Veeva Network

Veeva Network 21R3.0.1 Release Notes

December 2021

Contents

About these Release Notes

These Release Notes describe all features that are included in Veeva Network 21R3.0.

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For more information, see About Network Releases in the *Veeva Network Online Help*.

Browser requirements

Veeva Network is tested and supported on the latest version of these browsers:

- Google Chrome™
- Apple® Safari®
- Microsoft® Edge

Veeva Network is not supported on mobile devices.

What's new

The following key enhancements comprise the Veeva Network 21R3.0 major release.

			ST	DS	DM	AD
General updates						
Network UI	Changes are added to standardize icons.	21R3.0	●	●	●	●
Network widgets						
Hierarchy Explorer	Early adopters can use this new feature to explore health systems from a top-down approach.	21R3.0	●	●	●	●
Network hashtags	Network hashtags are now available in the Search, Profile, DCR, and My Request widgets.	21R3.0	●	●	●	●
Search widget	Search results for HCPs now include the Medical Degree and Specialty fields.	21R2.1	●	●	●	●
Search/Profiles						
Network hashtags	Hashtags now display on record profiles and on search results.	21R2.1	●	●	●	●
Data components						
Affiliation widget tabs	Data components that contain data for multiple accounts display in tabs.	21R3.0	●	●	●	●
Network widgets	Data components are now supported on account profiles in Network widgets.	21R2.1	●	●	●	●
Inbox						
Tasks for large entities	Improvements have been made to the DCR process to support tasks that include a large number of sub-objects or associated tasks.	21R2.1	●	●	●	●
Reports						
Data quality reports	The **Date** field now displays the start date of the data quality run, not the last update from the reporting data warehouse.	21R3.0	●	●	●	●
Custom tables	Users can create custom tables for their own use or for shared use in the SQL Query Editor.	21R2.1		●	●	●
Real time exports	Entity-level updates are now immediately exported to the reporting database.	21R2.1		●	●	●

			ST	DS	DM	AD
Data Model						
Data privacy opt out date	The custom data_privacy_opt_out_date__c field will become read-only in this release.	21R3.0			●	●
Data privacy opt out	South Korea is added to the list of countries that Veeva OpenData supports for opted out HCPs.	21R3.0			●	●
Formatted name	A custom calculation is added for South Korea.	21R3.0			●	●
Non-system fields	Several updates have been made to non-system Veeva fields.	21R2.1.3			●	●
New countries supported	Data models have been added for several countries for Latin America.	21R2.1			●	●
New language	Korean (KO) is now supported for data model fields and reference codes.	21R2.1			●	●
Cluster management	This feature now supports cluster data for Ireland, Netherlands, Russia, and Switzerland.	21R2.1			●	●
Geocodes	Latitude and longitude fields are now available for addresses in all countries.	21R2.1			●	●
Custom objects						
Limit the number of relationships	Custom relationship objects can be limited to a one-to-many relationship between main objects.	21R3.0			●	●
Hard delete custom object records	Custom object records can now be completely removed from your Network instance..	21R2.1			●	●
Subscriptions - General						
Primary field moves	Network now provides a summary of the updates that occur on primary fields during subscription jobs.	21R3.0			●	●

			ST	DS	DM	AD
Veeva OpenData subscriptions						
Geo Subdivision subscriptions	The Geo Subdivision and Geo Subdivision 2 subscriptions are now available for the United Kingdom	21R3.0			●	●
AMA data subscription	A new AMA data subscription for US OpenData subscriptions control the behavior of the AMA fields depending on your agreement with the AMA.	21R2.1.3			●	●
Digital Affinity Score subscription	US OpenData subscriptions contain the option to receive a score that indicates an HCP's affinity for consuming digital data.	21R2.1.3			●	●
Mail only addresses	Mail only addresses can be automatically invalidated when they are downloaded from Veeva OpenData.	21R2.1			●	●
Source subscriptions						
Custom keys	The wizard is updated to support creating multiple custom keys for each main object defined for a sub-object.	21R3.0			●	●
Network Expressions	A new function, SETI, can be used to help load dynamic attribute data from Veeva CRM.	21R2.1			●	●
Users						
User status	The user status label has been changed from Disabled to Inactive.	21R2.1			●	●
Admin settings						
Workflow settings	Default field values can be applied to new records when tasks are created if the fields are empty.	21R3.0			●	●
Integrations						
Network Bridge warnings	Detailed warnings now display in your Network Bridge configuration if you link to an incorrectly configured target subscription.	21R2.1			●	●
Network Bridge errors	Administrators can now report on record-level errors in Network Bridge jobs.	21R2.1			●	●
Security settings						
SSL certificates	Customers who explicitly download and install certificates must update the certificate for veevanetwork.com.	21R3.0				●
Transport Layer Security	Veeva Network has deprecated support for TLS 1.1.	21R2.1				●

			ST	DS	DM	AD
API						
Version update	The Network API is updated to v25.0.	21R3.0		Developers		
Match API	Use the new Match API to immediately match data.	21R3.0		Developers		
Network hashtags	Integration Users can now include hashtags in the Search, Retrieve, and Retrieve Change Request API calls.	21R3.0		Developers		

Note: The System and Data Admin user has all of the capabilities of the System Administrator and Data Steward users. Features and enhancements that apply to those users also apply to the System and Data Admin user.

Data Governance - Specific updates for fields and reference data are provided in the *Veeva Network Data Governance* release notes for every minor and major Network release.

General updates

NETWORK UI IMPROVEMENTS

21R3

Changes are being added to the Network UI to standardize icons. You might notice slight differences in icon appearance and sizes throughout the UI.

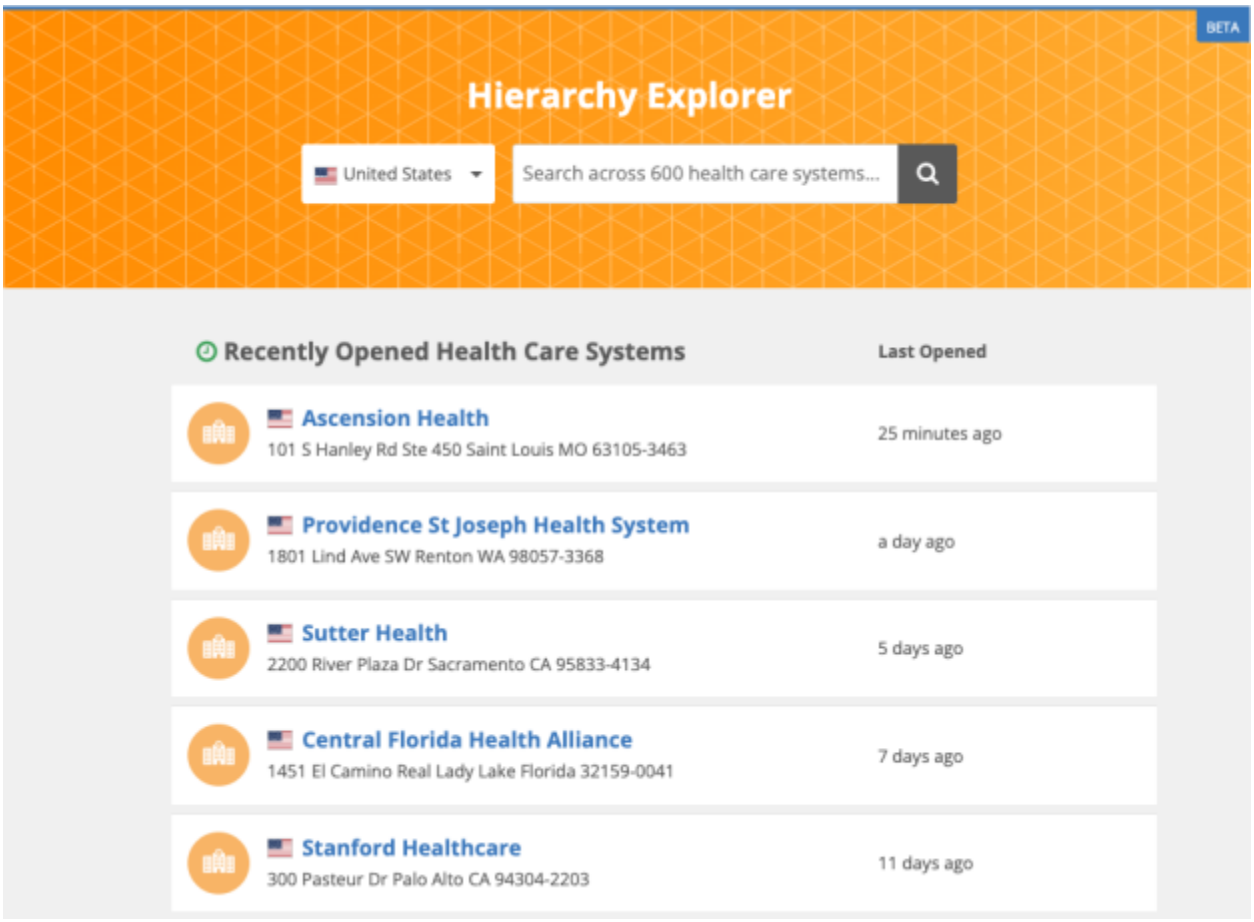
These changes are enabled by default in all Network instances.

Network widgets

HIERARCHY EXPLORER BETA

21R3

Hierarchy Explorer is a new feature that enables you to explore entire health systems from a top-down approach. All levels of the hierarchy display so you can search through it to find new targets and to visualize and understand the hierarchy. Only the data in your Network instance displays.



Availability

This feature is for Early Adopters. If you are interested in using the Hierarchy Explorer, contact your Veeva Network representative.

Widget support

The Hierarchy Explorer is available as a Network widget. You can add it to the Network Portal, an internal application, or Veeva CRM Online.

Note: If Hierarchy Explorer is embedded in an internal application or CRM Online, single sign-on is required.

Benefits

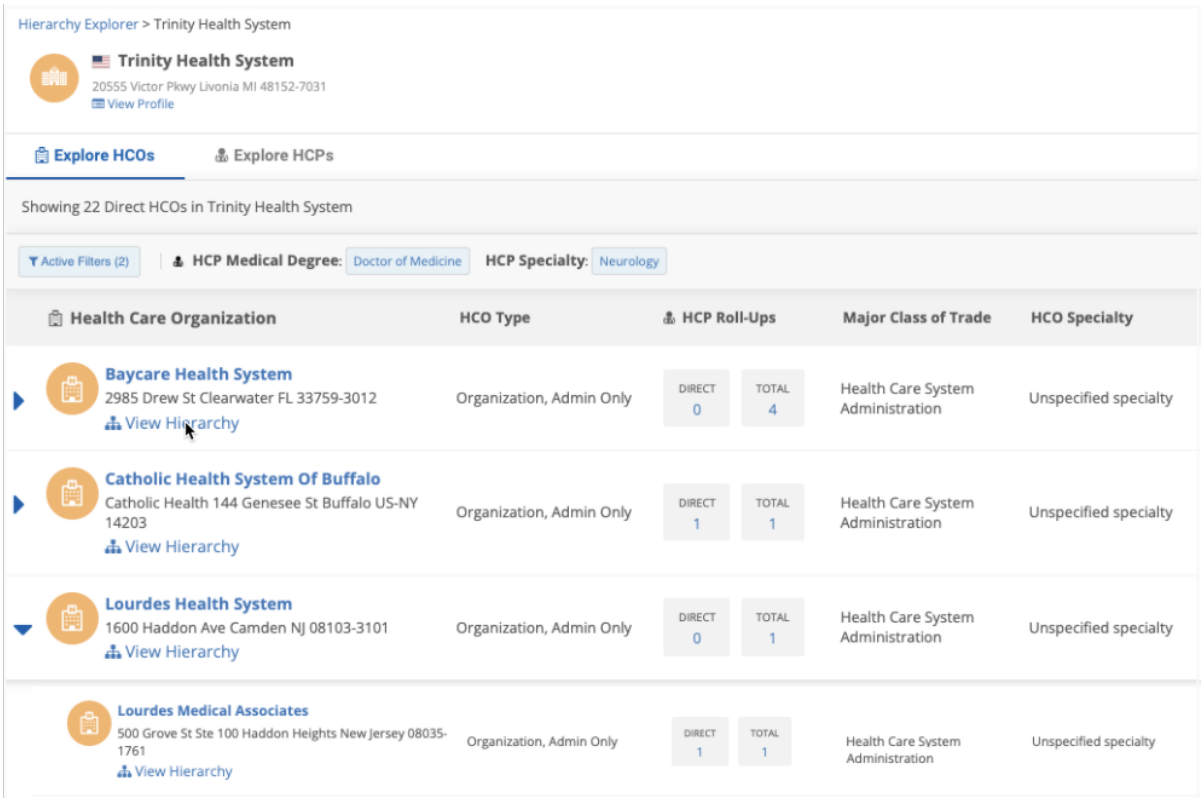
Use the Hierarchy Explorer for the following activities:

- Visualize large hierarchies. Navigate through all levels of HCOs associated to the health system.
- Understand the number of HCPs that roll up (directly and indirectly) to an HCO and then explore those HCPs.
- Use filters to identify targets inside a health system. For example, you can filter a health system to display only HCOs with neurologists at UCLA.

Example 1

Find HCOs in a health system that have doctors who specialize in Neurology

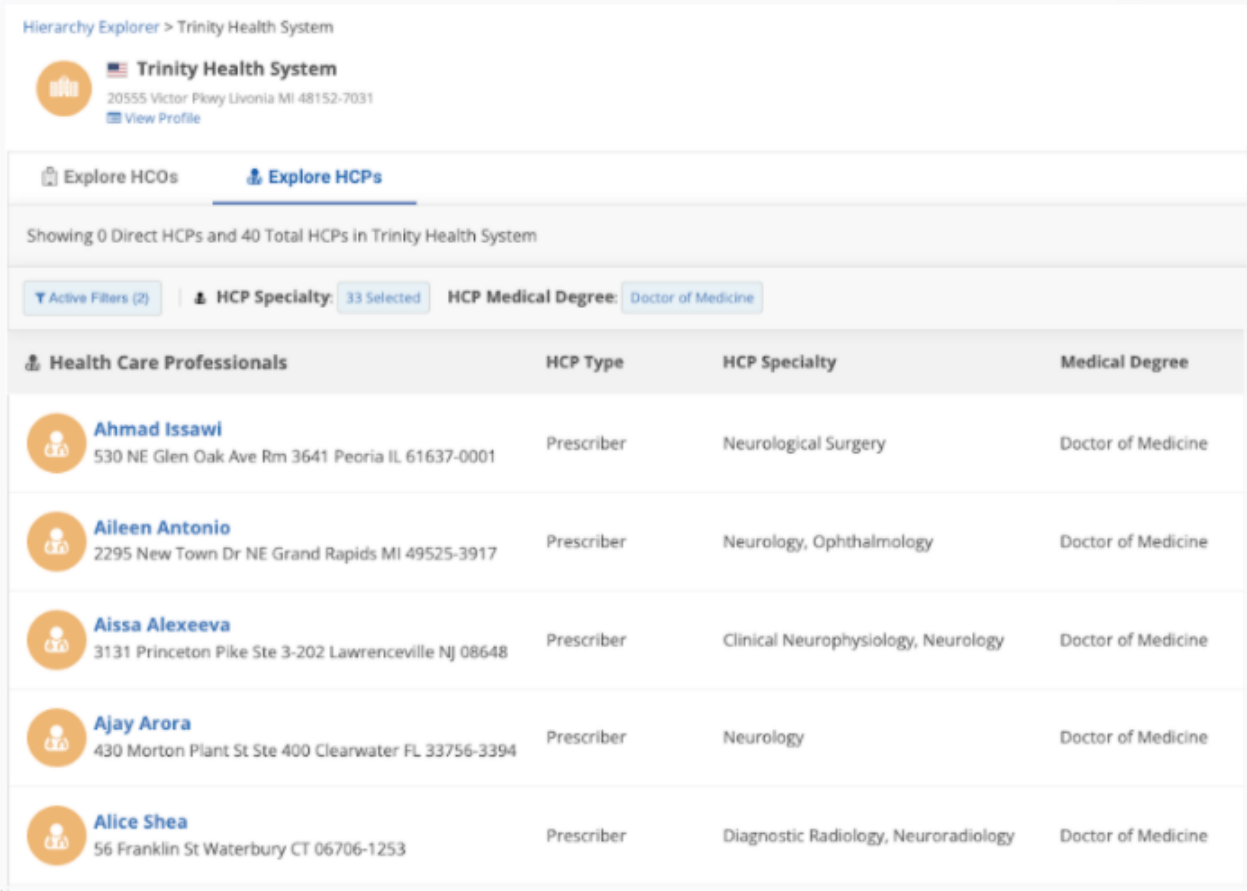
Use the Hierarchy Explorer to visualize the hierarchy of the Trinity Health system based on this search criteria. The HCP Roll-Ups column represent the count of neurologists that roll up to each HCO (direct and total).



Example 2

Find HCPs in a health system that have doctors who specialize in Neurology

Every level of the health system is searched. The Hierarchy Explorer displays the HCPs that match the criteria.



NETWORK HASHTAGS

21R3

Network hashtags are now available in the Search, Profile, DCR, and My Request widgets. Hashtags summarize important details on record profiles.

Network provides a set of predefined hashtags and administrators can create hashtags for their specific business purposes. For example, you can use hashtags to easily identify records that were already downloaded in Salesforce® Service Cloud.

This enhancement is enabled by default in your Network instance.

Search widget

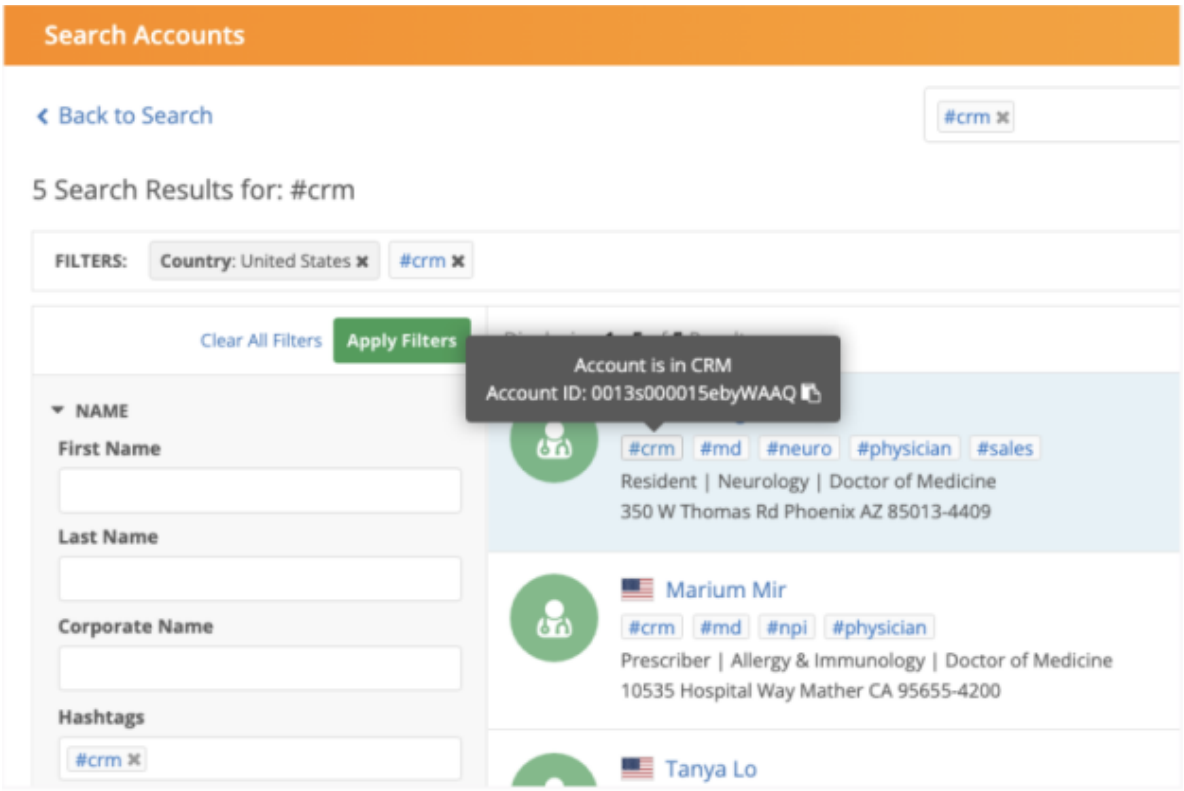
Widget users can use hashtags to quickly find relevant records. Hashtags can be used in search queries to improve search accuracy and they display on search results to summarize records.

When you type the hash symbol (#) in the search bar, the list of available hashtags display. The hashtags are filtered for the objects that are available and the country defined for the widget. For example, if the widget contains HCPs, but no HCOs, only HCP hashtags will display.

