleanResponse            | Unchanged                             |               |                                   |                               |                    |
| CancelProcessResponse      | Unchanged                             |               |                                   |                               |                    |
| CancelProcessResponseEntry | Unchanged                             |               |                                   |                               |                    |
| CancelTaskResponse         | Unchanged                             |               |                                   |                               |                    |
| Change                     | Unchanged                             |               |                                   |                               |                    |
| Comment                    | Unchanged                             |               |                                   |                               |                    |

| <b>v4.6 Rest Model</b>                 | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|--|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| Comments                               | Unchanged                             |               |                                   |                               |                    |
| Communities                            | Unchanged                             |               |                                   |                               |                    |
| Community                              | Unchanged                             |               |                                   |                               |                    |
| CommunityCachedElementResource         | Unchanged                             |               |                                   |                               |                    |
| Com-<br>munityCachedElementsCollection | Unchanged                             |               |                                   |                               |                    |
| CommunityReference                     | Unchanged                             |               |                                   |                               |                    |
| CommunityReferences                    | Unchanged                             |               |                                   |                               |                    |
| CompleteTaskResponse                   | Unchanged                             |               |                                   |                               |                    |
| ComplexRelationTypeGroup               | Removed                               |               |                                   | 5.1                           | Assignment         |

| <b>v4.6 Rest Model</b>     | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|----------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| ConceptTypeContainer       | Removed                               |               |                                   | 5.1                           | Assignment         |
| ConceptTypeGroup           | Removed                               |               |                                   | 5.1                           | Assignment         |
| ConfigProperty             | Unchanged                             |               |                                   |                               |                    |
| Configuration              | Unchanged                             |               |                                   |                               |                    |
| DateAttribute              | Unchanged                             |               |                                   |                               |                    |
| DateAttributeReference     | Unchanged                             |               |                                   |                               |                    |
| DateTimeAttribute          | Unchanged                             |               |                                   |                               |                    |
| DateTimeAttributeReference | Unchanged                             |               |                                   |                               |                    |
| DgcException               | Unchanged                             |               |                                   |                               |                    |
| DropdownValue              | Unchanged                             |               |                                   |                               |                    |

| <b>v4.6 Rest Model</b>  | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| EntityNotFoundException | Unchanged                             |               |                                   |                               |                    |
| Entry                   | Unchanged                             |               |                                   |                               |                    |
| ErrorParams             | Unchanged                             |               |                                   |                               |                    |
| Exception               | Unchanged                             |               |                                   |                               |                    |
| Files                   | Unchanged                             |               |                                   |                               |                    |
| FormData                | Unchanged                             |               |                                   |                               |                    |
| FormProperty            | Unchanged                             |               |                                   |                               |                    |
| FormPropertyFilters     | Unchanged                             |               |                                   |                               |                    |
| FoundAttribute          | Unchanged                             |               |                                   |                               |                    |
| FoundComment            | Unchanged                             |               |                                   |                               |                    |

| <b>v4.6 Rest Model</b>   | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|--------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| FoundElement             | Modified                              | getTags()     | Added                             | 5.1                           | Tags               |
| FoundElement             | Modified                              | withTags()    | Added                             | 5.1                           | Tags               |
| FoundPart                | Unchanged                             |               |                                   |                               |                    |
| Gender                   | Unchanged                             |               |                                   |                               |                    |
| Group                    | Unchanged                             |               |                                   |                               |                    |
| GroupCollection          | Unchanged                             |               |                                   |                               |                    |
| GroupReference           | Unchanged                             |               |                                   |                               |                    |
| IllegalArgumentException | Unchanged                             |               |                                   |                               |                    |
| ImpactRelationType       | Unchanged                             |               |                                   |                               |                    |
| InstantMessagingAccount  | Unchanged                             |               |                                   |                               |                    |