Note: Using typeahead to find hashtags is not available in Apple® Safari® and unsupported browsers (for example, Firefox®)

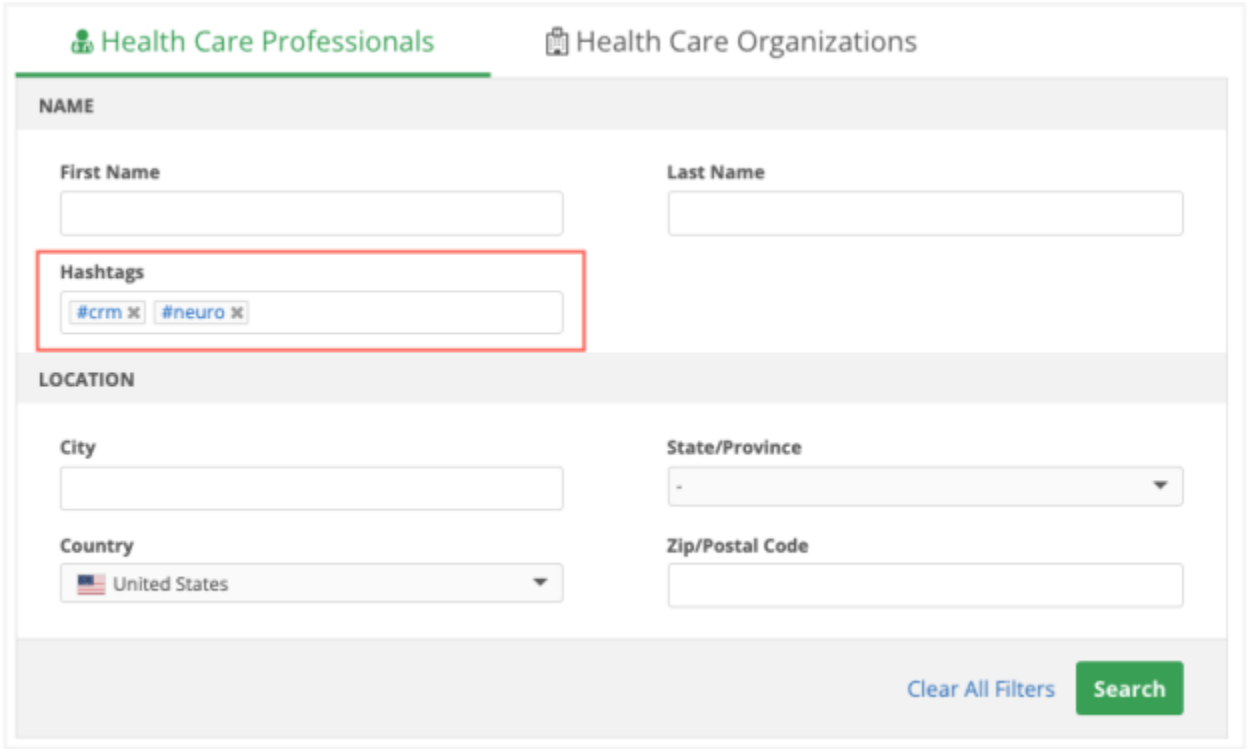
- Select the hashtags that you want to use for the search.

Hashtags also display for each search result. Apply more hashtags in the filter panel to reduce your search results.



Advanced Search

You can use the **Hashtags** field in the Advanced Search form to apply hashtags to your query.



Click the **Hashtags** field to see the hashtags that are available for the search query. The hashtags are filtered for the object tab. For example, on the **Health Care Professionals** tab, only hashtags that relate to HCPs display in the hashtag list.

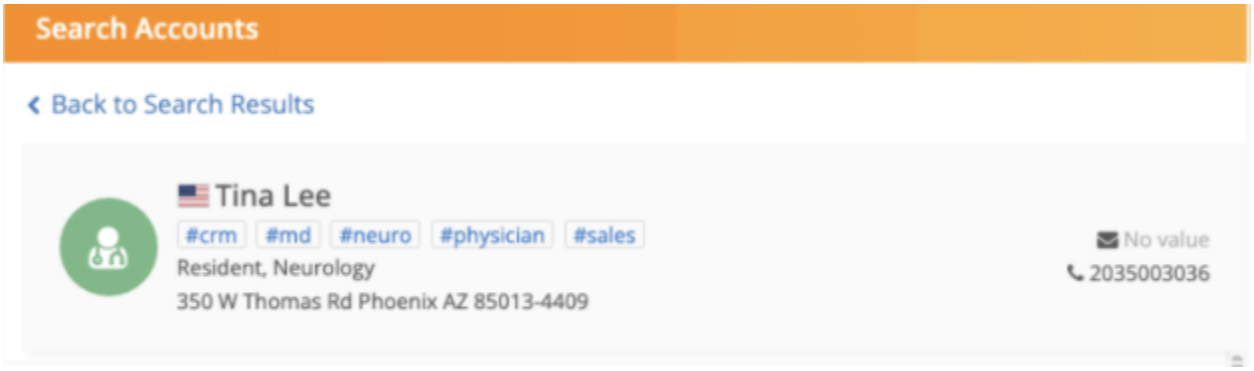
Actions

- Hover over the hashtag to view a description. Some hashtags might contain additional information like custom keys or IDs. Click the **Copy** icon to copy the info into your clipboard so you can use it for a new search.
- Click a hashtag to start a new search. For example, click the `#md` hashtag to search for HCPs that have a Doctor of Medicine degree.

When you select a record, hashtags display on the profile beside the record name.

Profile widget

When you open a record profile in the Profile widget or Search widget, hashtags display beside the record name.



A count displays beside the hashtags if there are more hashtags on the record. Click the count to view the additional hashtags.

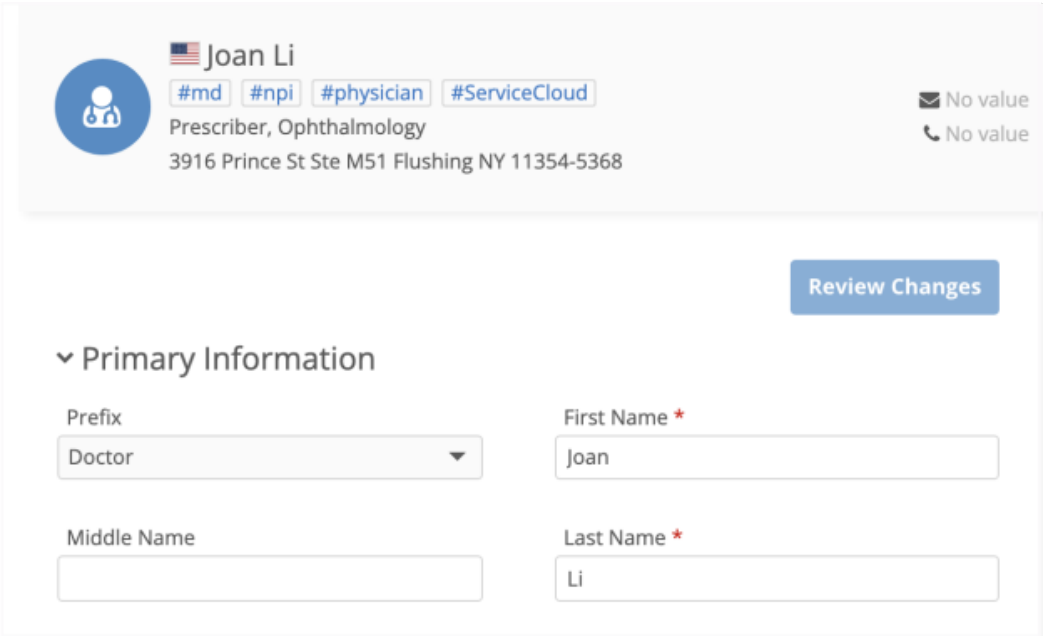
Actions

- Hover over the hashtag to view a description. Some hashtags might contain additional information like custom keys or IDs. Click the **Copy** icon to easily copy the info into your clipboard.

Note: Hashtags are not active in the Profile widget; they cannot be clicked.

DCR widget

Hashtags display below the record name on data change request pages in the Profile widget.



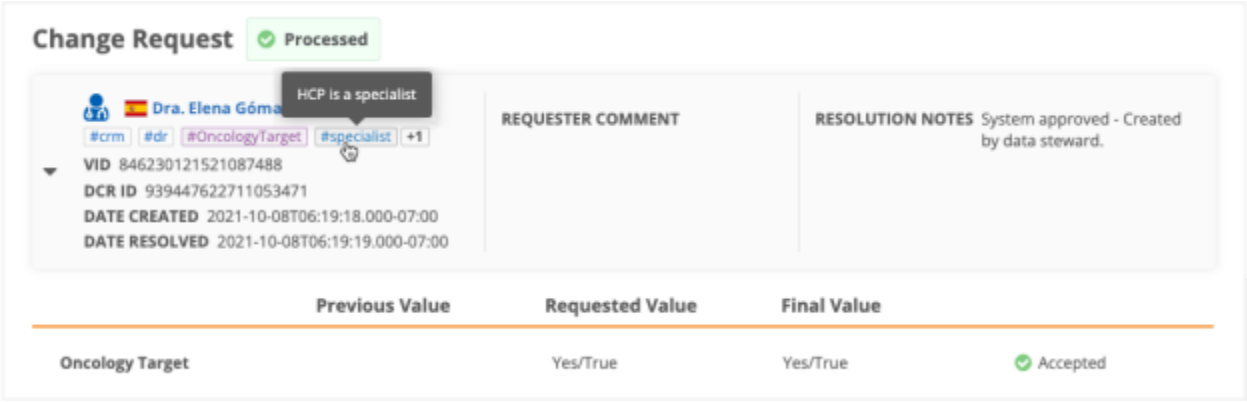
A count displays beside the hashtags if there are more hashtags on the record. Click the count to view the additional hashtags.

Actions

- Hover over the hashtag to view a description. Some hashtags might contain additional information like custom keys or IDs. Click the **Copy** icon to easily copy the info into your clipboard.

My Request widgets

Hashtags display below the record name on data change requests. Only records with a Veeva ID (VID) display hashtags. Add requests that do not have a VID do not display hashtags.



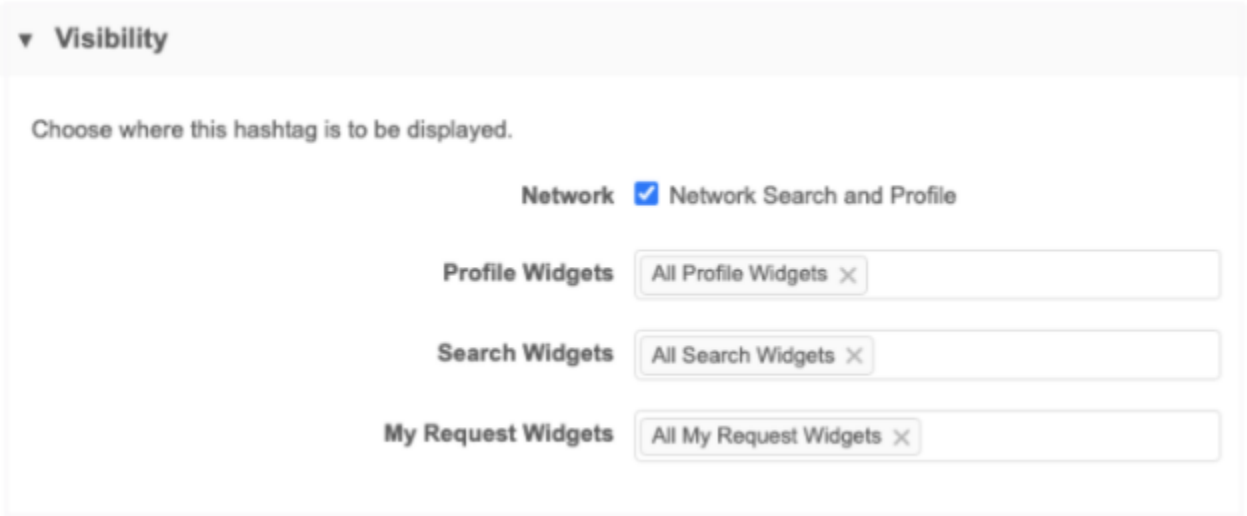
Actions

- Hover over the hashtag to view a description. Some hashtags might contain additional information like custom keys or IDs. Click the **Copy** icon to copy the info into your clipboard so you can use the information.
- A count displays beside the hashtags if there are more hashtags on the record. Click the count and the additional hashtags will display on the row below.

Hashtag administration

Administrators and Data Managers can define which Network widgets display hashtags. By default, hashtags will display in all Search, Profile, DCR, and My Request widgets that you have enabled in your Network instance.

Note: The #candidate hashtag is enabled only for Network Search and Profile.



To define specify where hashtags display in a new or existing hashtag:

1. In the Admin console, click **Data Model > Network Hashtags**.
2. Select an existing hashtag or create a new hashtag.
3. On the hashtag configuration, in the **Visibility** section, update the settings:
    - **Network** - Hashtags will display in the Network Search and on Profile pages.
    - **Widgets** - In the **Profile Widgets**, **Search Widgets**, and **My Request Widgets** fields, clear the **All** selection and choose the specific widgets from the list. The widgets that are enabled in your Network instance display in the list.
4. **Save** your changes.

Exporting hashtag configurations

Hashtags can be exported from Sandbox instances to Production instances using export packages. The **Visibility** settings for Network is exported. Widget-specific visibility rules are not exported.

Network API

Hashtags can now display in the Network API. For more information, see the "Hashtags in the Network API" topic in these *Release Notes*.

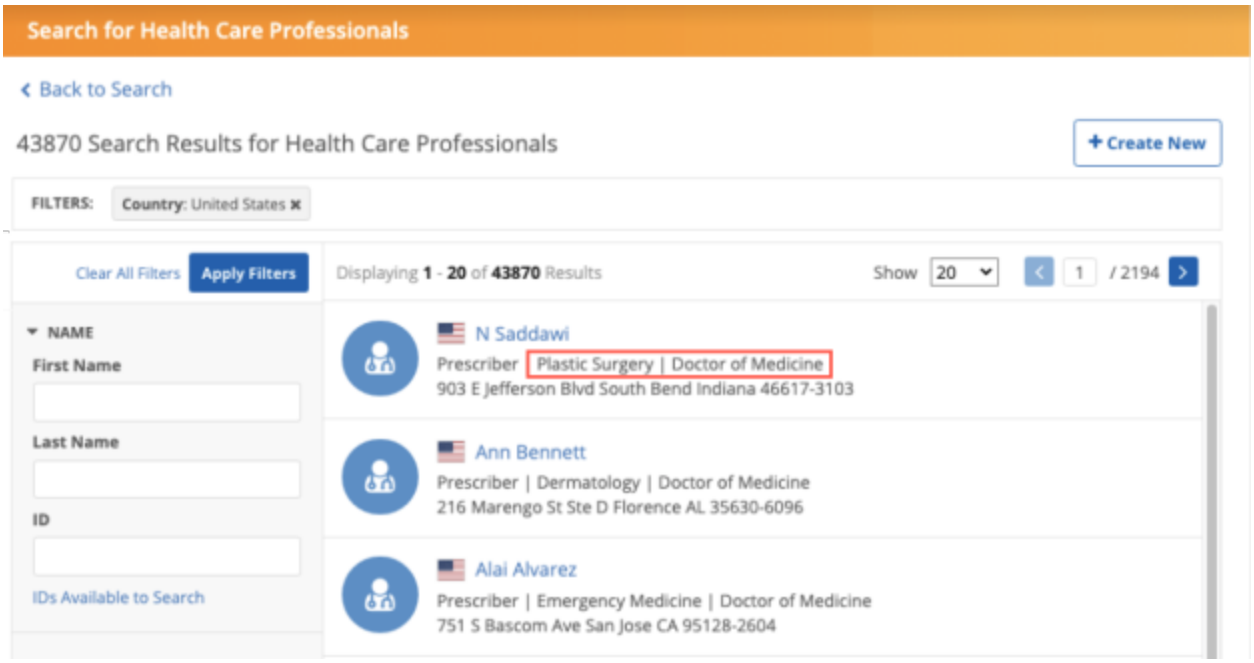
SEARCH WIDGET

21R2.1

The search results for HCPs now contain additional data to help you to identify and distinguish the records.

The following fields have been added to the results:

- Medical Degree
- Specialty



This enhancement is enabled in your Search widget by default.

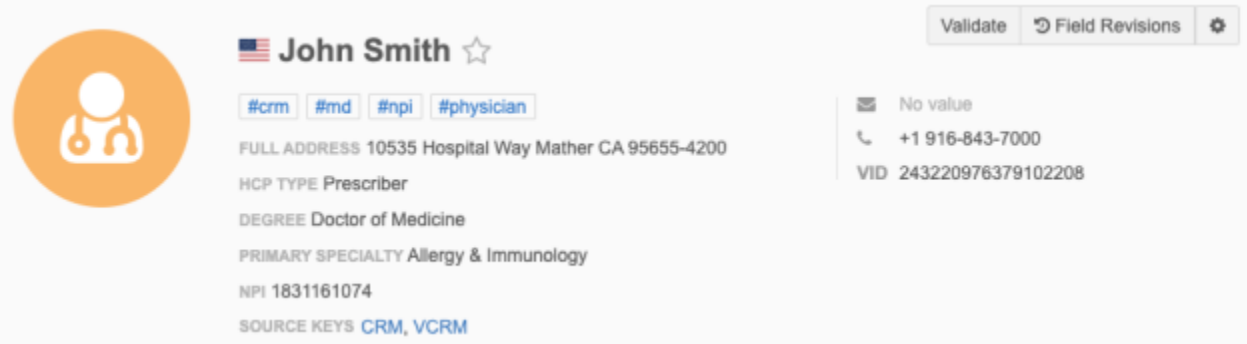
Search and Profiles

NETWORK HASHTAGS

21R2.1

Hashtags now display on record profiles to summarize important details. Hashtags also display on search results and can be used in search queries to improve search accuracy.

Network provides a set of predefined hashtags and administrators can create hashtags for their specific business purposes.



This feature is enabled by default in your Network instance.

Benefits for using hashtags:

Hashtags help users to search for and to identify relevant records.

Hashtags help you to:

- **Summarize records** - Record profiles contain a lot of data. Users typically spend time on the profile analyzing the data to ensure they have the correct record. Use hashtags to summarize the important details.
- **Search for records** - Many users know to search by name and address in basic search but are unsure of the other fields and reference values that can help to filter the results. Now, they can use hashtags to easily filter records for specific data.

  For example, if you search for `UCLA hospital` in the Network search bar, the search results will display all records matching those keywords. This can include hospitals, health systems, clinics, HCPs, and so on. If you use the `#hospital` hashtag in your query, `UCLA #hospital`, the search results is filtered on records that mention UCLA and have the HCO Type field set to "hospital". The other HCO types and HCP records are filtered from the results.

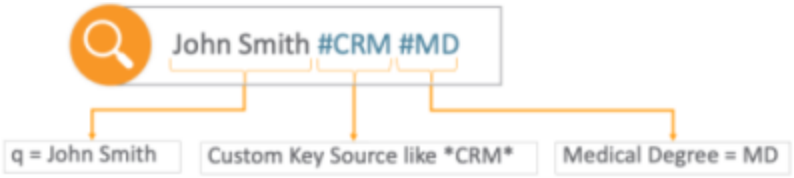
- **Find new targets** - Use hashtags to identify targets for your sales reps. For example, to find nurses that specialize in pediatrics at a specific hospital, you can type the hospital name and use a #nurse and #pediatrics hashtag.
- **Search for records from specific sources** - Create hashtags for specific custom key sources so users can easily find records for those sources (for example, `#sales`). A predefined custom key for the Veeva CRM source (`#crm`) is provided to identify records in Veeva CRM.

About hashtags

Review these key details about hashtags:

- They are not stored on records, they are dynamically calculated based on the rules in the hashtag configuration. You do not have to update records to add hashtags.

  For example, if you use the predefined hashtags called `#crm` and `#md` in your search query, the hashtags are automatically applied to HCP records that meet each hashtag rule (the custom key source contains CRM and the HCP `medical__degree` field value is Doctor of Medicine).



- Network provides predefined hashtags that are enabled by default. These hashtags can be edited or disabled.
- Administrators and data managers can create hashtags.
- They are specific to your Network instance; they are managed locally.
- They are supported for HCP, HCO, and custom object records.
- Hashtags display on Veeva OpenData records and local records. You can use hashtags to search for OpenData records that have not been downloaded to your Network instance.

  For example, if you search using the `#nurse` hashtag, records in the OpenData database that meet the hashtag rules for `#nurse` (the HCP has one of the following degrees: Doctor of Medicine or Nurse Practitioner) display and can be downloaded.

- Hashtags that Veeva OpenData uses do not display on records in your Network instance. Hashtags are specific to your Network instance.
- Hashtag rules are based on fields so they are only available for the countries where those fields are available.

  For example, the predefined `#npi` hashtag is available only for the United States.

- They are limited to the countries and entities that you have access to through your data visibility profiles.

  For example, if you do not have access to the United States through your data visibility profile, you will not see the predefined `#npi` hashtag in your Network instance.

- They are available in the Network UI (record profiles and Network Search) and the Network API.
- Searching for hashtags is case-insensitive. There is no difference between `#npi` and `#NPI`.

Hashtags on record profiles

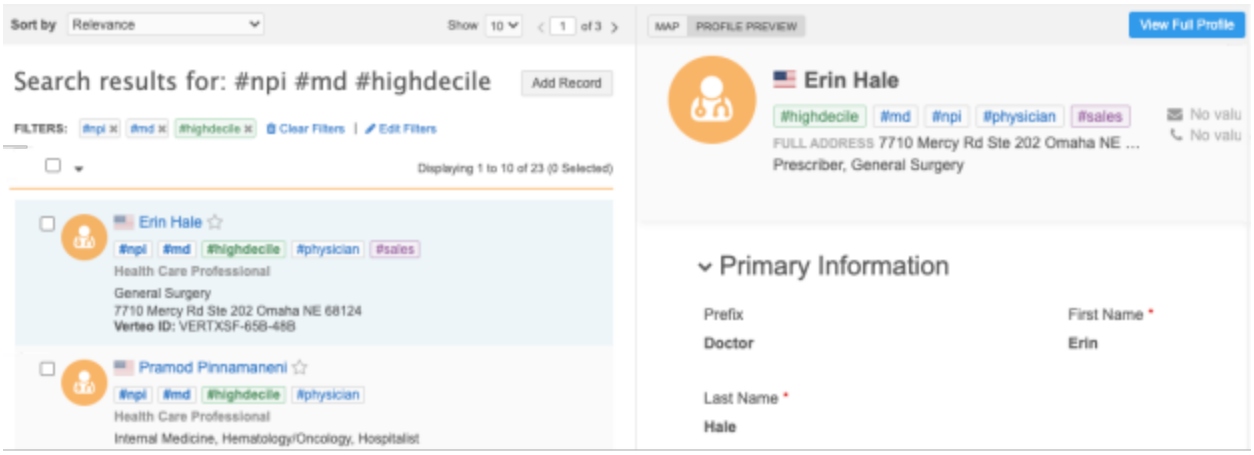
Hashtags are rule-based and are automatically calculated to display on record profiles that meet those rules. For example, the `#npi` hashtag displays on HCO and HCP records where the NPI field has a value (is not null).

Hashtags display in alphabetical order. They can display in different colors depending on how administrators have configured them.

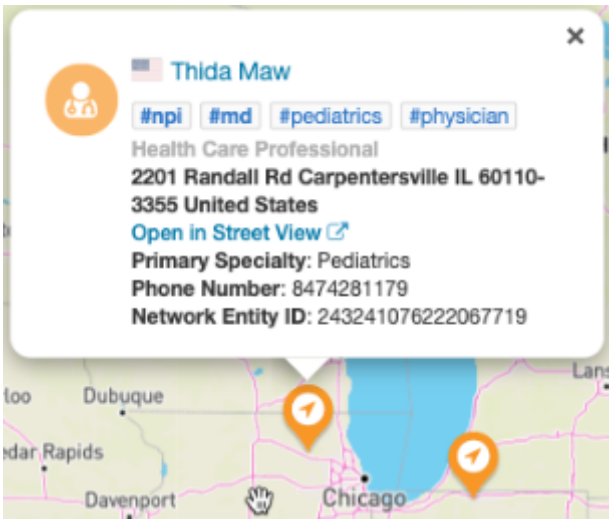
- Hover over the hashtag to review the tooltip.
- Click the hashtag to start a search for records with that hashtag.

Hashtags display in the following areas for profiles:

- Profile page
- Profile preview in search results

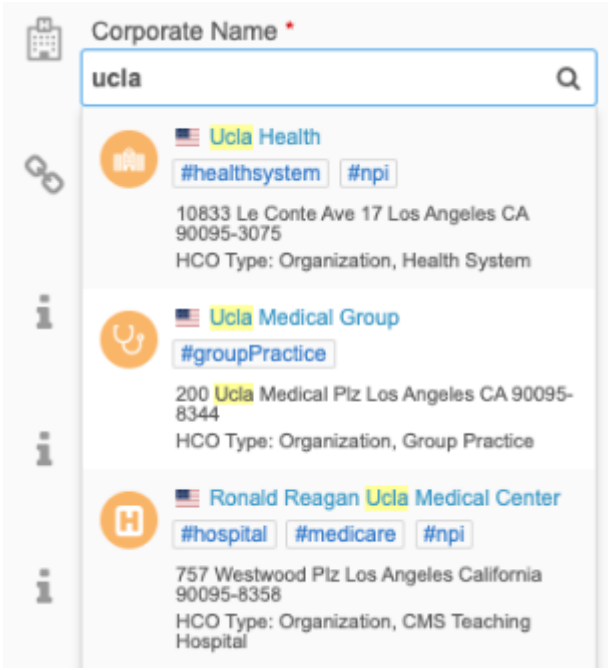


- Business cards on the search map



- New parent affiliation

  When you create a parent affiliation on a record profile, hashtags display in the **Corporate Name** field search results so you can easily identify the correct HCO.

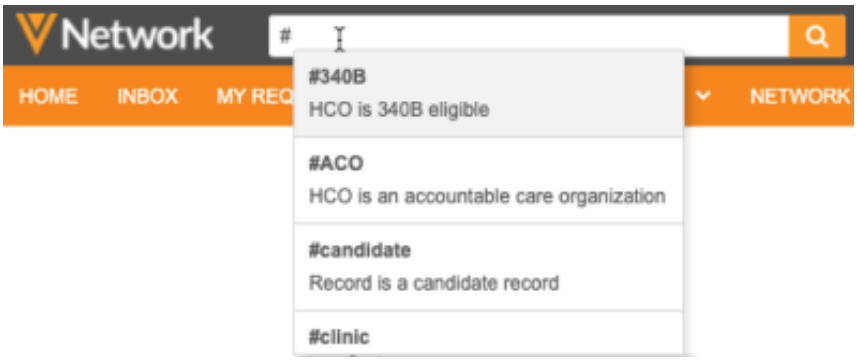


Search using hashtags

To search using hashtags:

1. On the Network menu bar, type the hash (**#**) symbol in the search bar.

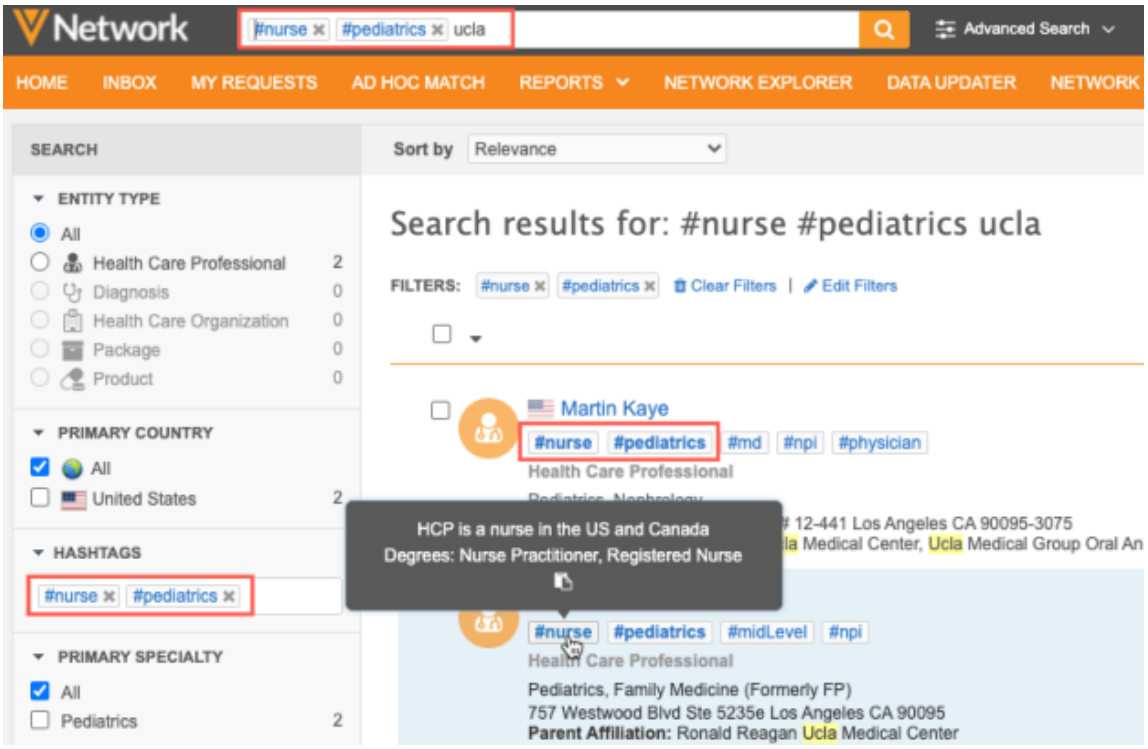
   A list displays the hashtags that are available according to the countries and entities that you have access to through your data visibility profile. The available hashtags are listed alphabetically and contain a description.



2. Scroll and select a hashtag or keep typing to find a specific hashtag. Choose one or more hashtags and include any text that you also want to filter on. Click the **Search** button.

   The search results display the records that apply to the hashtags and any search terms that you defined.

   Note: If you use more than one hashtags in your query, they are treated as an AND operator. For example, if your search query includes the **#nurse** and **#pediatrics** hashtags, only the records that meet the conditions of both hashtags will display. If you use hashtags that apply to the same field (for example, the **#nurse** and **#md** hashtags both apply to the Medical Degree field), it is treated as an OR operator; records that have a medical degree that is nursing related or a Doctor of Medicine will display.

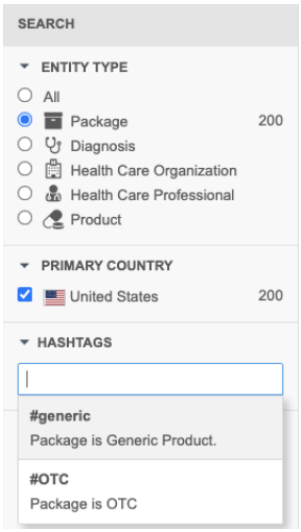


Hashtags display on the records and on the search results in alphabetical order. If you search for a hashtag, it displays first on the record results. Hover over a hashtag to view a tooltip. If the tooltip contains extra details; for example, the NPI ID number or degree name, click the **Copy** icon to copy the value to your clipboard.

If you click a hashtag on a record in the search results, it will start a new search for that hashtag.

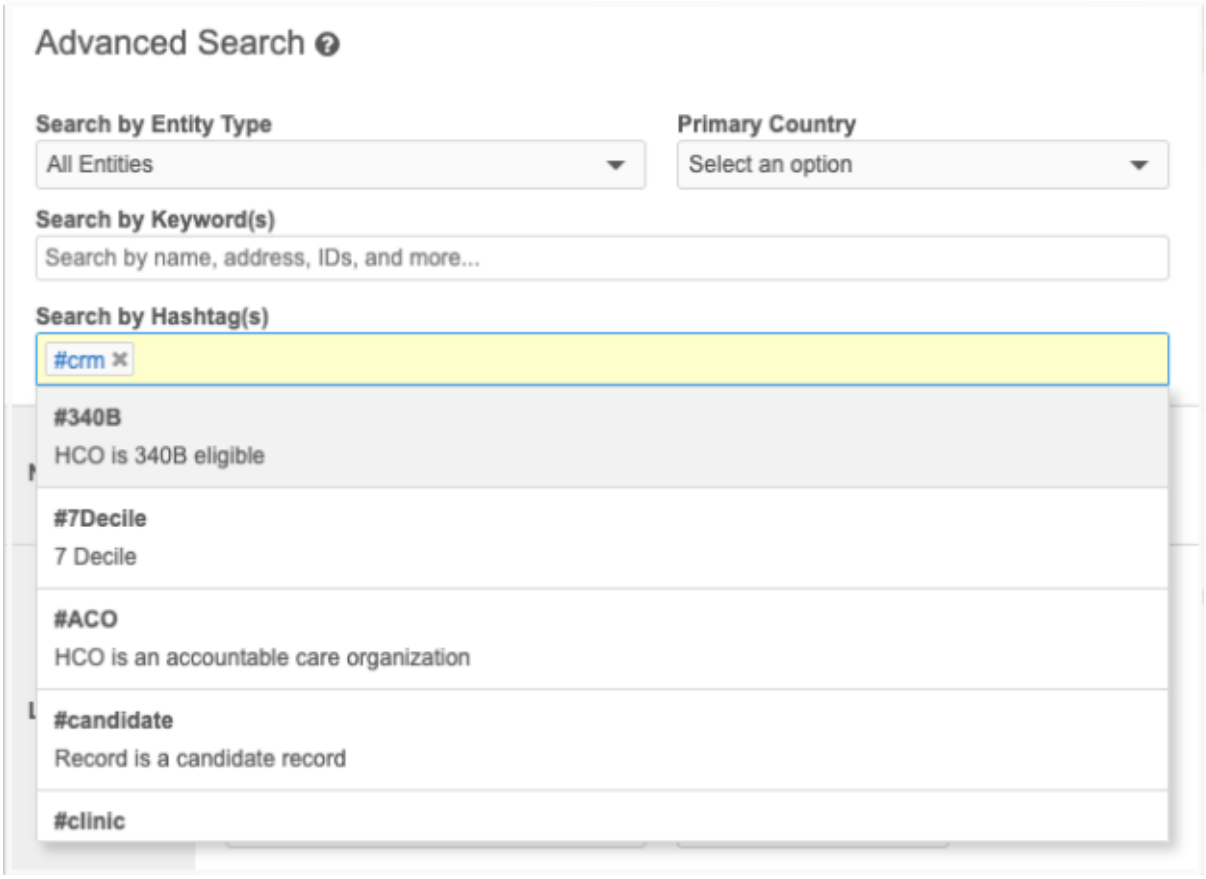
Using search filters

Use the **Search** panel to filter your search on **Entity Type** or **Country**. If you select a specific entity type, the available hashtags are filtered for that entity. For example, if you filter the results for the **Package** object, the hashtags that you can use are limited to that object.



Advanced Search

You can also use the Advanced Search form to search using hashtags. Use the **Search by Hashtags** field to enter the hashtags.



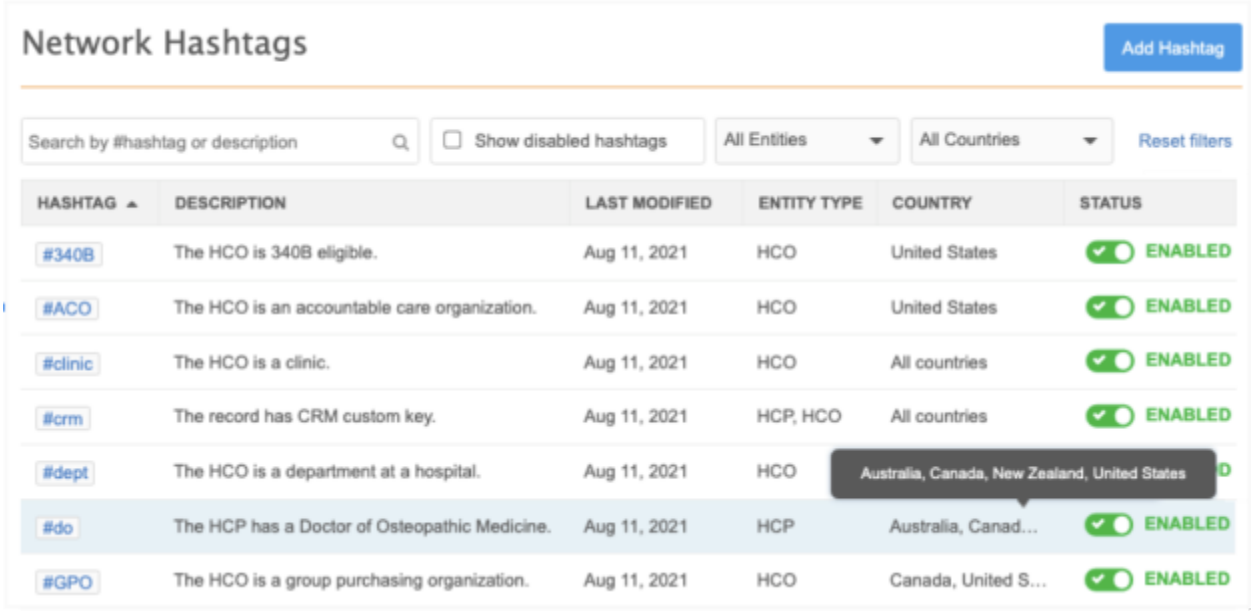
Available hashtags

Network provides several predefined hashtags that are enabled by default. Administrators can view and edit the configurations of the predefined hashtags.

- In the Admin console, click **Data Model > Network Hashtags**.

On the Network Hashtags page, the hashtags are listed alphabetically by default. Click the **Hashtag**, **Last Modified**, or **Status** column names to sort the list. You can also filter the list by entity type or country.

You can customize these hashtags for your own use.



Predefined hashtags

The following hashtags are available, depending on the countries defined in your Network instance.

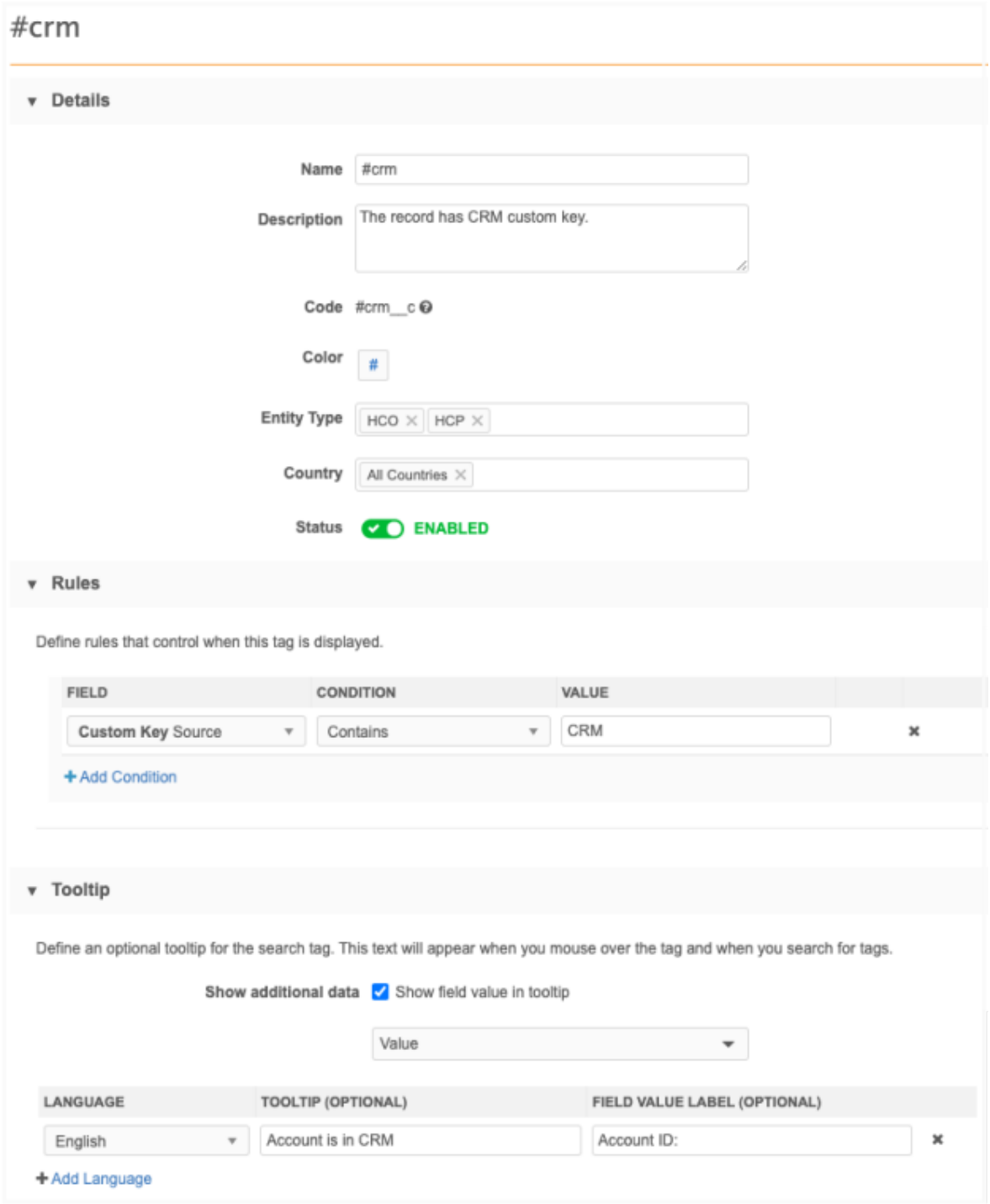
Hashtag	Entity	Country	Tooltip
#md	HCP	All countries	HCP has a Doctor of Medicine
#nurse	HCP	United States, Canada	HCP is a nurse in the US and Canada
#npi	HCP, HCO	United States	HCP or HCO has an NPI number
#crm	HCP, HCO	All countries	Account is in CRM
#candidate	HCP, HCO	All countries	Record is a candidate record
#hbp	HCP	All countries	HCP is a business professional
#marketaccess	HCP, HCO	Andorra, Austria, Belgium, Switzerland, Czech Republic, Germany, Denmark, Spain, Finland, France, Great Britain, Ireland, Iceland, Italy, Liechtenstein, Luxembourg, Monaco, Netherlands, Norway, Poland, Portugal, Sweden, Turkey	HCP or HCO assists in bringing a drug to market

Hashtag	Entity	Country	Tooltip
#gp	HCP	Andorra, Austria, Bosnia and Herzegovina, Belgium, Bulgaria, Switzerland, Czech Republic, Germany, Denmark, Spain, Finland, France, Great Britain, Croatia, Hungary, Ireland, Iceland, Italy, Liechtenstein, Luxembourg, Monaco, Netherlands, Norway, New Zealand, Poland, Portugal, Serbia, Sweden, Slovenia, Slovakia, Turkey	HCP is a general practitioner
#specialist	HCP	Andorra, Austria, Bosnia and Herzegovina, Bulgaria, Switzerland, Czech Republic, Germany, Spain, Great Britain, Croatia, Hungary, Ireland, Italy, Liechtenstein, Netherlands, Poland, Portugal, Serbia, Slovenia, Slovakia, Turkey	HCP is a specialist
#midLevel	HCP	United States, Canada	HCP is a mid-level
#infusion	HCO	United States	HCO has the capability to administer infusion drugs
#hospital	HCO	All countries	HCO is a hospital
#groupPractice	HCO	All countries	HCO is a group practice
#dept	HCO	All countries	HCO is a department at the hospital
#340B	HCO	United States	HCO is 340B eligible
#medicare	HCO	United States	HCO accepts Medicare
#ACO	HCO	United States	HCO is an accountable care organization
#physician	HCP	United States, Canada	HCP is a physician
#pediatrics	HCP, HCO	All countries	Record specializes in pediatrics
#do	HCP	United States, Canada, New Zealand, Australia	HCP has a Doctor of Osteopathic Medicine
#clinic	HCO	All countries	HCO is a clinic
#healthsystem	HCO	United States, Canada	HCO is a health system
#kaiser	HCO	United States	Record is associated to Kaiser Permanente
#GPO	HCO	United States, Canada	HCO is a group purchasing organization
#pharmacy	HCO	All countries	HCO is a pharmacy

Hashtag	Entity	Country	Tooltip
#dr	HCP	Mexico, Nicaragua, Colombia, El Salvador, Panama, Dominican Republic, Argentina, Honduras, Guatemala, Costa Rica, Chile, Canada, Monaco, Luxembourg, Liechtenstein, Hungary, Greece, Poland, Bulgaria, Republic of Moldova, Ireland, France, Switzerland, Sweden, Finland, Netherlands, Turkey, Slovakia, Romania, Great Britain, Belgium, Spain, Italy, Portugal, Andorra, Austria, Kazakhstan, Czech Republic, Belarus, Georgia, Serbia, Germany, Norway, Denmark, Russia, Ukraine, China, New Zealand, Australia, Singapore	HCP is a doctor
#jrdr	HCP	Great Britain	HCP is a junior doctor in the UK
#srdr	HCP	Great Britain	HCP is a senior doctor in the UK

Select a hashtag from the list to view or edit the details.