| <b>v4.6 Rest Model</b>            | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| InstantMessagingAccountCollection | Unchanged                             |               |                                   |                               |                    |
| InstantMessagingAccountType       | Unchanged                             |               |                                   |                               |                    |
| Job                               | Unchanged                             |               |                                   |                               |                    |
| JobPagedResult                    | Unchanged                             |               |                                   |                               |                    |
| Jobs                              | Unchanged                             |               |                                   |                               |                    |
| LdapUserMappingConfig             | Unchanged                             |               |                                   |                               |                    |
| LicenseKeyException               | Unchanged                             |               |                                   |                               |                    |
| MapEntries                        | Unchanged                             |               |                                   |                               |                    |
| Mapping                           | Unchanged                             |               |                                   |                               |                    |
| Mappings                          | Unchanged                             |               |                                   |                               |                    |

| v4.6 Rest Model                  | Unchanged / Removed / Modified | Method | Added / Removed / Modified | Modified in 5.0 or 5.1 | Impacted by |
|----------------------------------|--------------------------------|--------|----------------------------|------------------------|-------------|
| MemberCompleteReference          | Unchanged                      |        |                            |                        |             |
| MemberCompleteReferences         | Unchanged                      |        |                            |                        |             |
| MemberReference                  | Unchanged                      |        |                            |                        |             |
| MemberReferences                 | Unchanged                      |        |                            |                        |             |
| MetricGroup                      | Removed                        |        |                            | 5.1                    | Assignment  |
| MetricGroups                     | Removed                        |        |                            | 5.1                    | Assignment  |
| MultiDropdownValue               | Unchanged                      |        |                            |                        |             |
| MultiValueListAttribute          | Unchanged                      |        |                            |                        |             |
| MultiValueListAttributeReference | Unchanged                      |        |                            |                        |             |
| NamingRule                       | Removed                        |        |                            | 5.1                    | Naming Rule |

| <b>v4.6 Rest Model</b>    | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                           | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|---------------------------|---------------------------------------|---|-----------------------------------|-------------------------------|--------------------|
| NamingRuleReference       | Removed                               |   |                                   | 5.1                           | Naming Rule        |
| NamingRules               | Removed                               |   |                                   | 5.1                           | Naming Rule        |
| NotFoundException         | Removed                               |   |                                   | 5.0                           |                    |
| Noun                      | Unchanged                             |   |                                   |                               |                    |
| Nouns                     | Unchanged                             |   |                                   |                               |                    |
| NumericAttribute          | Unchanged                             |   |                                   |                               |                    |
| NumericAttributeReference | Unchanged                             |   |                                   |                               |                    |
| ObjectFactory             | Modified                              | createAssignmentGroup()                 | Removed                           | 5.1                           | Assignment         |
| ObjectFactory             | Modified                              | createAssignmentGroupReference()<br>( ) | Removed                           | 5.1                           | Assignment         |

| <b>v4.6 Rest Model</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------|---------------------------------------|--------------------------------|-----------------------------------|-------------------------------|--------------------|
| ObjectFactory          | Modified                              | createAssignmentGroups         | Removed                           | 5.1                           | Assignment         |
| ObjectFactory          | Modified                              | createAttributeTypeContainer   | Removed                           | 5.1                           | Assignment         |
| ObjectFactory          | Modified                              | createAttributeTypeGroup       | Removed                           | 5.1                           | Assignment         |
| ObjectFactory          | Modified                              | createBinaryFactTypeReference  | Removed                           | 5.1                           | Representation     |
| ObjectFactory          | Modified                              | createBinaryFactTypeReferences | Removed                           | 5.1                           | Representation     |
| ObjectFactory          | Modified                              | createConceptTypeContainer     | Removed                           | 5.1                           | Assignment         |
| ObjectFactory          | Modified                              | createConceptTypeGroup         | Removed                           | 5.1                           | Assignment         |
| PagedResult            | Unchanged                             |                                |                                   |                               |                    |
| PagingProperties       | Unchanged                             |                                |                                   |                               |                    |
| Permissions            | Unchanged                             |                                |                                   |                               |                    |