Example hashtag configuration: #crm



CRM hashtag

Customers that use a custom key for CRM that does not contain the word **CRM** will need to update the predefined `#crm` hashtag. For example, if your CRM custom key source value is `SF` (`SF:Account:0013s000015ebyWAAQ`), update the hashtag rule so the **Value** field is `SF`.

Create a hashtag

Administrators can create hashtags for their Network instance.

Example

We have a custom field to record HCP Decile ratings; an indication of whether an HCP is a high or low volume prescriber. We want to create a hashtag to flag a record as **High Decile** so sales reps can easily find these records.

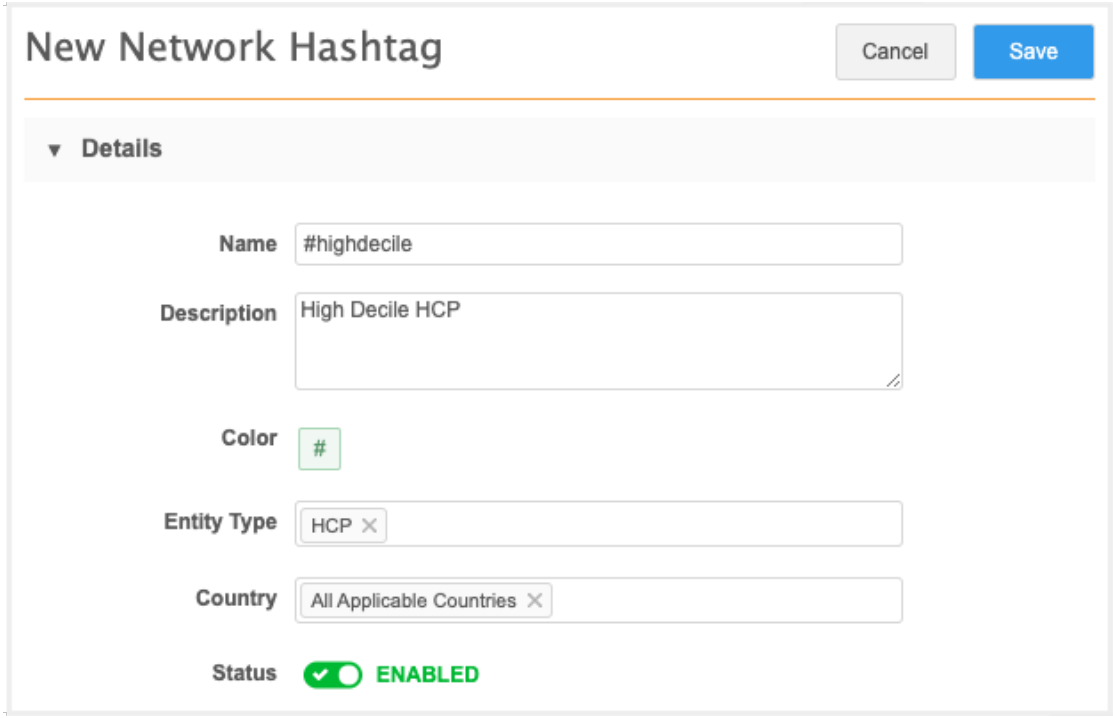
To create a hashtag:

1. On the Network Hashtags page, click **Add Hashtag**.

   The New Network Hashtag page displays.

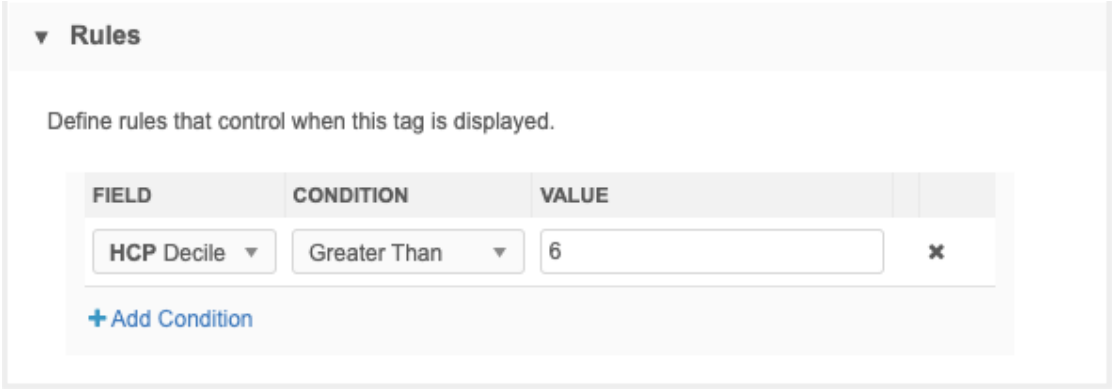
2. In the **Details** section, provide the following information:
   - **Name** - Type a name for the hashtag. This is the name that displays in search and on the profile page. Hashtag names are always prefixed with the hash **#** symbol.

     Names are limited to uppercase and lowercase letters, numbers, underscores (_), and hyphens (-). Names cannot contain spaces.
   - **Description** - Type a meaningful description. This displays for administrators in the Network Hashtag list; it does not display to users.
   - **Color** - By default, hashtags have a gray background with blue text. Choose a different background color for hashtags that you want to be highlighted. Six colors are available.
   - **Entity Type** - Choose the entity type for the hashtag. The list contains the enabled main objects in your Network instance that you have access to.
   - **Country** - Choose the country that the hashtag applies to. The list contains the countries that you have access to through your data visibility profiles. Choose **All Applicable Countries** to apply the hashtag to all countries that you have data for in your Network instance.
   - **Status** - The hashtag is enabled by default. Toggle the button to disable it if you don't want it applied to records as soon as you save the configuration.



3. Use the **Rules** section to control where the hashtag displays.

   For this example, we'll create a rule based on our Decile custom field. The `#highdecile` hashtag will display on HCP records only where the value of the Decile field is greater than six.



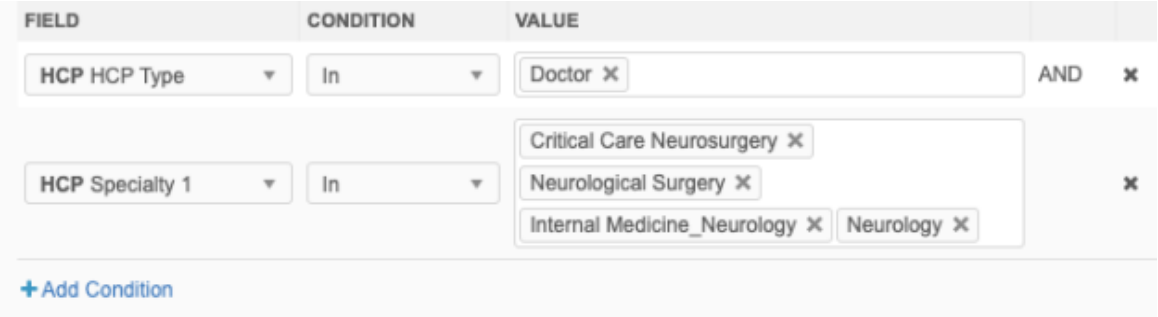
- **Field** - Choose the field. The list contains the fields that apply to the main objects you defined for the **Entity Type**.

  Rules can be created for custom key fields (source only). They cannot be created for sub-object fields.

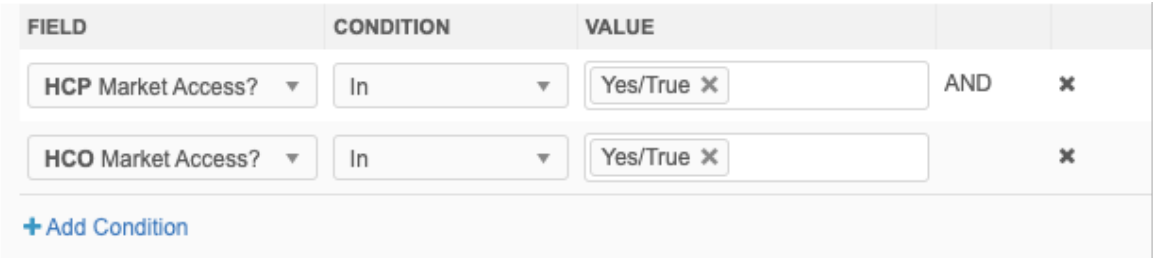
- **Condition** - Choose the condition to use. The available conditions depend on the selected field type. For example, text fields support the **Equals**, **Contains**, and **Is Not Null** conditions; integer number fields support the **Greater Than**, **Less Than**, **Between**, and **Equals** conditions.
- **Value** - Define the field value.

Click **Add Condition** to create another condition. Multiple conditions are treated as AND operators.

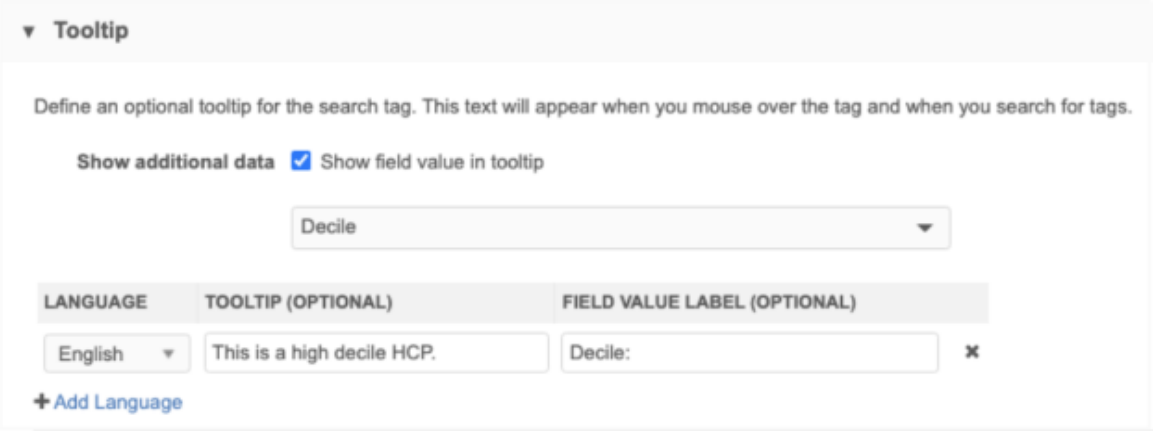
For example, if you want sales reps to easily find new targets for doctors that specialize in neurology, you can add multiple conditions to the rule; only HCP records that have the HCP type Doctor AND that have specific values in the Specialty 1 field will have the hashtag applied.



If the hashtag applies to multiple entity types, the condition for each entity type is treated individually.



4. (Optional) In the **Tooltip** section, you can define a description for the hashtag. You can also include additional data to display when users hover over the hashtag.

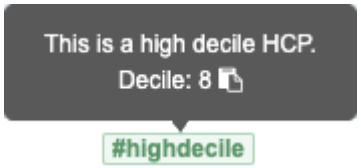


- **Show additional data** - Select this option if you want to display a field value in the tooltip. Expand the list to choose the field to display the value. Fields for the objects you have defined for the **Entity Type** display.

For example, you can choose the `Decile` field to add the HCP's decile rating on the tooltip.

Examples

Tooltip with additional data



Tooltip with no additional data

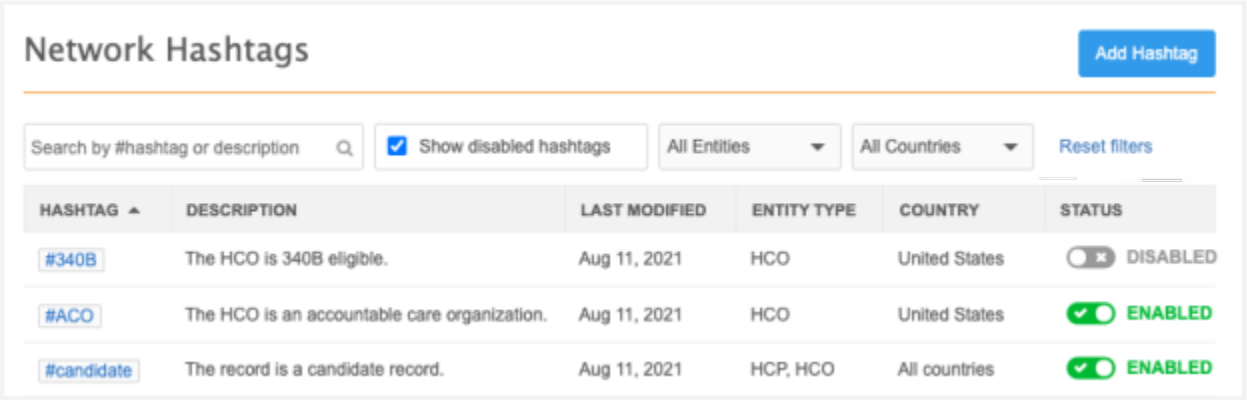
- **Language** - Select the language for the tooltip.
- **Tooltip** - Type a description of the hashtag to display to users when they hover over the tooltip.
- **Field Value Label** - If you chose **Show additional data**, type a label to describe the field value that will display. For example, type `Decile:`. The field value will be added after the label in the tooltip.

5. **Save** your changes.

If the hashtag is enabled it will be immediately applied to records that meet the rules. Users can now search for the hashtag and see it on record profiles.

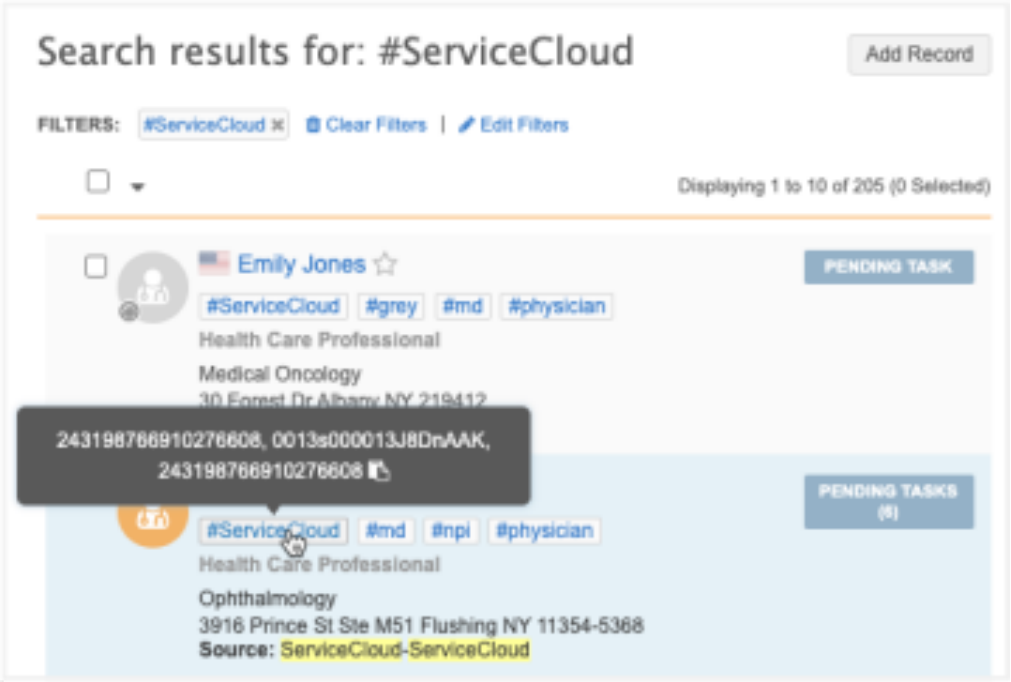
Disabling hashtags

Predefined hashtags are enabled by default. Predefined and custom hashtags can be disabled from the Network Hashtags page. In the hashtag row, toggle the icon in the **Status** column or click the hashtag to open the configuration page to disable it.



Hashtags for custom keys

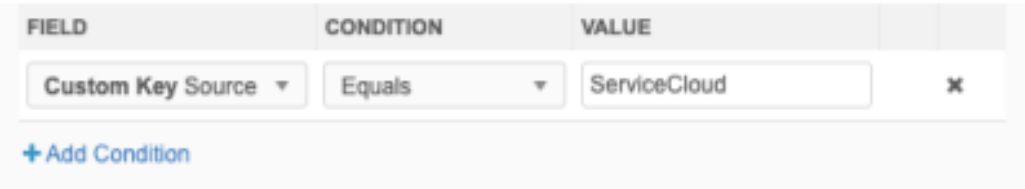
Hashtags can be used to easily find records from a specific source. Previously, users had to search for custom keys. Now you can create a hashtag for a specific source so users can filter their search on that source.



Custom key hashtag rules

Hashtags rules can be created only for the Source field for custom keys. Only custom keys that are active are considered for searching and displaying hashtags.

When the rule condition is **Equals**, the rule is applied to custom key sources that contain separators (for example, a hyphen (-)). For example, searching for the `#ServiceCloud` hashtag will find the `ServiceCloud-ServiceCloud` sources.



Multiple custom key values

If a record contains multiple custom keys for that source, up to three values will display on the tooltip. If there are more than three values, **+ Others** displays after the third value. Open the record to review all of the custom keys.

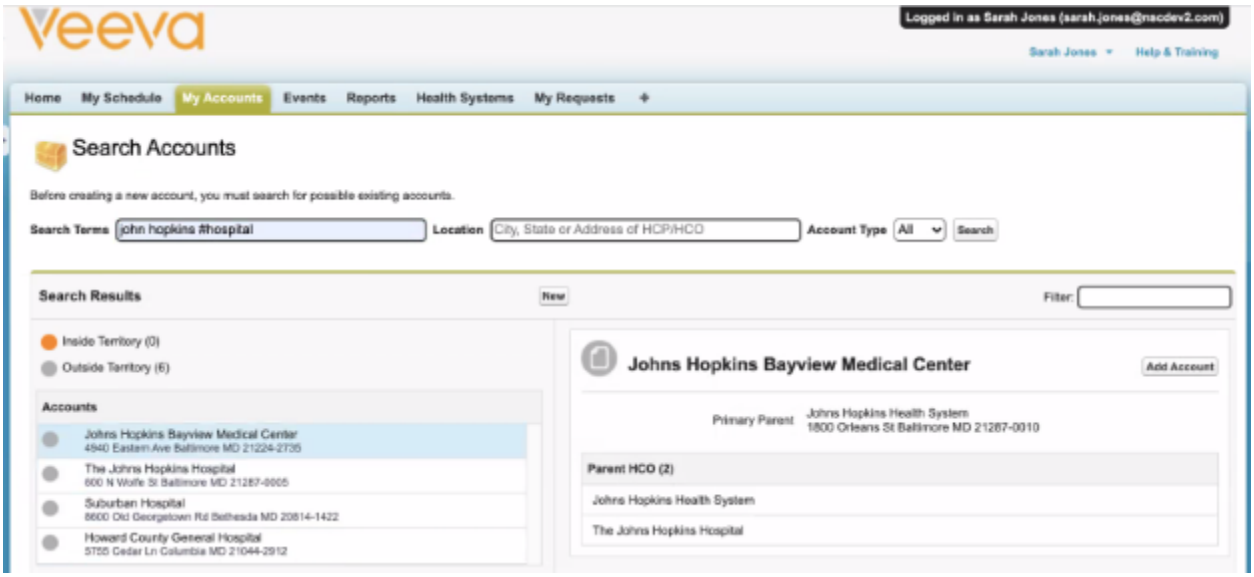
Find Suspect Match

When Data Stewards use the **Find Suspect Match** feature on the Profile page, hashtags display in the search results to help identify a relevant match. Hashtags do not display on the suspect match page.

Veeva CRM

Veeva CRM users can use hashtags to search in Network Account Search. For example, if you search for John Hopkins, the search results will contain HCPs and HCO departments making it difficult to find the relevant record. Now, you can search using the `#hospital` hashtag so you can filter on the relevant records.

Note: Hashtags can be used but they do not display in the search results or on the account.

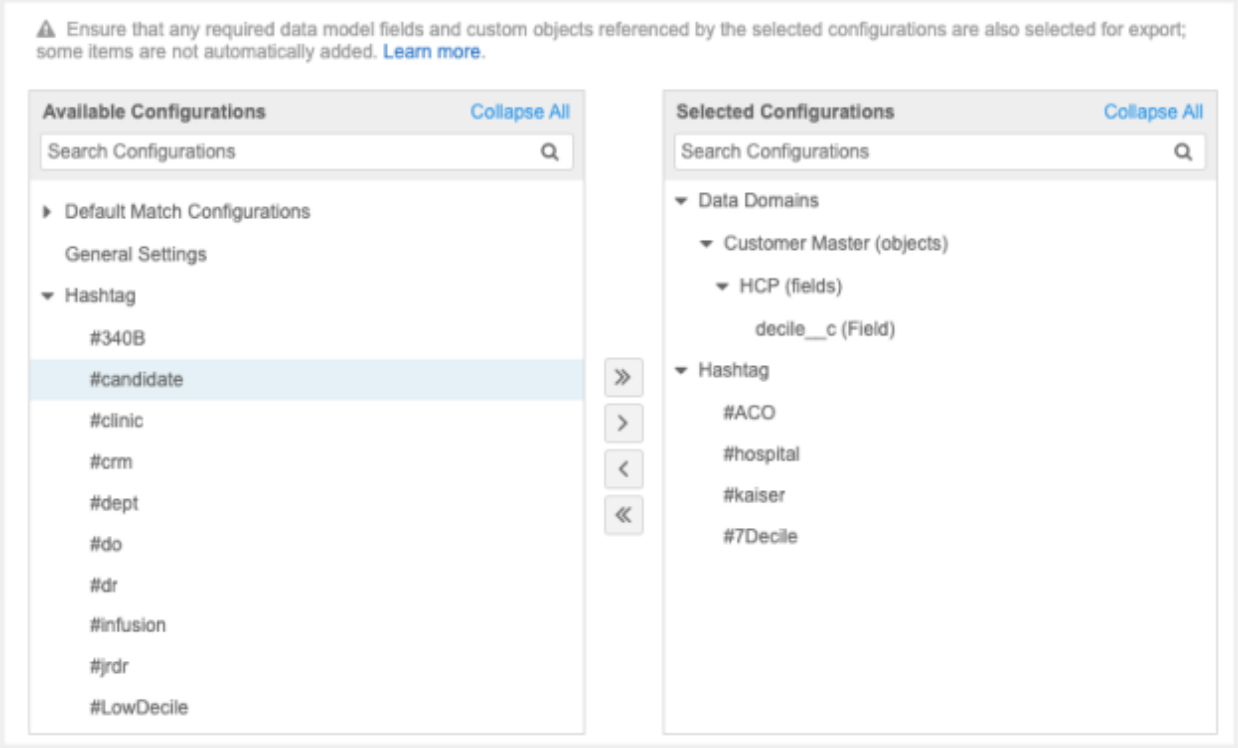


Using hashtags for Network Account Search is available for CRM on Online, iPad, and Windows.