| <b>v4.6 Rest Model</b>     | <b>Unchanged / Removed / Modified</b> | <b>Method</b>      | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|----------------------------|---------------------------------------|--------------------|-----------------------------------|-------------------------------|--------------------|
| Phone                      | Unchanged                             |                    |                                   |                               |                    |
| PhoneCollection            | Unchanged                             |                    |                                   |                               |                    |
| PhoneType                  | Unchanged                             |                    |                                   |                               |                    |
| ProcessInstance            | Unchanged                             |                    |                                   |                               |                    |
| ProcessInstancePagedResult | Unchanged                             |                    |                                   |                               |                    |
| ProcessInstnaces           | Unchanged                             |                    |                                   |                               |                    |
| ProductModuleType          | Unchanged                             |                    |                                   |                               |                    |
| Relation                   | Unchanged                             |                    |                                   |                               |                    |
| RelationReference          | Modified                              | getStatusReference | Removed                           | 5.1                           | Representation     |
| RelationReference          | Modified                              | setStatusReference | Removed                           | 5.1                           | Representation     |

| <b>v4.6 Rest Model</b>       | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| RelationReferences           | Unchanged                             |               |                                   |                               |                    |
| Relations                    | Unchanged                             |               |                                   |                               |                    |
| RelationTrace                | Unchanged                             |               |                                   |                               |                    |
| RelationTraceEntry           | Unchanged                             |               |                                   |                               |                    |
| RelationTraceResource        | Unchanged                             |               |                                   |                               |                    |
| RelationTraceResourceEntries | Unchanged                             |               |                                   |                               |                    |
| RelationTraceResourceEntry   | Unchanged                             |               |                                   |                               |                    |
| RelationTraceResources       | Unchanged                             |               |                                   |                               |                    |
| RelChange                    | Unchanged                             |               |                                   |                               |                    |
| Representation               | Unchanged                             |               |                                   |                               |                    |

| <b>v4.6 Rest Model</b>     | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|----------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| RepresentationContainer    | Removed                               |               |                                   | 5.1                           | Assignment         |
| RepresentationContainerSet | Removed                               |               |                                   | 5.1                           | Assignment         |
| RepresentationReference    | Unchanged                             |               |                                   |                               |                    |
| RepresentationReferences   | Unchanged                             |               |                                   |                               |                    |
| Representations            | Unchanged                             |               |                                   |                               |                    |
| Resource                   | Unchanged                             |               |                                   |                               |                    |
| Resources                  | Unchanged                             |               |                                   |                               |                    |
| ResourceTypeType           | Modified                              | AC            | Removed                           | 5.1                           | Assignment         |
| ResourceTypeType           | Modified                              | AG            | Removed                           | 5.1                           | Assignment         |
| ResourceTypeType           | Modified                              | ARC           | Removed                           | 5.1                           | Assignment         |

| <b>v4.6 Rest Model</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| ResourceTypeType       | Modified                              | CC            | Removed                           | 5.1                           | Assignment         |
| ResourceTypeType       | Modified                              | CG            | Removed                           | 5.1                           | Assignment         |
| ResourceTypeType       | Modified                              | CRTG          | Removed                           | 5.1                           | Assignment         |
| ResourceTypeType       | Modified                              | MG            | Removed                           | 5.1                           | Assignment         |
| ResourceTypeType       | Modified                              | SC            | Removed                           | 5.1                           | Assignment         |
| ResourceTypeType       | Modified                              | SG            | Removed                           | 5.1                           | Assignment         |
| ResourceTypeType       | Modified                              | SS            | Removed                           | 5.1                           | Snapshots          |
| ResourceTypeType       | Modified                              | SSC           | Removed                           | 5.1                           | Snapshots          |
| ResourceTypeType       | Modified                              | VG            | Removed                           | 5.1                           | Assignment         |
| Role                   | Unchanged                             |               |                                   |                               |                    |



| <b>v4.6 Rest Model</b>   | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|--------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| RoleReference            | Unchanged                             |               |                                   |                               |                    |
| RoleReferences           | Unchanged                             |               |                                   |                               |                    |
| ScriptAttribute          | Unchanged                             |               |                                   |                               |                    |
| ScriptAttributeReference | Unchanged                             |               |                                   |                               |                    |
| SearchResult             | Unchanged                             |               |                                   |                               |                    |
| SearchResultItem         | Removed                               |               |                                   | 5.0                           |                    |
| SearchResultItems        | Removed                               |               |                                   | 5.0                           |                    |
| SimpleTerm               | Unchanged                             |               |                                   |                               |                    |
| SimpleTerms              | Unchanged                             |               |                                   |                               |                    |
| SingleValueListAttribute | Unchanged                             |               |                                   |                               |                    |

| <b>v4.6 Rest Model</b>            | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-----------------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| SingleValueListAttributeReference | Unchanged                             |               |                                   |                               |                    |
| Snapshot                          | Removed                               |               |                                   | 5.1                           | Snapshots          |
| SnapshotConfiguration             | Removed                               |               |                                   | 5.1                           | Snapshots          |
| SnapshotConfigurationReference    | Removed                               |               |                                   | 5.1                           | Snapshots          |
| SnapshotConfigurationReferences   | Removed                               |               |                                   | 5.1                           | Snapshots          |
| SnapshotReference                 | Removed                               |               |                                   | 5.1                           | Snapshots          |
| SnapshotReferences                | Removed                               |               |                                   | 5.1                           | Snapshots          |
| Snapshots                         | Removed                               |               |                                   | 5.1                           | Snapshots          |
| StartFormData                     | Unchanged                             |               |                                   |                               |                    |
| StartWorkflowResponse             | Unchanged                             |               |                                   |                               |                    |

| <b>v4.6 Rest Model</b>     | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|----------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| StartWorkflowResponseEntry | Unchanged                             |               |                                   |                               |                    |
| StatisticConfiguration     | Unchanged                             |               |                                   |                               |                    |
| StatisticConfigurations    | Unchanged                             |               |                                   |                               |                    |
| StatusContainer            | Removed                               |               |                                   | 5.1                           | Assignment         |
| StatusGroup                | Removed                               |               |                                   | 5.1                           | Assignment         |
| StringAttribute            | Unchanged                             |               |                                   |                               |                    |
| StringAttributeReference   | Unchanged                             |               |                                   |                               |                    |
| StringCollection           | Unchanged                             |               |                                   |                               |                    |
| SyncActionType             | Unchanged                             |               |                                   |                               |                    |
| Task                       | Unchanged                             |               |                                   |                               |                    |

| <b>v4.6 Rest Model</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                 | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------|---------------------------------------|-------------------------------|-----------------------------------|-------------------------------|--------------------|
| TaskFormData           | Unchanged                             |                               |                                   |                               |                    |
| TaskPagedResult        | Unchanged                             |                               |                                   |                               |                    |
| TaskResponseEntry      | Unchanged                             |                               |                                   |                               |                    |
| Tasks                  | Unchanged                             |                               |                                   |                               |                    |
| Term                   | Modified                              | getBinaryFactTypeReferences() | Removed                           | 5.1                           | Fact Type          |
| Term                   | Modified                              | setBinaryFactTypeReferences   | Removed                           | 5.1                           | Fact Type          |
| Term                   | Modified                              | withBinaryFactTypeReferences  | Removed                           | 5.1                           | Fact Type          |
| TermPagedResult        | Unchanged                             |                               |                                   |                               |                    |
| TermReference          | Modified                              | getDescription()              | Added                             | 5.1                           |                    |
| TermReference          | Modified                              | setDescription()              | Added                             | 5.1                           |                    |