Tip: Veeva CRM administrators can update the description on the Search Accounts page to suggest searching for specific hashtags. The description can be changed by updating the BEFORE_CREATE Veeva message. For more details, see Veeva Messages in the *Veeva CRM Online Help*.

Exporting configurations

Hashtags can be exported to a target environment. In the export package (**Settings > Configuration Export**), move the **Hashtags** section or individual hashtags into the **Selected Configurations** panel. If the hashtag contains dependencies; for example, the rule uses a custom field, the dependencies will be added to the panel also.



Auditing

Updates to hashtags are logged in the **System Audit History** (**Logs**).

Using hashtags in the Network API

Integration users can search for records using hashtags from the Search API. Use hashtags in the **q** parameter.

Example request

```
GET
https://my.veevanetwork.com/api/v21.0/search?supplemental=NONE&limit=10&q=#
npi&#nurse&ucla
```

Depending on which REST client you use, you might have to URL encode the hash (#) symbol as `%23`.

Example

```
GET
https://my.veevanetwork.com/api/v21.0/search?supplemental=NONE&limit=10&q=%
23npi&%23nurse&ucla
```

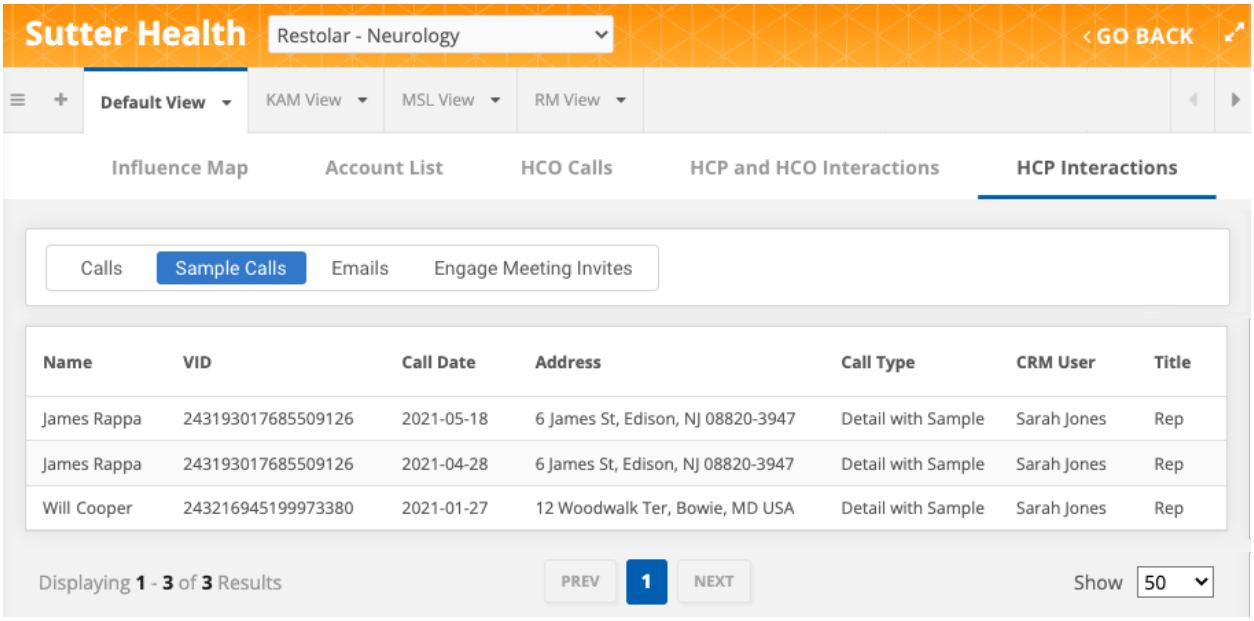
Note: Candidate records are excluded from the Search API, so the `#candidate` hashtag cannot be used.

Data components

AFFILIATION WIDGET TABS

21R3

You can now view external data for multiple HCPs and HCOs in the Affiliation widget. In version 21R2.1, support for data components in the Affiliation widget was introduced, but the data was limited to a single profile. Now, using tabs on the Influence Map, you can view data components that display data for multiple accounts. For example, you can see emails sent to all HCPs from Veeva CRM or view recent calls for all HCPs.



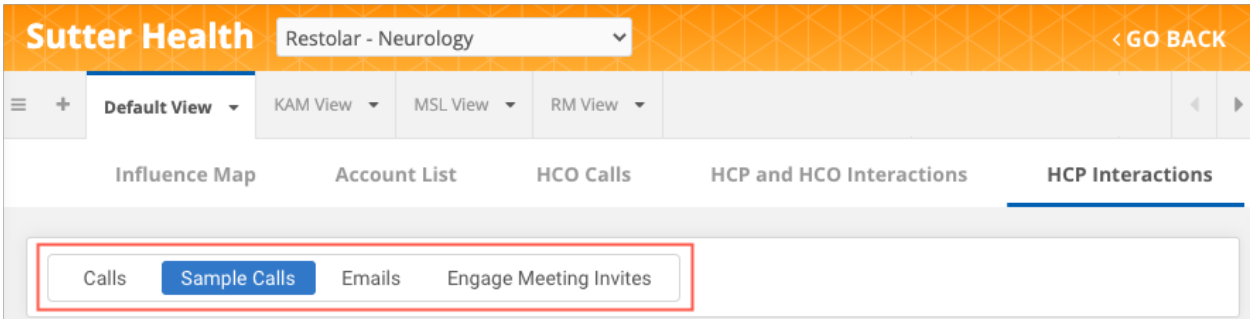
This feature is enabled by default in your Network instance. Administrators can create the data components to display on Affiliation widget tabs.

Data component tabs

Data component tabs display alphabetically after the **Influence Map** and **Account List** tabs in the Affiliation widget. Tabs display if you have permission to view them through your assigned user groups.

- Click the tab to display the data component in the main pane.

Each data component can contain multiple queries. Within the data component, click the tabs to view specific data for the accounts.

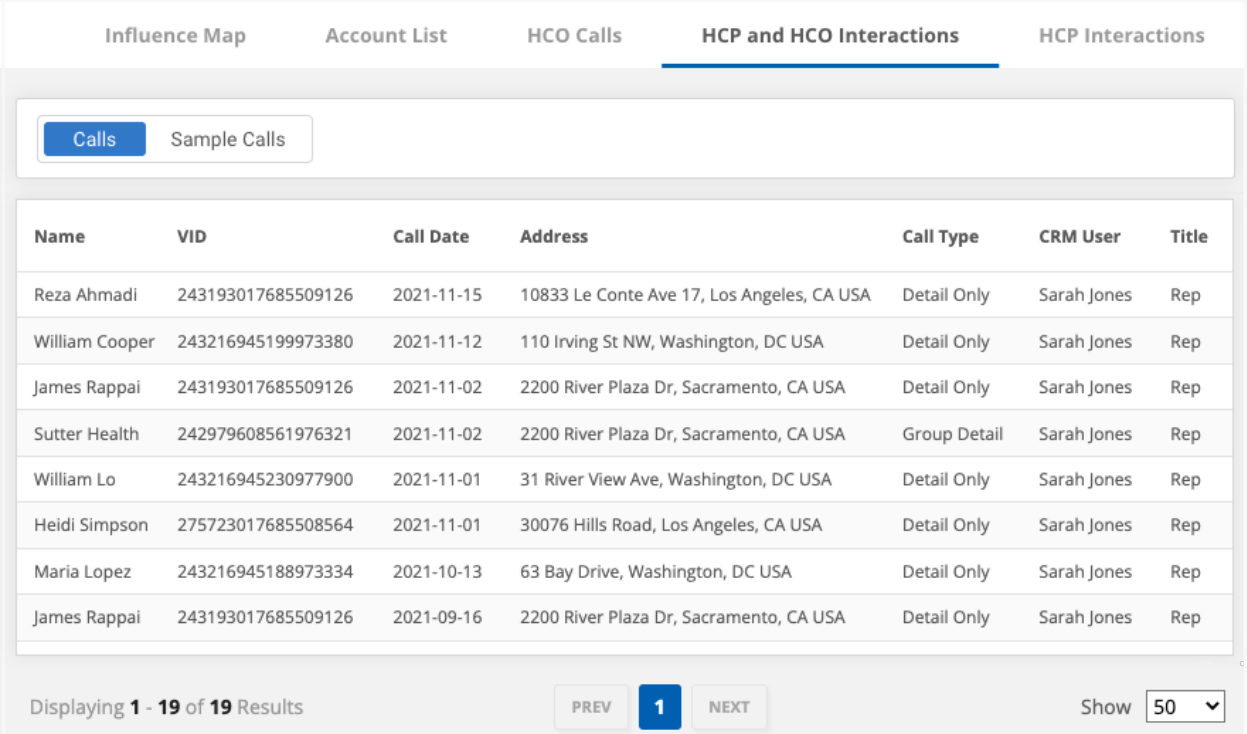


The data updates as you make changes to the Influence Map. For example, if you remove an account, the related data is removed in the data component. If you add an account, the data component query refreshes to include data for that account.

Navigation

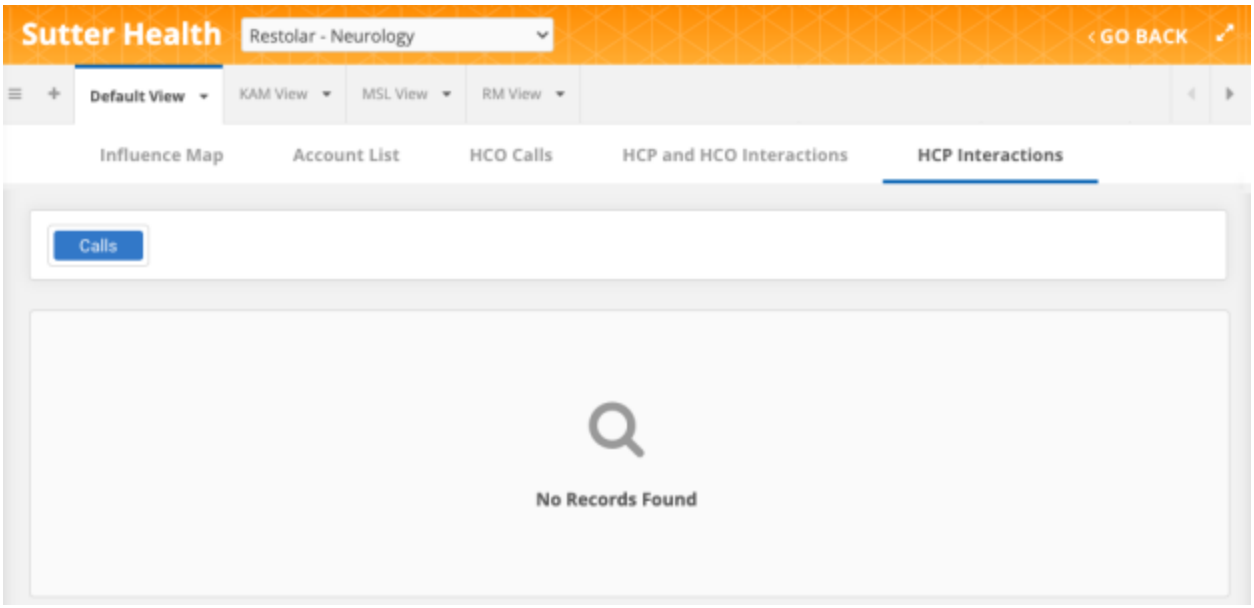
Each component displays in a table view to accommodate the data for multiple accounts. By default, 50 rows display, but you can customize this using the **Show** list. Use the **Prev** and **Next** buttons to page through the results.

Each data component can contain results for a maximum of 150 accounts. If there are more accounts on the Influence Map, only 150 results are returned in the data component for the specified object type and country.



Tip: The table cannot be sorted from the Affiliation widget, but administrators can pre-sort the table using the ORDER BY function in the data component query.

If there is no data for a component, a **No Records Found** message displays.



If the warning message, **Something Went Wrong** displays, there could be a query syntax error or invalid credentials. Contact your administrator.

Data component administration

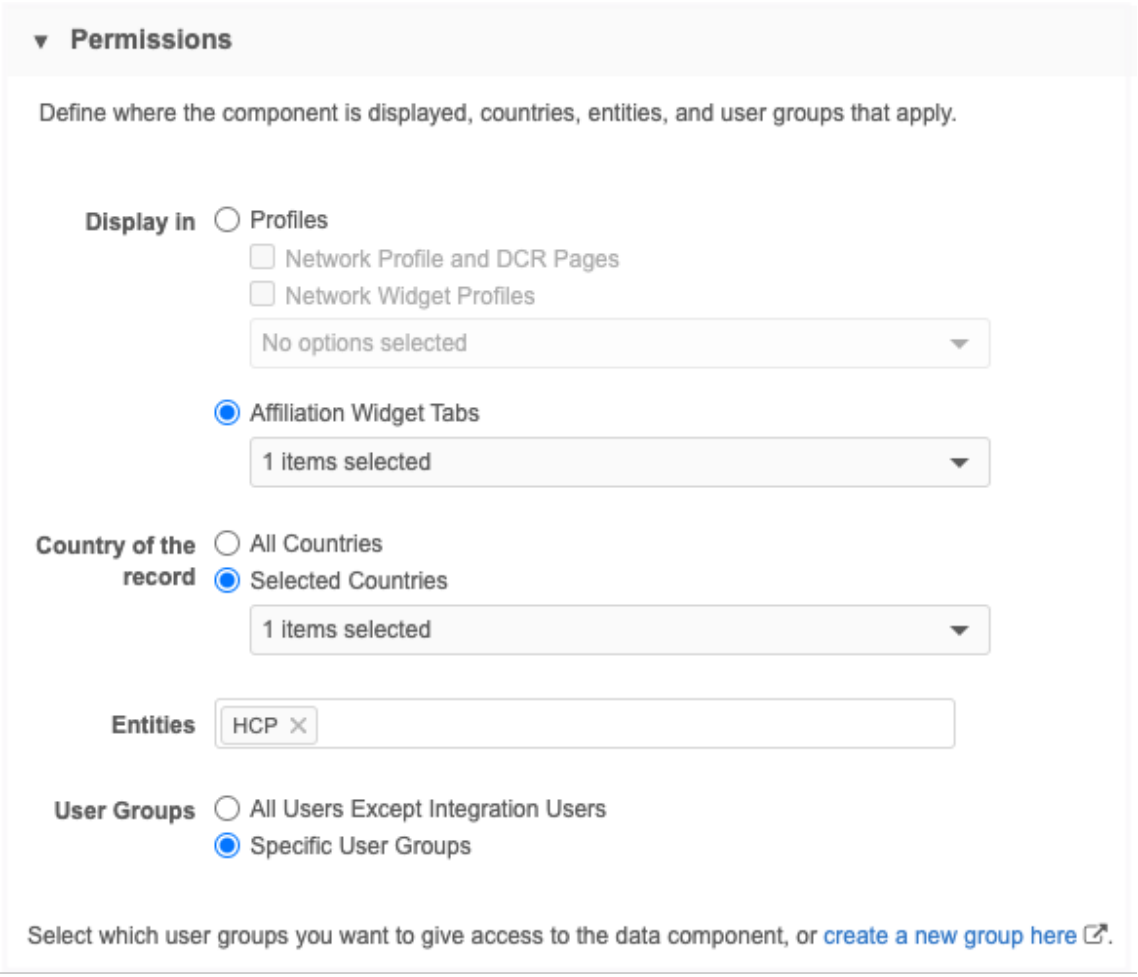
The data component configuration (**Widgets & Portal > Data Components**) is updated to support Affiliation widget tabs that return information for multiple accounts.

Permissions

Administrators can determine where each data component displays. A new setting has been added for Affiliation widget tabs.

Choose one of the following options:

- **Profiles** - Display in Network (Profile and DCR pages) and in Network widget profiles. Choose this option if you want the data component to display data for a single account.
  This is selected by default for existing and new data components. The settings that existing data components had selected before this release will be preserved.
  If you select **Network Widget Profiles**, at least one widget must be selected.
- **Affiliation Widget Tabs** - Display on the tabs in the Affiliation widget only. Choose this option if you want to display data for multiple accounts.
  If you select this option, at least one widget must be selected.



The same Affiliation widget can have data components that display on both profiles and tabs, but the data components must be configured separately. For example, you might have a component for Veeva Engage Meetings that will display when you open an HCP profile in the widget, but you also want a data component to display Veeva CRM calls for all HCPs to display in a tab on the Influence Map.

The results that display for each query are based on the following settings:

- **Country of the record** - **All Countries** is selected by default. You can choose **Selected Countries** and pick the countries from the list. The list includes all of the countries available in your Network instance.
- **Entities** - Specify **HCO**, **HCP**, or both.
  Custom objects might display in the list, but they are not supported for the Network widgets.

For example, if this data component is for HCP entities in the United States, when users click the tab in the Affiliation widget, only data for HCPs in the US display.

The **User Group** setting determines the data components that display for each user. If the user does not belong to a user group that has access to the data component, the data component does not display.

The data component tab displays in the Affiliation widget if the following settings are true:

- The data component is enabled.
- **Affiliation Widget Tabs** is selected and the specific widget is defined.
- The user has access to the data component through their user group.

Queries for multiple accounts

When you create a data component, the SOQL query uses a dynamic variable to know which data to display when a user clicks the tab. The syntax and variable are different if you are creating data components for multiple accounts to use in the Affiliation widget.

Multiple accounts

Use the qset variable

When you create a data component for multiple accounts (or sets of data), the **qset** variable uses the IN operator and the following format:

```
in :qset(<Network field name>)
```

Note: Single quotes (') and parentheses () are not required in the query with this syntax. Network automatically applies these when the query runs.

Example

If the variable is `:qset(vid__v)`, Network replaces the variable with a comma separated list of Veeva IDs, in single quotes and parentheses, when a user clicks the data component tab in the Affiliation widget.

```
SELECT Call_Date_vod__c, Address_vod__c, Call_Type_vod__c, CreatedBy.Name
 FROM Call2_vod__c
 WHERE account_vod__r.Network_External_Id__c in ('243154001456840312',
'243187301430840313', '243154001430840322', '243774001430840404',
'243154001430842711')
 ORDER BY call_date_vod__c desc
```

The VIDs included in the query are based on the defined permissions for countries and entities.

Use the set variable

You can also use the **set** variable for multiple account data:

```
in :set(<Network field name>)
```

This variable is typically used for a text field. The single quotes (') are not automatically applied when the query runs with this variable syntax. The parentheses are not required in the query; they are automatically applied when the query is run.

Single accounts

Use this variable to return data for a single account. Affiliation widget tabs are intended for data for multiple accounts, so this variable would not typically be used in these SOQL queries.

The single account query can use these operators and the following formats:

Equals (=) operator

```
= ':<field_name>'
```

Note that single quotes (') are required around the variable.

IN operator

```
IN(':<field_name>')
```

Note that single quotes (') and parentheses () are required around the variable.

Example

If the variable is `':vid__v'`, Network replaces the variable with the Veeva ID when a user clicks the **Data Component** button on an account.

```
SELECT name, id, personemail, recordtype.name, specialty_1_vod__c,
primary_parent_vod__r.Name, customer_master_status_vod__c from Account
 WHERE Network_External_Id__c = '243154001430840322'
```

If you use the single variable for Affiliation widget tabs and it's applied to HCOs, the health system VID is used for the query. If you use the single variable and the data component is applied to HCPs only, the **Something Went Wrong** message displays.

Component builder considerations

When you create a data component for the Affiliation widget tabs, consider the following for the **Component Builder** section:

- **View Type** - The type must be **Table View**. The **Details View** applies to components that display single profiles only.
- **Sample Queries** - There are no sample queries in the list that return multiple accounts. See the "Sample Queries" section below for queries that you can use.
- **Test Queries** - Adding multiple Veeva IDs (VIDs) to the dialog is not supported. The queries must be tested in your Affiliation widget.
- **Preview Component** - The preview is not supported for the set variables.

Sample queries

Use these sample queries to display data for multiple accounts in the Affiliation widget tab data components.

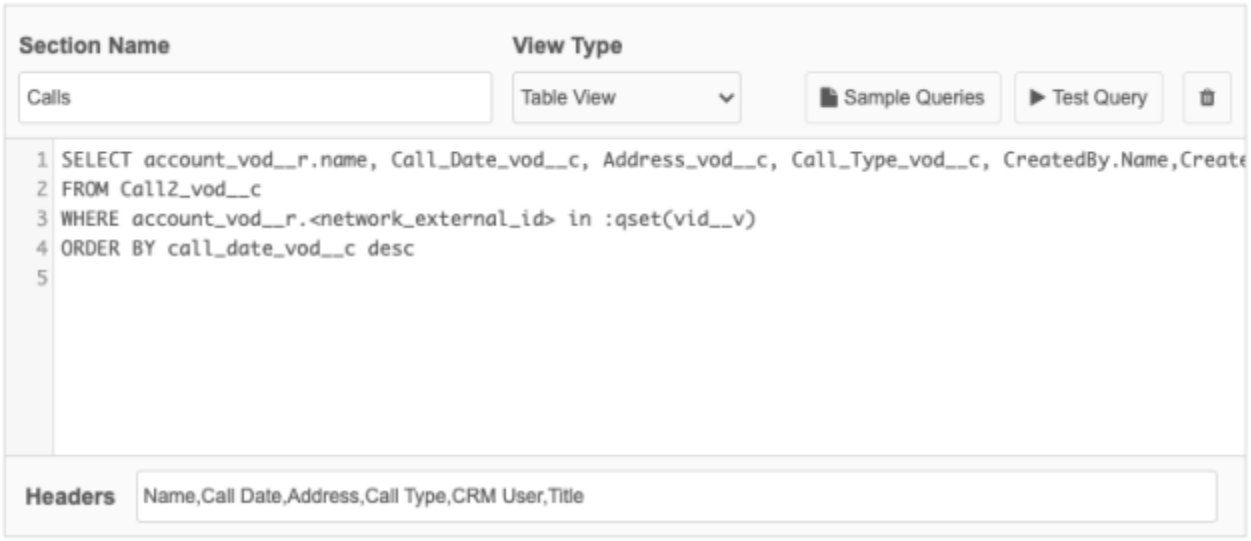
Sample query 1 - Calls

Description: Latest calls for accounts on the Influence Map.

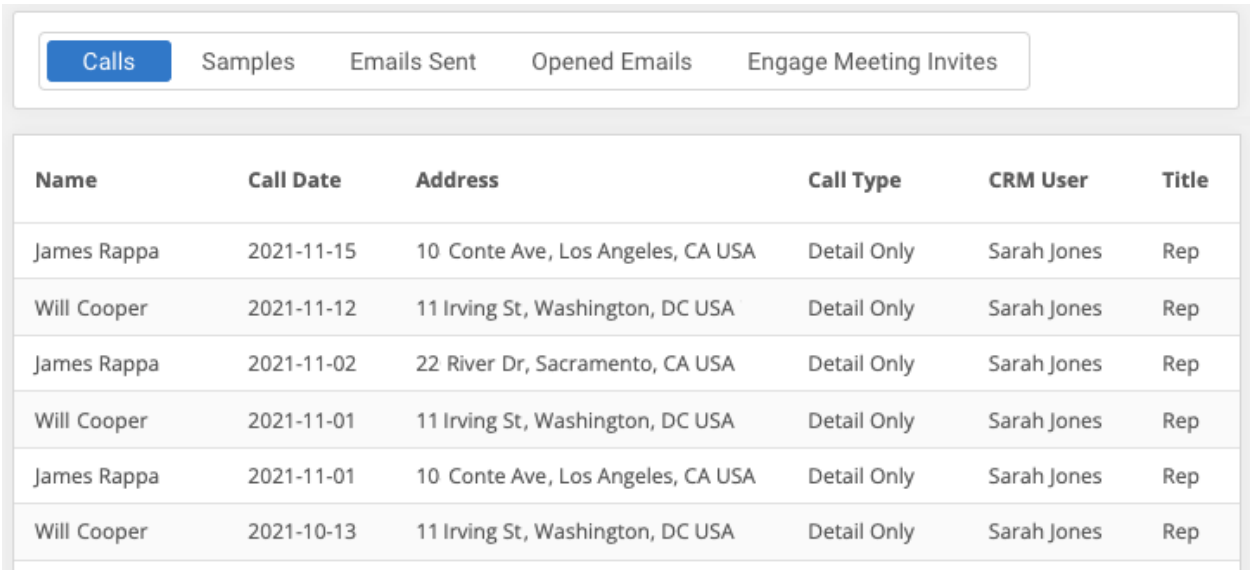
Query

```
SELECT account_vod__r.name, Call_Date_vod__c, Address_vod__c,
Call_Type_vod__c, CreatedBy.Name,CreatedBy.Title
 FROM Call2_vod__c
 WHERE account_vod__r.<network_external_id> in :qset(vid__v)
 ORDER BY call_date_vod__c desc
```

Headers: Name,Call Date,Address,Call Type,CRM User,Title



Example results



Name	Call Date	Address	Call Type	CRM User	Title
James Rappa	2021-11-15	10 Conte Ave, Los Angeles, CA USA	Detail Only	Sarah Jones	Rep
Will Cooper	2021-11-12	11 Irving St, Washington, DC USA	Detail Only	Sarah Jones	Rep
James Rappa	2021-11-02	22 River Dr, Sacramento, CA USA	Detail Only	Sarah Jones	Rep
Will Cooper	2021-11-01	11 Irving St, Washington, DC USA	Detail Only	Sarah Jones	Rep
James Rappa	2021-11-01	10 Conte Ave, Los Angeles, CA USA	Detail Only	Sarah Jones	Rep
Will Cooper	2021-10-13	11 Irving St, Washington, DC USA	Detail Only	Sarah Jones	Rep

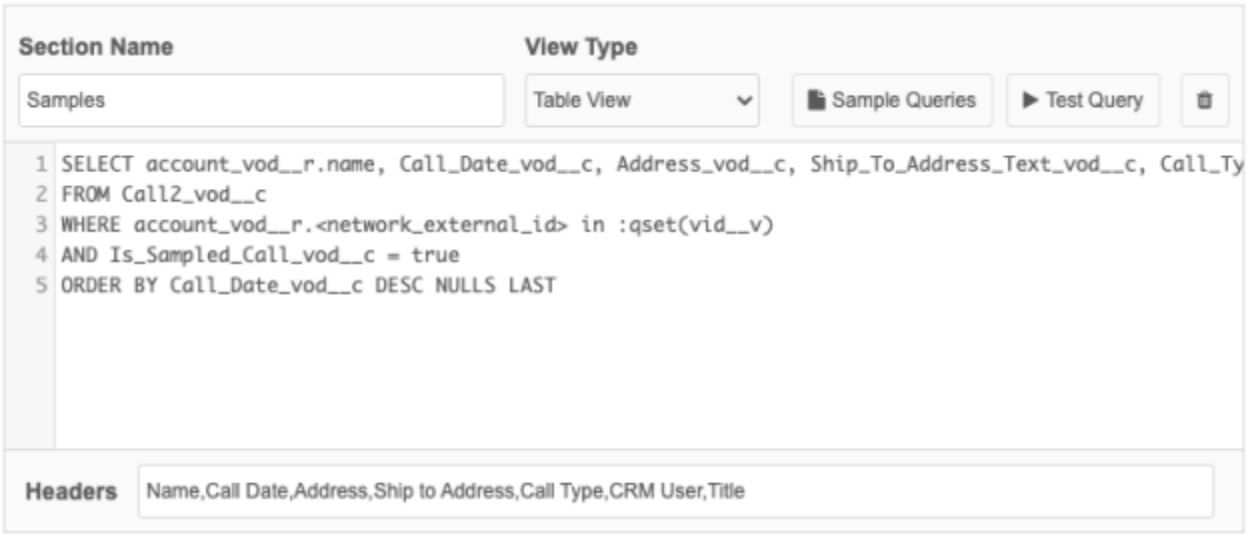
Sample query 2 - Samples

Description: Latest sample calls for accounts on the influence map.

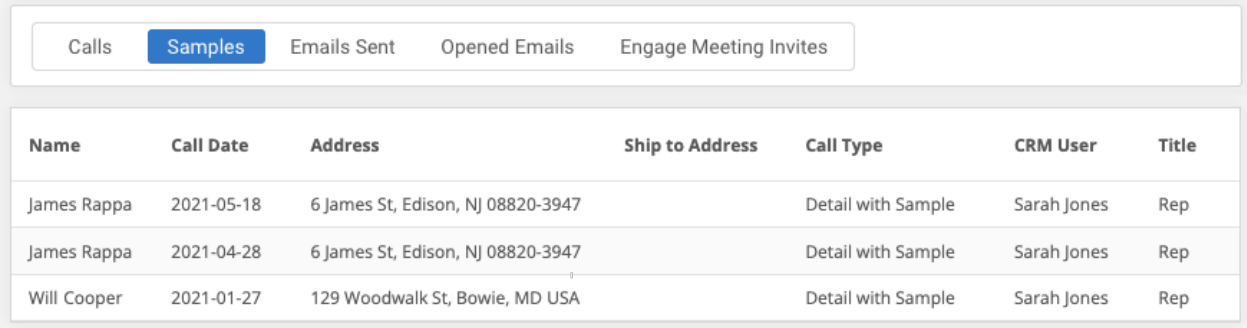
Query

```
SELECT account_vod__r.name, Call_Date_vod__c, Address_vod__c,
Ship_To_Address_Text_vod__c, Call_Type_vod__c,
CreatedBy.Name,CreatedBy.Title
 FROM Call2_vod__c
 WHERE account_vod__r.<network_external_id> in :qset(vid__v)
 AND Is_Sampled_Call_vod__c = true
 ORDER BY Call_Date_vod__c DESC NULLS LAST
```

Headers: Name,Call Date,Address,Ship to Address,Call Type,CRM User,Title



Example results



Name	Call Date	Address	Ship to Address	Call Type	CRM User	Title
James Rappa	2021-05-18	6 James St, Edison, NJ 08820-3947		Detail with Sample	Sarah Jones	Rep
James Rappa	2021-04-28	6 James St, Edison, NJ 08820-3947		Detail with Sample	Sarah Jones	Rep
Will Cooper	2021-01-27	129 Woodwalk St, Bowie, MD USA		Detail with Sample	Sarah Jones	Rep

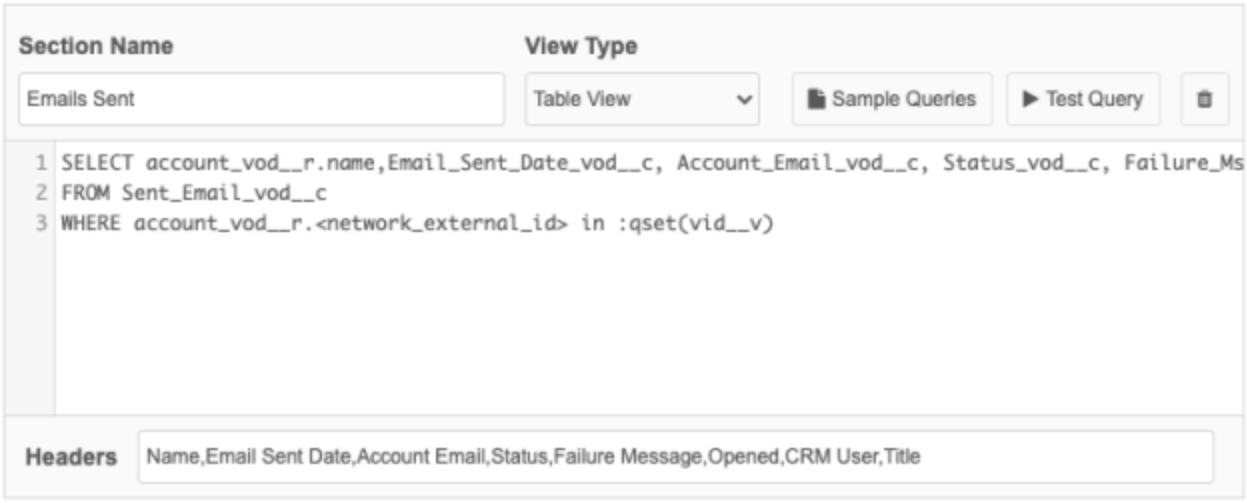
Sample 3 - Emails Sent

Description: Approved email details for accounts on the influence map.

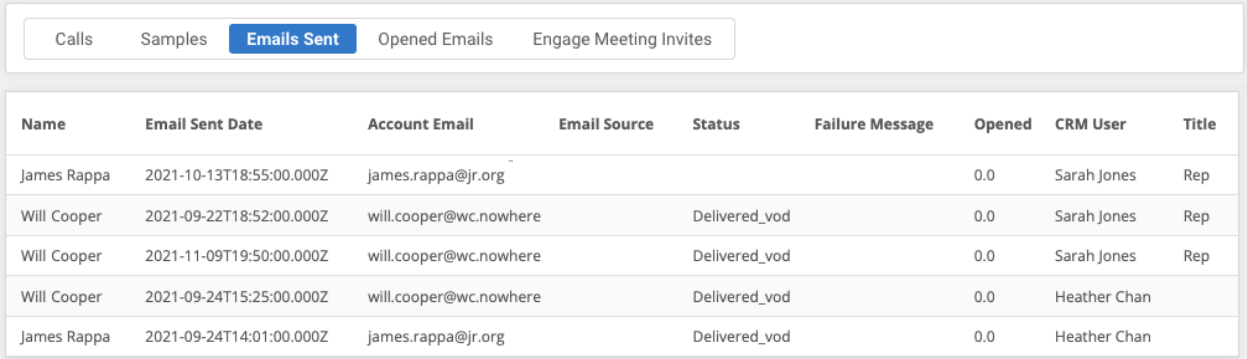
Query

```
SELECT account_vod__r.name,Email_Sent_Date_vod__c, Account_Email_vod__c,
Status_vod__c, Failure_Msg_vod__c, Opened_vod__c, CreatedBy.Name,
CreatedBy.Title
 FROM Sent_Email_vod__c
 WHERE account_vod__r.<network_external_id> in :qset(vid__v)
```

Headers: Name,Email Sent Date,Account Email,Status,Failure Message,Opened,CRM User,Title



Example results



Name	Email Sent Date	Account Email	Email Source	Status	Failure Message	Opened	CRM User	Title
James Rappa	2021-10-13T18:55:00.000Z	james.rappa@jr.org				0.0	Sarah Jones	Rep
Will Cooper	2021-09-22T18:52:00.000Z	will.cooper@wc.nowhere		Delivered_vod		0.0	Sarah Jones	Rep
Will Cooper	2021-11-09T19:50:00.000Z	will.cooper@wc.nowhere		Delivered_vod		0.0	Sarah Jones	Rep
Will Cooper	2021-09-24T15:25:00.000Z	will.cooper@wc.nowhere		Delivered_vod		0.0	Heather Chan	
James Rappa	2021-09-24T14:01:00.000Z	james.rappa@jr.org		Delivered_vod		0.0	Heather Chan	

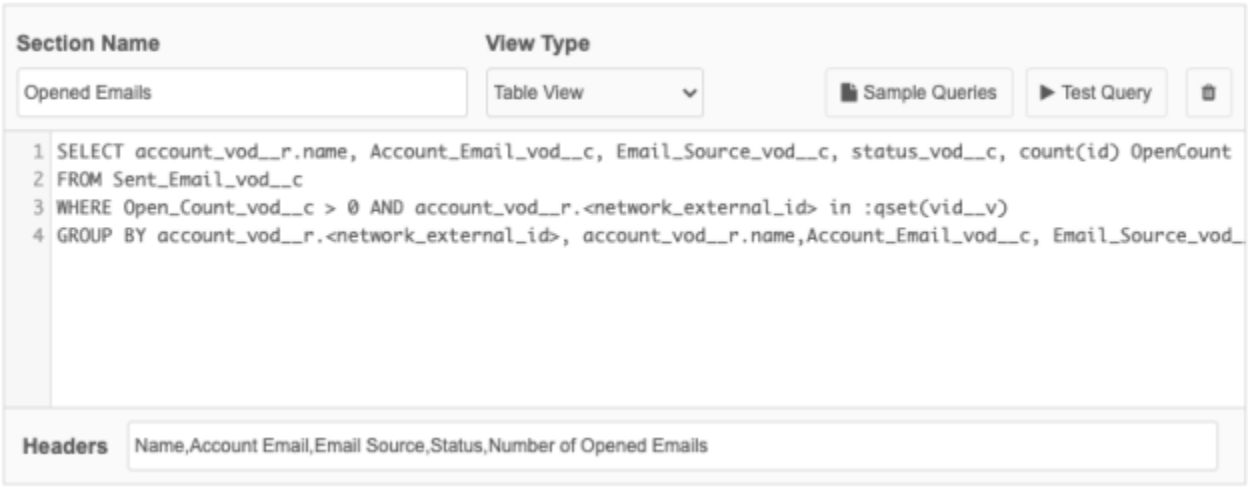
Sample Query 4 - Opened Emails

Description: Opened approved email details for accounts on the influence map.

Query

```
SELECT account_vod__r.name, Account_Email_vod__c, Email_Source_vod__c,
status_vod__c, count(id) OpenCount
 FROM Sent_Email_vod__c
 WHERE Open_Count_vod__c > 0 AND account_vod__r.<network_external_id> in
:qset(vid__v)
 GROUP BY account_vod__r.<network_external_id>,
account_vod__r.name,Account_Email_vod__c, Email_Source_vod__c,
status_vod__c
```

Headers: Name,Account Email,Email Source,Status,Number of Opened Emails



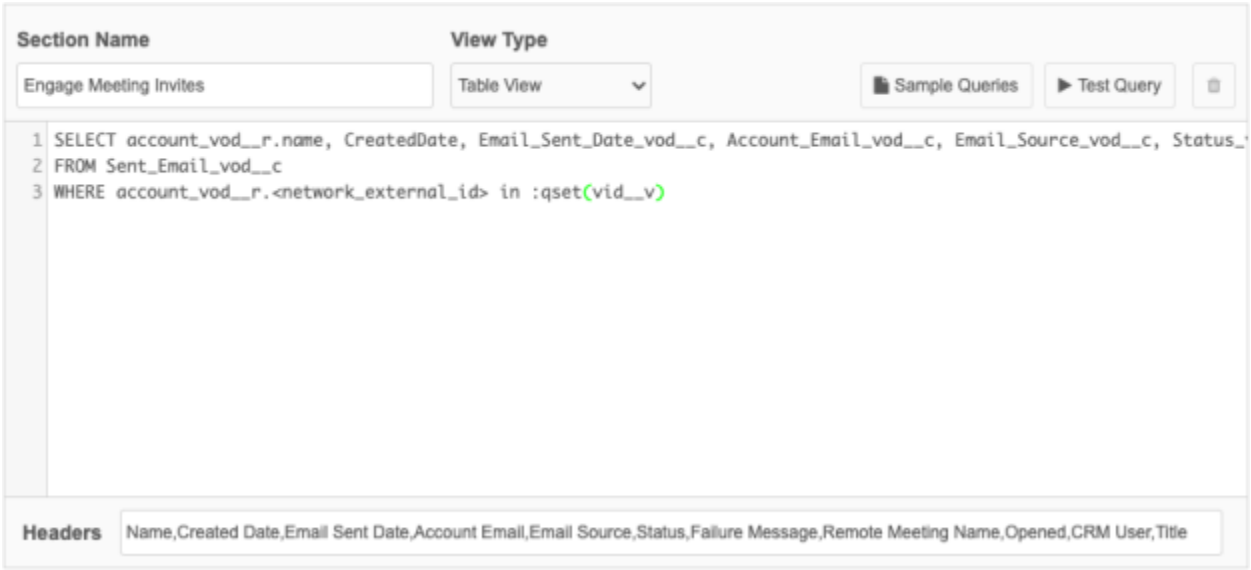
Sample Query 5 - Engage Meeting Invites

Description: Engage meeting invite details for accounts on the influence map.

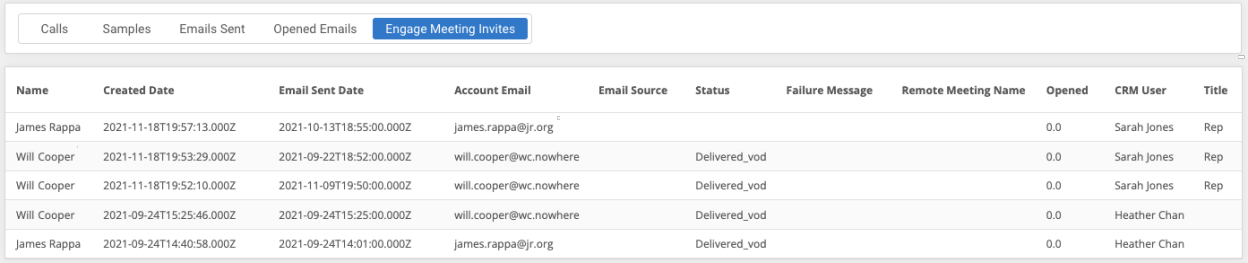
Query

```
SELECT account_vod__r.name, CreatedDate, Email_Sent_Date_vod__c,
Account_Email_vod__c, Email_Source_vod__c, Status_vod__c,
Failure_Msg_vod__c, Call2_vod__r.Remote_Meeting_vod__r.Meeting_Name_vod__c,
Opened_vod__c, CreatedBy.Name,CreatedBy.Title
 FROM Sent_Email_vod__c
 WHERE account_vod__r.<network_external_id> in :qset(vid__v)
```

Headers: Name,Created Date,Email Sent Date,Account Email,Email Source,Status,Failure Message,Remote Meeting Name,Opened,CRM User,Title



Example results



Name	Created Date	Email Sent Date	Account Email	Email Source	Status	Failure Message	Remote Meeting Name	Opened	CRM User	Title
James Rappa	2021-11-18T19:57:13.000Z	2021-10-13T18:55:00.000Z	james.rappa@jr.org					0.0	Sarah Jones	Rep
Will Cooper	2021-11-18T19:53:29.000Z	2021-09-22T18:52:00.000Z	will.cooper@wc.nowhere		Delivered_vod			0.0	Sarah Jones	Rep
Will Cooper	2021-11-18T19:52:10.000Z	2021-11-09T19:50:00.000Z	will.cooper@wc.nowhere		Delivered_vod			0.0	Sarah Jones	Rep
Will Cooper	2021-09-24T15:25:46.000Z	2021-09-24T15:25:00.000Z	will.cooper@wc.nowhere		Delivered_vod			0.0	Heather Chan	
James Rappa	2021-09-24T14:40:58.000Z	2021-09-24T14:01:00.000Z	james.rappa@jr.org		Delivered_vod			0.0	Heather Chan	

NETWORK WIDGETS

21R2.1

Data components are now supported on account profiles in Network widgets.

Data components were introduced in version 21R1.1 so users could view external data related to main entities (HCPs, HCOs, and custom objects) in Network without logging into another system. Previously, data components were limited to the Network UI. Now, you can view external data for HCPs and HCOs in the Network widgets. Administrators can apply the same data component to the Network UI and the Network widgets.

This feature is enabled by default in your Network instance.

Supported Network widgets

Administrators can add existing or new data components to the following Network widgets:

- Affiliation widget
- Profile widget
- Search widget

Data components cannot be applied to the My Request widget.

Network Portal

If you are using Network widgets in the Network Portal, the portal must be enabled to see the data components in the widgets. Data components do not display when the Network Portal is in preview mode.