| <b>v4.6 Rest Model</b>         | <b>Unchanged / Removed / Modified</b> | <b>Method</b> | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|--------------------------------|---------------------------------------|---------------|-----------------------------------|-------------------------------|--------------------|
| TermReferences                 | Unchanged                             |               |                                   |                               |                    |
| Terms                          | Unchanged                             |               |                                   |                               |                    |
| TermValidationInfo             | Unchanged                             |               |                                   |                               |                    |
| TermValidationResultReference  | Unchanged                             |               |                                   |                               |                    |
| TermValidationResultReferences | Unchanged                             |               |                                   |                               |                    |
| TraceabilityGroup              | Removed                               |               |                                   | 5.1                           | Assignment         |
| TraceabilityGroups             | Removed                               |               |                                   | 5.1                           | Assignment         |
| User                           | Unchanged                             |               |                                   |                               |                    |
| UserCollection                 | Unchanged                             |               |                                   |                               |                    |
| UserReference                  | Unchanged                             |               |                                   |                               |                    |

| <b>v4.6 Rest Model</b>  | <b>Unchanged / Removed / Modified</b> | <b>Method</b>     | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|-------------------------|---------------------------------------|-------------------|-----------------------------------|-------------------------------|--------------------|
| UserSmallReference      | Unchanged                             |                   |                                   |                               |                    |
| ValidationGroup         | Removed                               |                   |                                   | 5.1                           | Assignment         |
| ValidationGroups        | Removed                               |                   |                                   | 5.1                           | Assignment         |
| ValidationRuleContainer | Removed                               |                   |                                   | 5.1                           | Assignment         |
| View                    | Unchanged                             |                   |                                   |                               |                    |
| ViewConflict            | Unchanged                             |                   |                                   |                               |                    |
| ViewConflicts           | Unchanged                             |                   |                                   |                               |                    |
| ViewReference           | Modified                              | getType()         | Added                             | 5.0                           | Views              |
| ViewReference           | Modified                              | isIsWorkingView() | Added                             | 5.0                           | Views              |
| ViewReference           | Modified                              | setIsWorkingView  | Added                             | 5.0                           | Views              |

| <b>v4.6 Rest Model</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>     | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------|---------------------------------------|-------------------|-----------------------------------|-------------------------------|--------------------|
| ViewReference          | Modified                              | setType()         | Added                             | 5.0                           | Views              |
| ViewReference          | Modified                              | withIsWorkingView | Added                             | 5.0                           | Views              |
| ViewReference          | Modified                              | withType()        | Added                             | 5.0                           | Views              |
| ViewReferences         | Unchanged                             |                   |                                   |                               |                    |
| ViewRightReference     | Unchanged                             |                   |                                   |                               |                    |
| ViewRightReferences    | Unchanged                             |                   |                                   |                               |                    |
| ViewRule               | Unchanged                             |                   |                                   |                               |                    |
| ViewRuleSet            | Unchanged                             |                   |                                   |                               |                    |
| ViewTypeType           | Added                                 |                   |                                   | 5.0                           | Views              |
| Vocabularies           | Unchanged                             |                   |                                   |                               |                    |

| <b>v4.6 Rest Model</b> | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                 | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------|---------------------------------------|-------------------------------|-----------------------------------|-------------------------------|--------------------|
| Vocabulary             | Modified                              | getBinaryFactTypeReferences() | Removed                           | 5.1                           | Fact Type          |
| Vocabulary             | Modified                              | setBinrayFactTypeReferences() | Removed                           | 5.1                           | Fact Type          |
| Vocabulary             | Modified                              | withBinrayFactTypeReferences  | Removed                           | 5.1                           | Fact Type          |
| Vocabulary             | Modified                              | withNamingRuleReference()     | Removed                           | 5.0                           | Naming Rule        |
| VocabularyReference    | Modified                              | setNamingRuleReference()      | Removed                           | 5.0                           | Naming Rule        |
| VocabularyReference    | Modified                              | getNamingRuleReference()      | Removed                           | 5.0                           | Naming Rule        |
| VocabularyReference    | Modified                              | withNamingRuleReference()     | Removed                           | 5.0                           | Naming Rule        |
| VocabularyReferences   | Unchanged                             |                               |                                   |                               |                    |
| Website                | Unchanged                             |                               |                                   |                               |                    |
| WebsiteCollection      | Unchanged                             |                               |                                   |                               |                    |



| <b>v4.6 Rest Model</b>       | <b>Unchanged / Removed / Modified</b> | <b>Method</b>                  | <b>Added / Removed / Modified</b> | <b>Modified in 5.0 or 5.1</b> | <b>Impacted by</b> |
|------------------------------|---------------------------------------|--------------------------------|-----------------------------------|-------------------------------|--------------------|
| WebsiteType                  | Unchanged                             |                                |                                   |                               |                    |
| WorkflowDefinition           | Modified                              | isGlobalCreate()               | Added                             | 5.0                           | Global Create      |
| WorkflowDefinition           | Modified                              | setGlobalCreate()              | Added                             | 5.0                           | Global Create      |
| WorkflowDefinition           | Modified                              | withBinaryFactTypeReferences() | Removed                           | 5.1                           | Fact Type          |
| WorkflowDefinition           | Modified                              | withGlobalCreate()             | Added                             | 5.0                           | Global Create      |
| WorkflowDefinitionReference  | Unchanged                             |                                |                                   |                               |                    |
| WorkflowDefinitionReferences | Unchanged                             |                                |                                   |                               |                    |
| WorkflowDefinitions          | Unchanged                             |                                |                                   |                               |                    |
| WorkflowEventTypes           | Unchanged                             |                                |                                   |                               |                    |
| WorkflowEventTypeType        | Unchanged                             |                                |                                   |                               |                    |

| <b>v4.6 Rest Model</b> | <b>Unchanged<br/>/ Removed /<br/>Modified</b> | <b>Method</b> | <b>Added /<br/>Removed<br/>/ Modified</b> | <b>Modified<br/>in 5.0 or<br/>5.1</b> | <b>Impacted by</b> |
|------------------------|---|---------------|---|---------------------------------------|--------------------|
| WorkflowExclusivity    | Unchanged                                     |               |   |                                       |                    |

# Appendix A - Plain-text attributes

When you upgrade to 5.7 or newer, characteristics of some Catalog-related assets are converted from rich-text format to plain-text format.

The following table contains the list of characteristics with their corresponding unique identifiers:

| Name                     | Unique identifier                    |
|--------------------------|--------------------------------------|
| Original name            | 00000000-0000-0000-0001-000500000032 |
| Location                 | 00000000-0000-0000-0000-000000000203 |
| Technical Data Type      | 00000000-0000-0000-0000-000000000219 |
| Schema name              | 00000000-0000-0000-0000-000000000226 |
| File location            | 00000000-0000-0000-0001-000500000004 |
| Table Type               | 00000000-0000-0000-0001-000500000008 |
| Primary Key Name         | 00000000-0000-0000-0001-000500000016 |
| Minimum Value            | 00000000-0000-0000-0001-000500000040 |
| Maximum Value            | 00000000-0000-0000-0001-000500000041 |
| Date and/or Time Pattern | 00000000-0000-0000-0001-000500000044 |
| Mode                     | 00000000-0000-0000-0001-000500000048 |
| 1st Percentile           | 00000000-0000-0000-0001-000500000049 |
| 5th Percentile           | 00000000-0000-0000-0001-000500000050 |
| 1st Decile               | 00000000-0000-0000-0001-000500000051 |

| Name                             | Unique identifier                    |
|----------------------------------|--------------------------------------|
| 1st Quartile                     | 00000000-0000-0000-0001-000500000052 |
| Median                           | 00000000-0000-0000-0001-000500000053 |
| 3rd Quartile                     | 00000000-0000-0000-0001-000500000054 |
| Category                         | 00000000-0000-0000-0001-000500000046 |
| 9th Decile                       | 00000000-0000-0000-0001-000500000055 |
| 95th Percentile                  | 00000000-0000-0000-0001-000500000056 |
| 99th Percentile                  | 00000000-0000-0000-0001-000500000057 |
| Empty values definition override | 00000000-0000-0000-0001-000500000063 |
| File Type                        | 00000000-0000-0000-0001-002500000012 |
| Glue database name               | 00000000-0000-0000-0001-000500000066 |
| Glue table name                  | 00000000-0000-0000-0001-000500000067 |