Adding data components to widgets

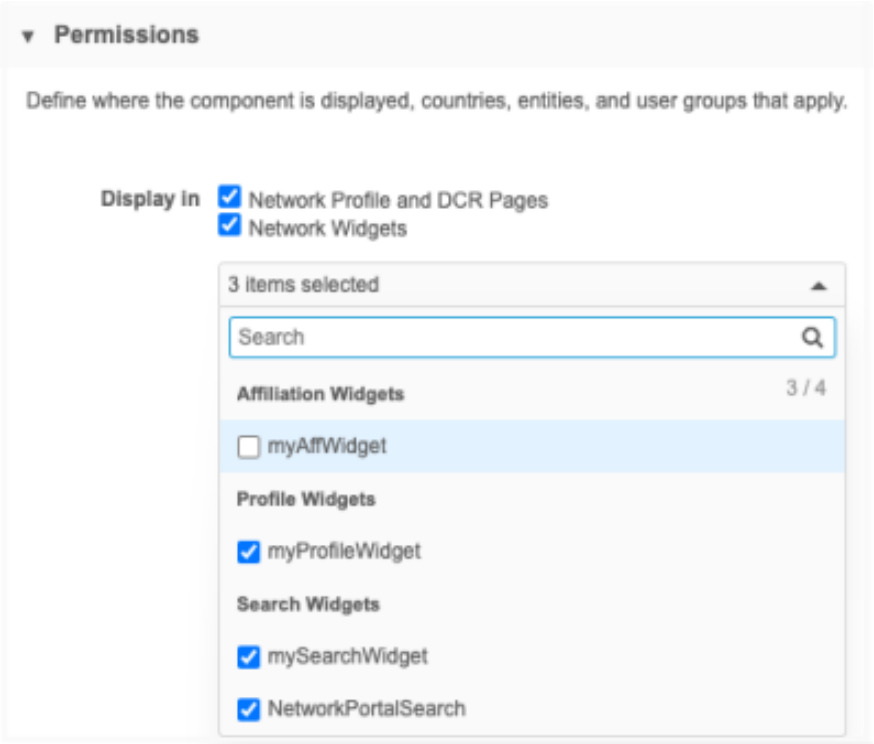
To apply an existing data component to a widget:

1. In the Admin console, click **Widgets & Portal > Data Components**.
2. Select a data component from the list.
3. In the **Permissions** section, next to the **Display in** setting, choose **Network Widgets**.

   This is a new setting to support data components in widgets. On new and existing data components, the **Network Profile and DCR Pages** option is selected by default.

4. Expand the list and select the widgets that the data component should be applied to. The widgets are grouped by widget type. The list is enabled only when **Network Widgets** is selected in the **Display in** setting.

   Widgets that are not enabled are dimmed in the list.



5. **Save** your changes.

   The data component is now available in the widgets that you selected.

For detailed instruction about creating data components, see the Creating data components topic in the *Veeva Network Online Help*.

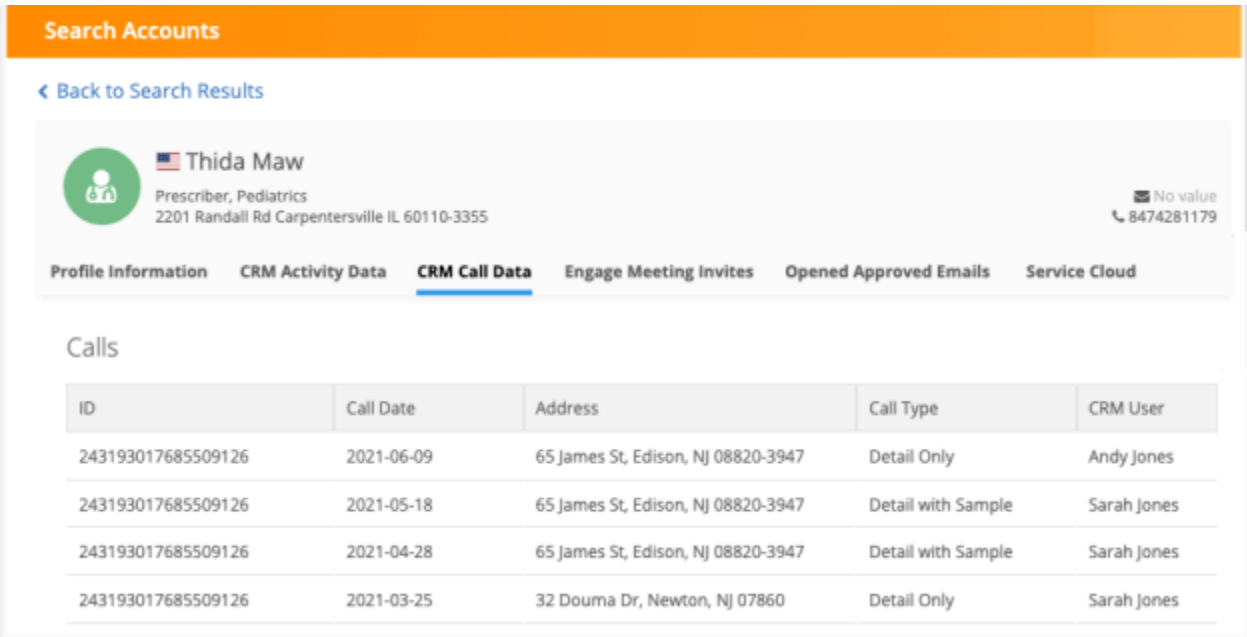
Viewing data components in the widgets

The countries, entities, and permissions (user groups) defined in the data component configuration determine what components display for you in the widgets.

Profile and Search widgets

Data components display in tabs at the top of record profiles. They are listed alphabetically after the **Profile Information** tab. The order cannot be changed. The tabs do not display if data components have not been applied to this widget or do not apply to the profile. For example, if a data component applies to HCPs only, it does not display on HCO accounts.

In the Search widget, data components display when users view a record profile from the search results.



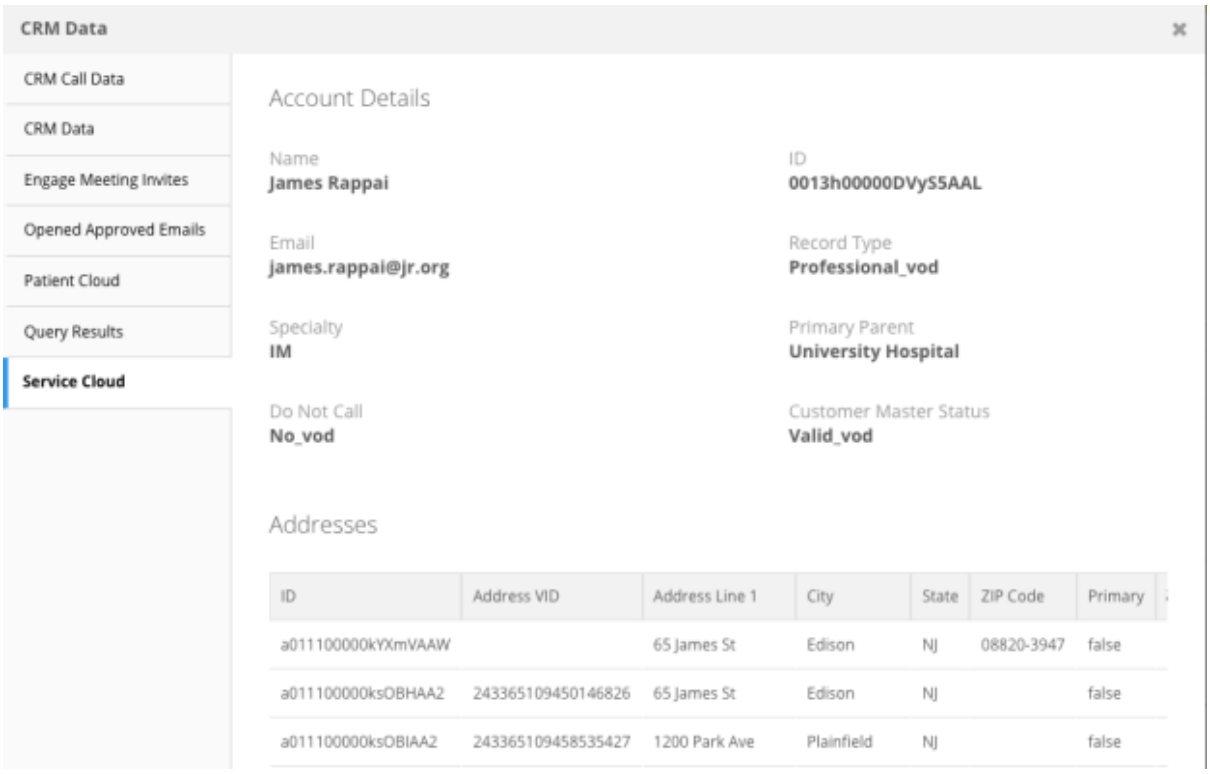
Edit profiles

The external data on the data component tabs is read-only. Profiles can be edited only on the **Profile Information** tab if editing is enabled in the widget.

Affiliation widget

The **Data Components** button displays on the profile when you view an account. Administrators can customize the button name on the Data Component Settings page; for example, it might be called **CRM Data**. The button does not display if data components are not defined for the widget or do not apply to the profile.

Click the button to display the dialog.



The first available data component displays. Additional data components are listed alphabetically in the left pane. By default, 25 results are shown in the data component table views. Use the **Show** list to customize the number of results that display for each table.

Logs

The **System Audit Log** tracks changes to where data components are displayed.

Inbox

TASKS WITH MANY OBJECTS

21R2.1

Improvements have been made to the DCR process to support tasks for entities that have a large number of sub-objects (more than 100 sub-objects for each sub-object type) or that have a large number of pending associated tasks (more than 100 tasks).

This enhancement is enabled in your Network instance by default.

Sub-objects

When data change requests are submitted, Network reindexes the DCR task and the entity. Indexing DCRs for records that contain many sub-objects (for example, 300 sub-objects or relationship objects) may cause issues in your Network instance. To better handle these types of tasks, Network will not index the sub-object or relationship object records if there are more than 100 records for each object type.

Example

A DCR is submitted to update the name for an HCO. The existing HCO record has 101 addresses, 5 ParentHCOs, and 3 Licenses. Network will only index the ParentHCO and License objects for that task; the address object will not be indexed because there are more than 100 addresses on the record.

Impact:

- **Inbox** - Addresses will not display for that record on the Inbox page.

No Impact:

- **Search** - You can search against the addresses for that HCO.
- **Profile**: - All 101 addresses display on the record profile.
- **DCRs**: The DCR displays all addresses.
- **Reports**: All 101 addresses are available in reporting.

Associated tasks

After an update to a record, Network indexes the entity for each associated pending task. Network will not reindex the entity if there are more than 100 associated tasks for the record.

Example

An HCP record has 101 pending associated tasks. An update is made to the HCP's Medical Degree through a source subscription. Network will not reindex the 101 associated tasks to apply the update to HCP's Medical Degree.

Impact:

- **Inbox** - The degree of the HCP will not be updated on each pending task in the Inbox

No Impact:

- **Search** - You can search for the degree of the HCP using Network search.
- **Profile** - The updated degree of the HCP is displayed in the profile
- **DCRs** - The DCR will show the data submitted in the request.
- **Reports** - Reporting will display the HCP's degree

Reports

DATA QUALITY REPORTS

21R3

The **Date** field now displays the start date of the data quality run, not the last update from the reporting data warehouse. Previously, the **Date** field displayed when the reporting database was last updated. After the reporting improvements in version 21R2.1, entity-level updates are immediately exported to the reporting database, so there is no need to track that date.

This enhancement is enabled by default in your Network instance.

CUSTOM TABLES

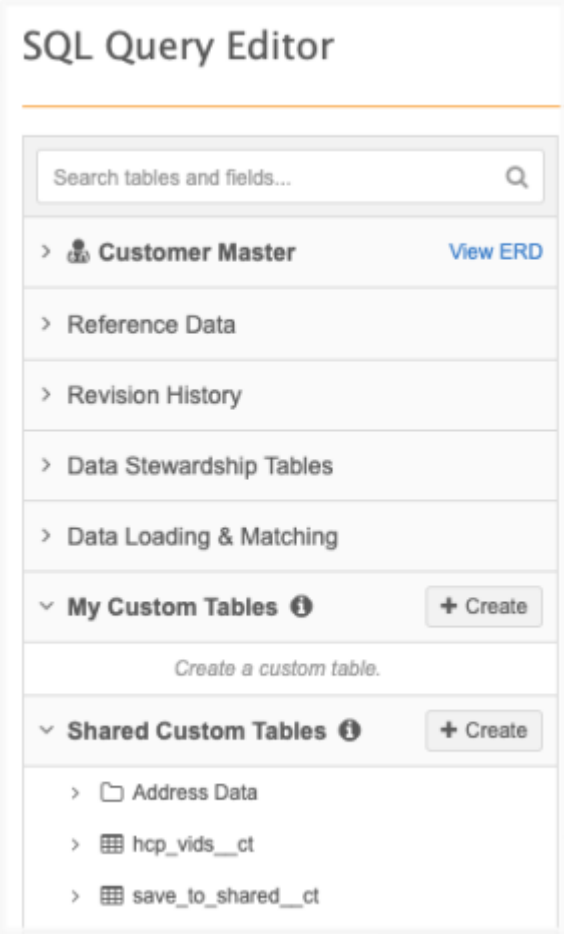
21R2.1

Advanced reporting users can now create their own data tables in the SQL Query Editor. You can create a table by uploading a file or through your report results.

Use custom tables to:

- Compare existing data in your Network instance to a source file before an initial data load.
- Upload a file instead of using the Lookup Tables feature. There is no file size limit for creating a custom table; lookup tables are limited to 1GB or 5 million rows.

  Also, not all reporting users have access to the Admin console and the Lookup Tables feature.
- Create a table based on your report results so you can create complex queries that don't time out.



This feature is enabled by default in your Network instance.

About custom tables

- Tables can be created for your own use or to share with other users.
- The tables are available to immediately query after they are created.
- Table names must be unique in your Network instance. For example, two users cannot have the same table name in their **My Custom Table** sections.
- All users with advanced reporting permissions can access the tables in the **Shared Tables** section.
- You can create a hierarchy of folders in the custom table sections and move the tables in and out of folders.
- Queries can be run against the tables in the following Network features:
    - SQL Query Editor
    - Saved Reports
    - Data Quality Reports
    - Data Maintenance subscriptions (Advanced).

  Custom tables cannot be used in the Basic Report Builder or the Aggregate Report Builder features.

Supported files for custom tables

Create a custom table using your report results or a source file.

Source file requirements:

- File format - Must be .csv.
- File size - Unlimited.
- Column headers - Can contain lowercase letters, numbers, or underscores (_).

  Duplicate column names, blank column names, spaces, and symbols (other than underscores) are not supported.

  To help column headers pass validation, Network converts uppercase letters to lowercase and trims spaces before and after the name.

  Important: Avoid using Network field names as column headers.

Creating a table through a source file

The **My Custom Tables** and **Shared Custom** tables categories display in the SQL Query Editor; they are empty by default.

- **My Custom Tables** - Data tables that you create for your private use. No other users can access the tables in this category.
- **Shared Custom Tables** - Data tables created by you and other users in your Network instance. These tables are available to everyone in your Network instance that has access to SQL Query Editor.

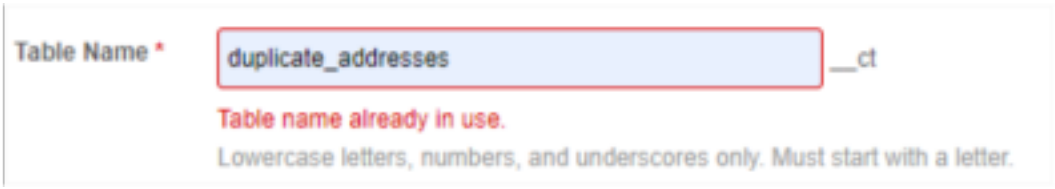
To create a private or shared custom table:

1. On the Network menu bar, click **Reports > SQL Query Editor**.
2. In the tree view, on the **My Custom Tables** or **Shared Custom Table** heading, click **Create > Custom Table**.

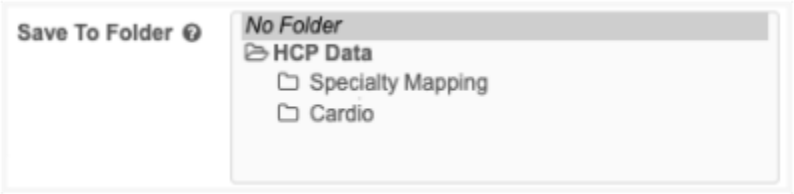
   The Create Custom Table wizard opens.

3. On Step 1, **Table Details**, provide the following information:
   - **Table Name** - Type a meaningful name for this table. The name is automatically appended with the `__ct` suffix.

     Table names must be unique for all custom tables in the Network instance. If the `Table name already in use` message displays, another user has used the name for their custom table. A table name can be used again if the custom table has been deleted.

   - **Description** - Type a meaningful description. The description displays in the table metadata in the tree view.
   - **Table Type** - The custom table category that you chose is automatically selected and cannot be changed.
   - **Save to Folder** - If folders have been created in the custom table section, you can select where the table should be saved. Otherwise, the table will be created in the top level of the section.

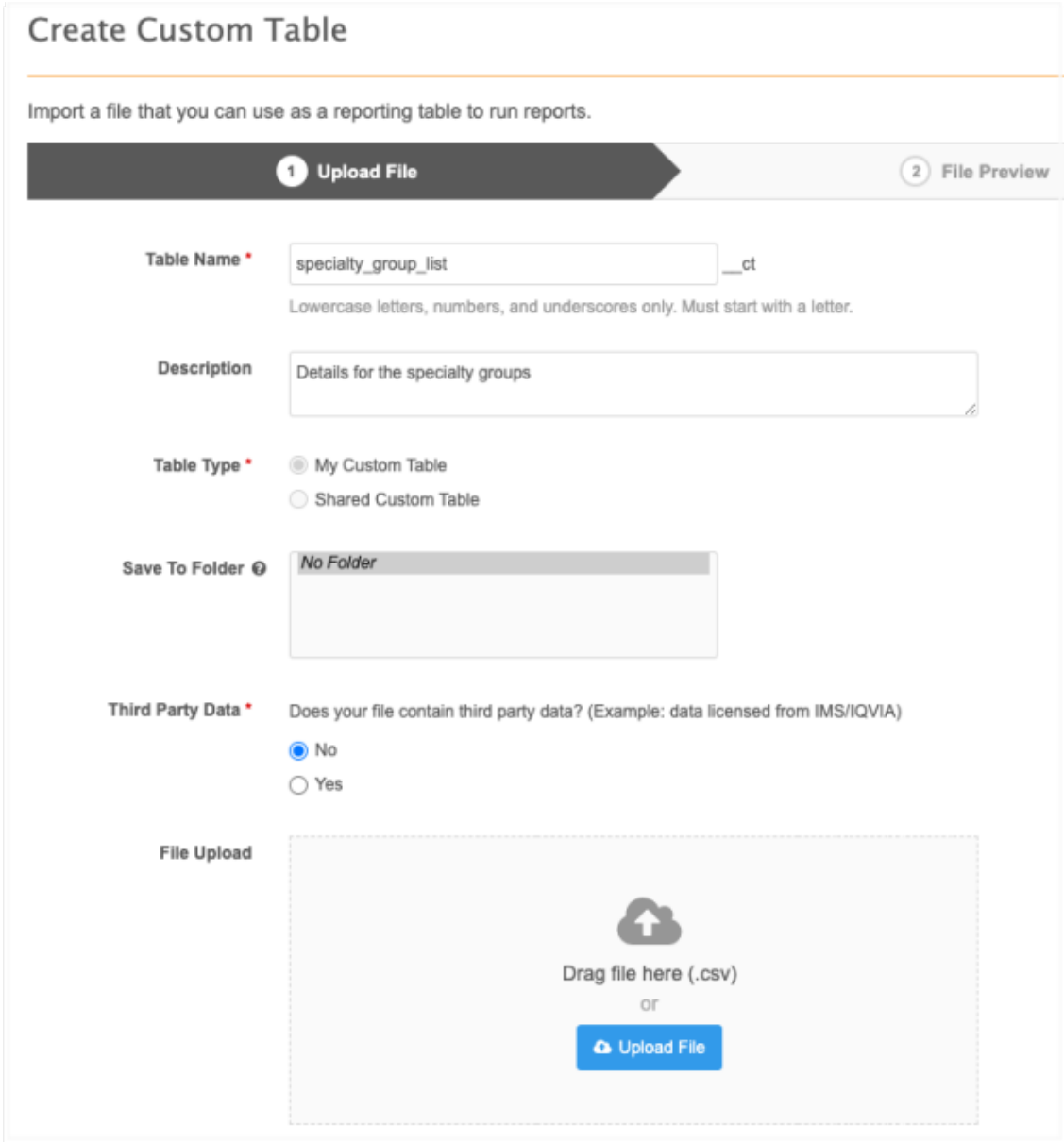
     

   - **Third Party Data** - Indicate if the file that you are uploading contains third party data. If you choose **Yes**, confirm that you have a TPA in place so Veeva can receive the data.
   - **Upload File** - Drag your .csv file to the box or click **Upload File** to choose it from your local computer.

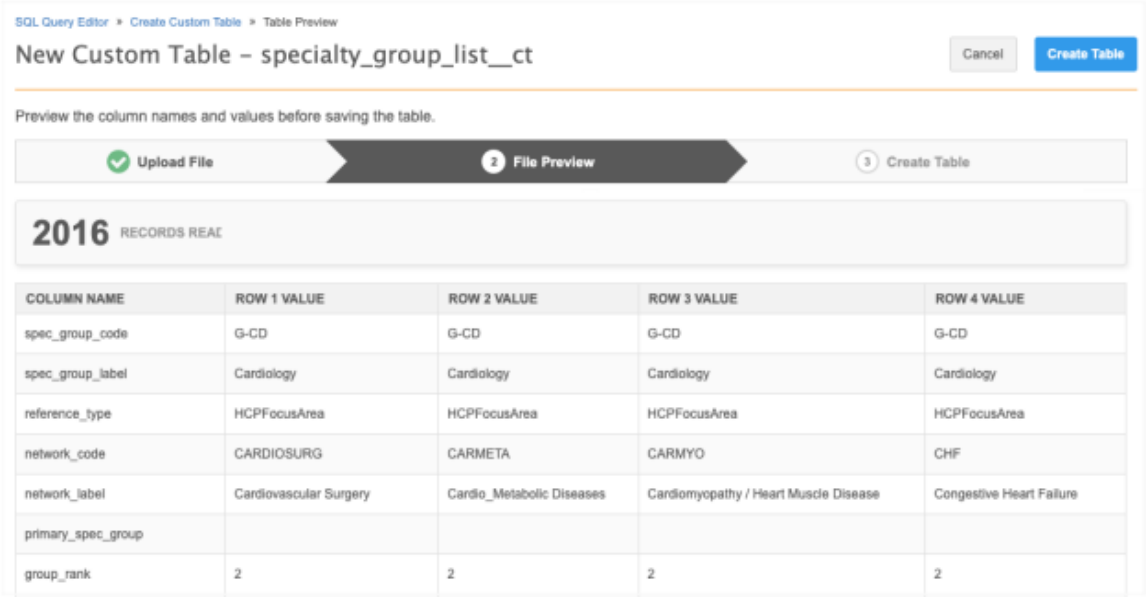
     The file is scanned and validated when it is being uploaded. If any issues are found, warnings or a failed message displays.

     The upload will fail if any of the following issues are found:

     - **Malformed Line Found** - The file contains a malformed line.
     - **Invalid file format** - Files must be in .csv format.
     - **Invalid header format** - Spaces, special characters, or duplicate column names were found.
     - **Something went wrong** - An unknown issue occurred.



4. When the file is uploaded, Step 2 of the wizard automatically opens. The **File Preview** displays a count of the records. This is the total number of rows that will be created in the custom table, not including the column header. The first four rows of the file display so you can preview the data before you create the table.

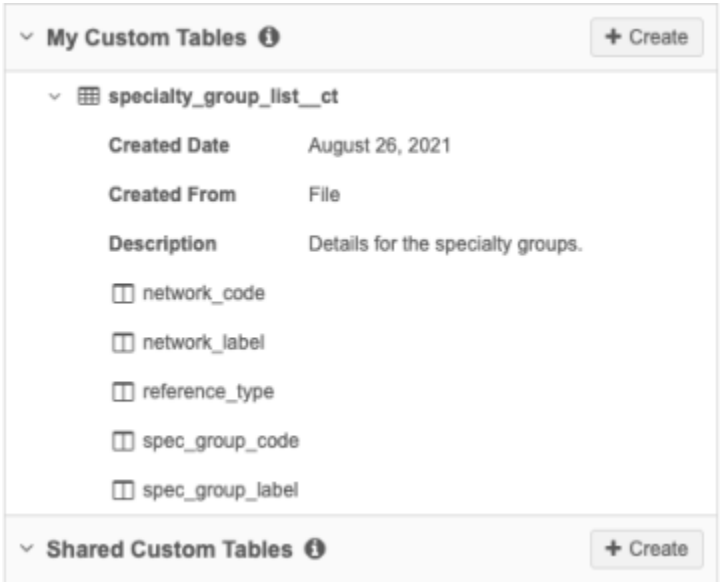


COLUMN NAME	ROW 1 VALUE	ROW 2 VALUE	ROW 3 VALUE	ROW 4 VALUE
spec_group_code	G-CD	G-CD	G-CD	G-CD
spec_group_label	Cardiology	Cardiology	Cardiology	Cardiology
reference_type	HCPFocusArea	HCPFocusArea	HCPFocusArea	HCPFocusArea
network_code	CARDIOSURG	CARMETA	CARMYO	CHF
network_label	Cardiovascular Surgery	Cardio_Metabolic Diseases	Cardiomyopathy / Heart Muscle Disease	Congestive Heart Failure
primary_spec_group				
group_rank	2	2	2	2

If you click **Table Details** to return to the first step, the **Third Party Data** setting will be reset and you must re-upload the file. If you click **Cancel**, the table will not be created.

5. Click **Create Table** to generate the custom table.

When the update is complete, the SQL Query Editor opens with the custom table section opened to the new table. Expand the table to review the metadata and the columns that were created.

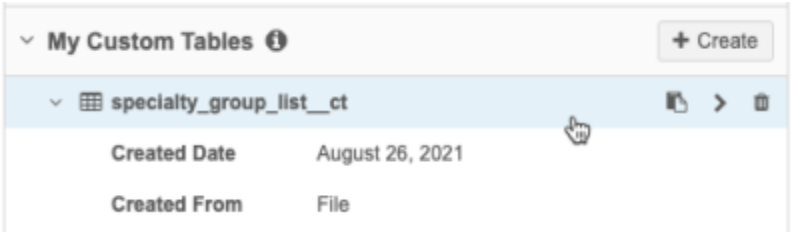


You can now use the table and fields in a report query.

Table actions

Highlight a table to use the action buttons, **Copy to Clipboard**, **Add to Query**, and **Delete**.

Note: Table names must be unique. If you delete a custom table, the name can be re-used.

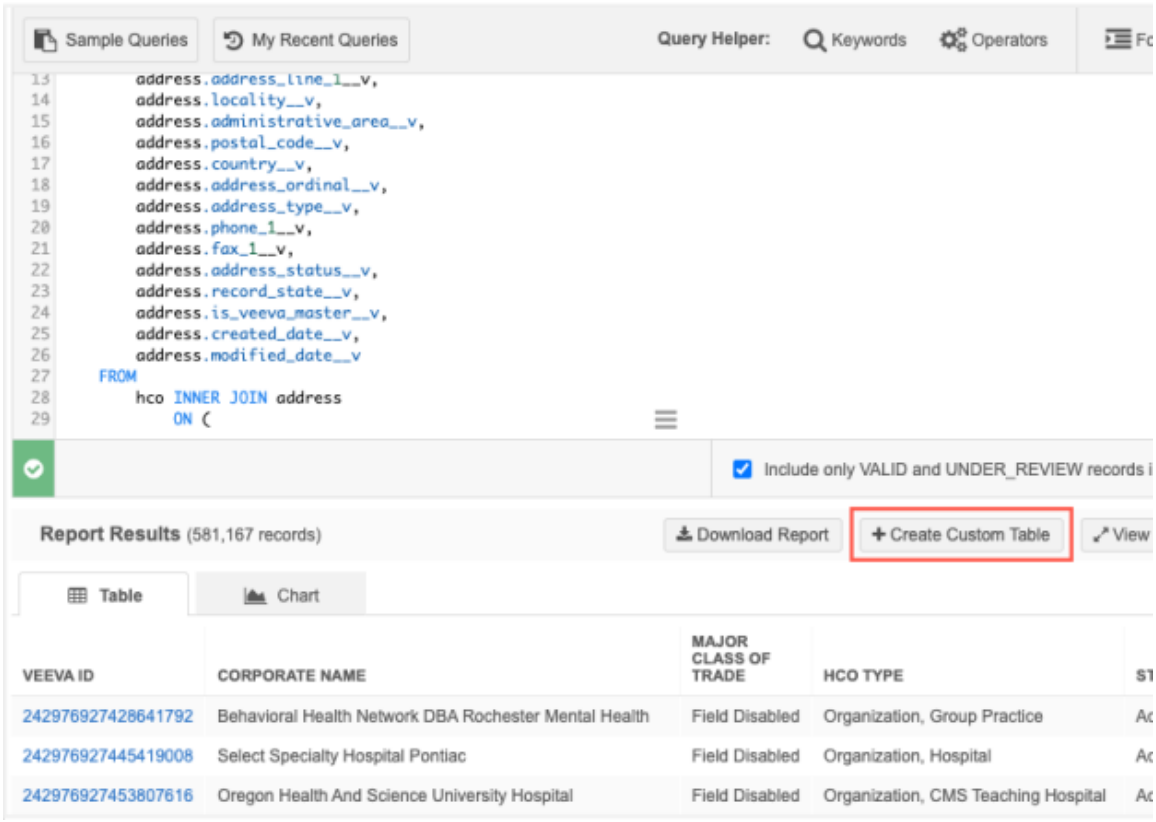


Creating a table from your report results

Using report results to create a custom table enables you to create complex queries that will not timeout.

To create a table using results:

1. In the SQL Query Editor, write a valid query in the query box.
2. Click **Run Query**.
3. In the **Report Results** section, click **Create Custom Table**.



The Create Custom Table wizard opens.

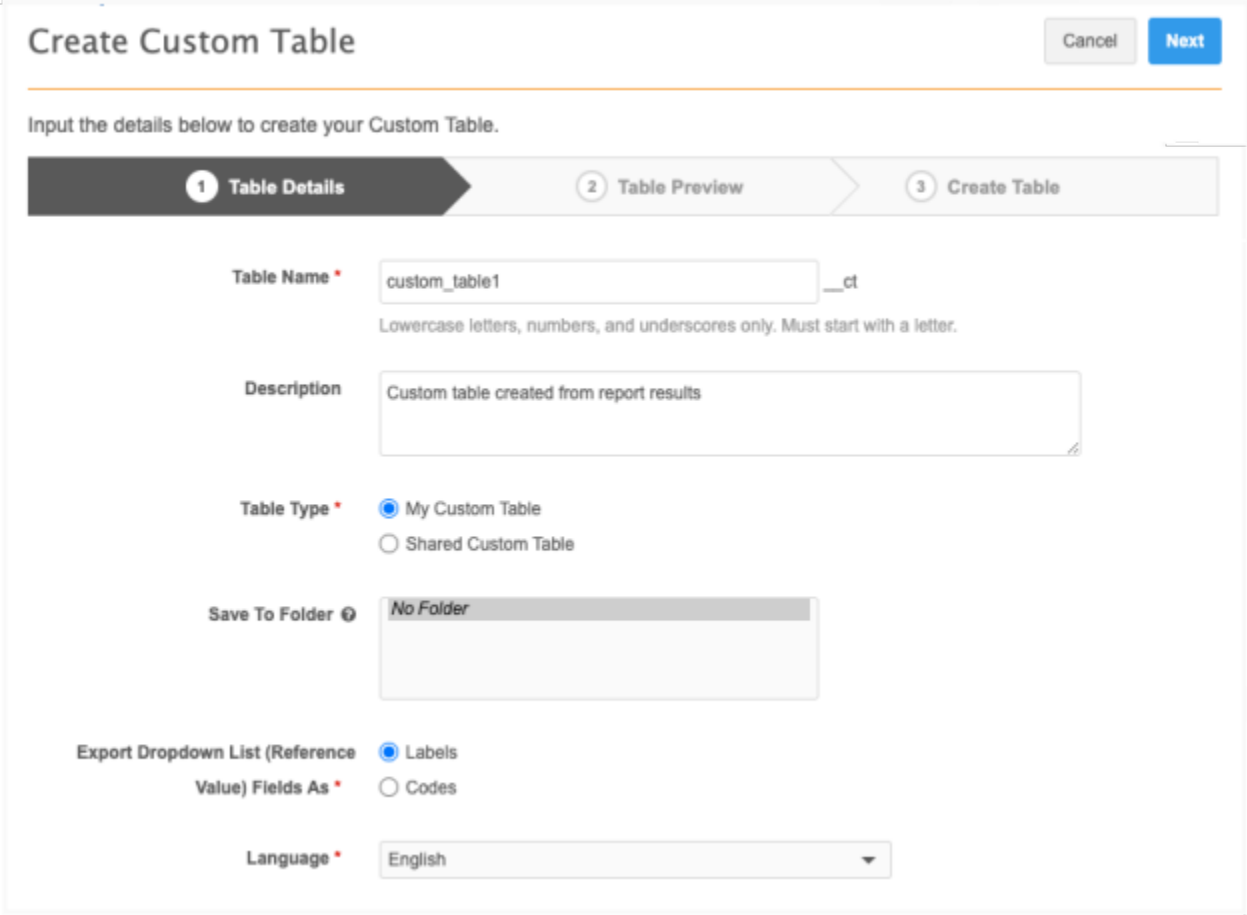
4. On Step 1, **Table Details**, define the settings for the custom table.

   Define the following information:

   - **Table Name** - Type a meaningful name for this table. The name is automatically appended with the `__ct` suffix.

     Table names must be unique for all custom tables in the Network instance. If the `Table name already in use` message displays, another user has used the name for their custom table. A table name can be used again if the custom table has been deleted.

   - **Description** - Type a meaningful description. This displays in the table metadata in the tree view.
   - **Table Type** - Choose the type of custom table to create: **My Custom Table** or **Shared Custom Table**.
   - **Save to Folder** - If folders have been created in the custom table section, you can select where the table should be saved. Otherwise, the table will be created in the top level of the section.
   - **Export Dropdown List (Reference Value) Fields As** - Specify whether reference codes appear in the results, or their corresponding localized labels. Labels will display in the language you select from the drop-down list.



5. Click **Next**.

6. On Step 2, **Table Preview**, a count of the records displays. This is the total number of rows that will be created in the custom table, not including the column header. The first four rows of the file display so you can preview the data before you create the table.

   Column header validation

   Network validates the column headers so the custom table is created without issues. If the column header names have issues, the table cannot be created; the **Create Table** button is dimmed.

   Column name requirements:

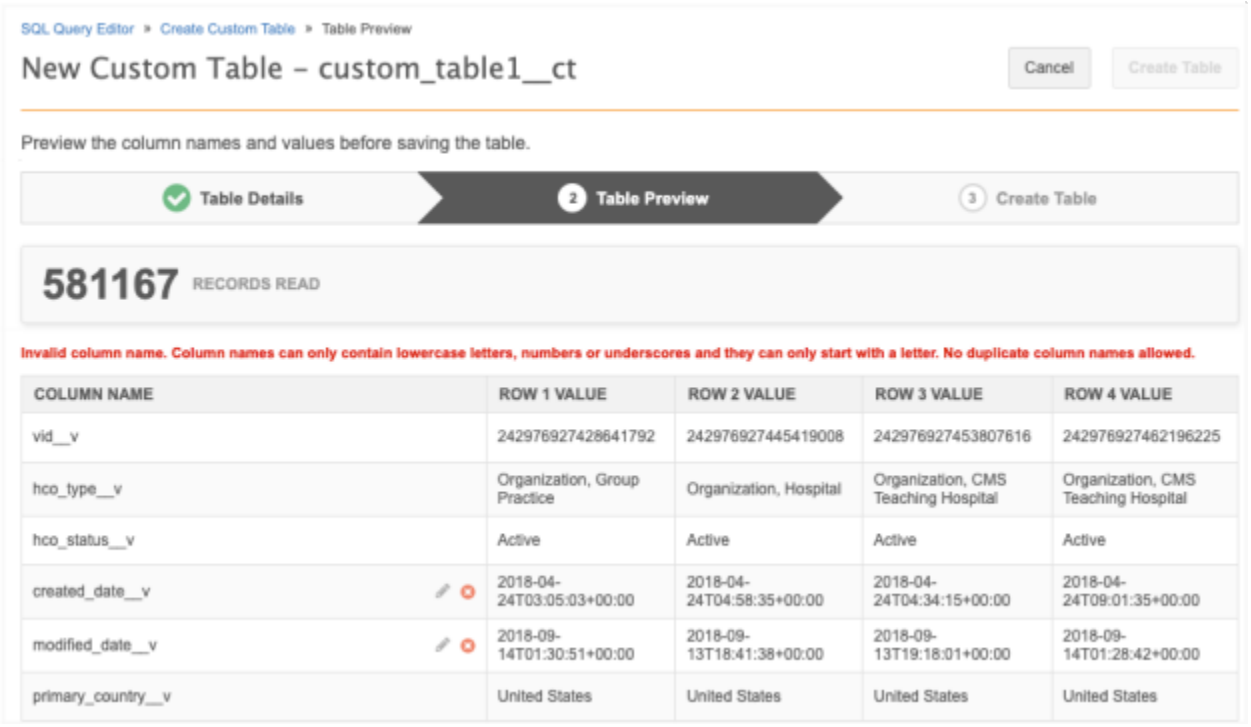
   - Must start with a lowercase letter.

     Network trims spaces before and after the column header name and automatically converts uppercase letters to lowercase.

   - Can contain only lowercase letters, numbers, and underscores (_).
   - Can be SQL reserved words.

   Errors will display for any of the following issues:

   - Duplicate or blank column names
   - Spaces within the column names
   - Special characters are used. Only underscores are supported.



Validation issue example

The column names that display are the data model field names from the report query, not the field label.

In the report query, the `created_date__v` field is used for both the HCO and Address object, so the field name becomes a duplicate column name.

To fix the issue, edit the column name. For example, add an `hco_` prefix to the `created_date__v` column name. When the issue is resolved, the validation icon updates to a green checkmark.

7. When any column header validation issues have been resolved, click **Create Table**. The table will be added to the custom table section that you specified.

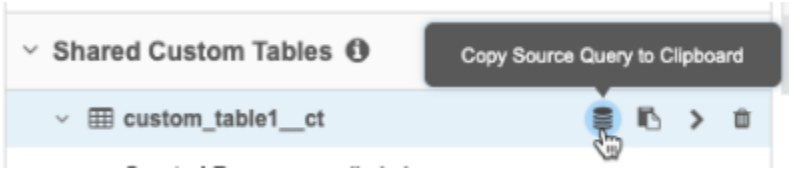
Tip: To share the tables you created in the **My Custom Tables** section, you can drag and drop them into the **Shared Custom Tables** section.

Expand the table name to view the table metadata and the columns that are available to use in your queries.

Retrieving the source query

If you create a custom table using report results, you can retrieve the query that was used to create the table.

- Hover over the custom table name to display the action buttons. Click the **Copy Source Query to Clipboard** icon to copy the query.



Deleting tables

You can clean up the custom tables that you no longer use by deleting them.

- To delete a table, hover over the custom table name to display the action buttons. Click the **Delete** icon.

My Custom Tables

All of the tables in this section can be deleted because you created them.

Shared Custom Tables

Tables in this section can be deleted if you created them. System Administrators and System and Data Admin users can delete any custom table.

If the **Delete** icon is dimmed, you do not have access to delete the table.

Creating folders

To organize your tables, you can create folders and sub-folders in the custom table sections.

To create a folder:

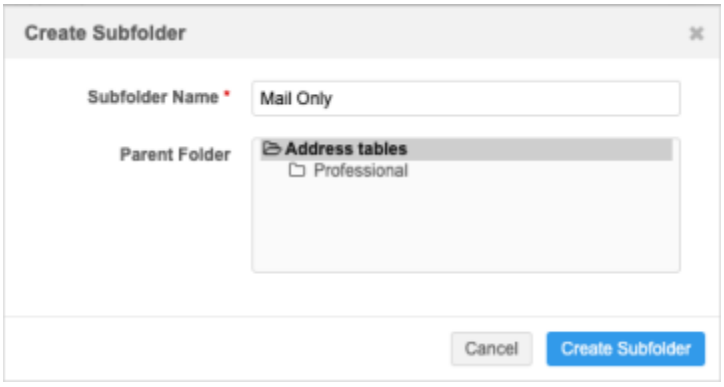
1. In the **My Custom Tables** or **Shared Custom Tables** section, click **Create** and choose **Folder**.
2. On the **Create Folder** pop-up, type the folder name. Click **Create Folder**.

   The folder is added to the section above any existing tables.

3. To organize your existing tables, drag them into the new folder. The hierarchy will be updated.

4. You can also create sub-folders within a folder. Hover over the existing folder and click the **Create** (**+**) icon and click **Subfolder**.

   The **Create Subfolder** pop-up displays the hierarchy so you can choose where to add the sub-folder.



Edit folder names

Folders and sub-folder names can be changed.

- Hover over the folder and click the **Pencil** icon. Make your updates in the name field. Folder names must be unique within the hierarchy; for example, in a top-level folder, two sub-folders cannot contain the same name.

Move folders

Folders can be moved into other folders so you can easily organize the hierarchy within your **My Custom Tables** and **Shared Custom Tables** sections.

- Drag and drop a folder into another folder.

The contents of the folder and any sub-folders will also move. Folders cannot be moved between the two sections.

Delete folders

Folders and sub-folders in the **Shared Custom Tables** sections can be deleted by all reporting users. You can delete all folders in your **My Custom Tables** sections.

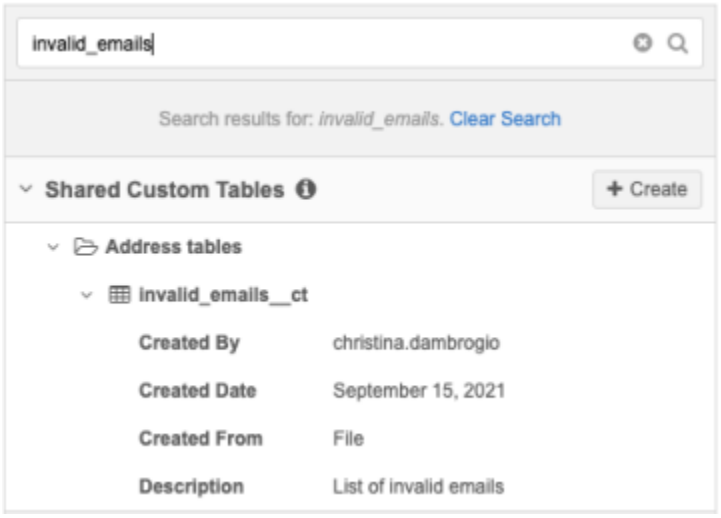
- Hover over the folder and click the **Delete** icon. In the confirmation pop-up, click **Yes, Delete Folder**. The folder is removed from the custom table section.

The icon is dimmed if the folder contains tables. When you delete a folder that contains empty sub-folders, all of the folders are deleted at the same time.

Search for tables

Use the search bar in the tree view to find custom tables and their fields. Folders do not display in the search results.

Your search term displays below the search bar so you can see what the results are filtered on. Click **Clear Search** to clear the filtering and view the entire tree view again.



Logs

All of the actions (creating, deleting, and editing table names and folders) are tracked in the System Audit History (**Logs**).

Saved reports considerations

Tables from the **My Custom Table** category can be used in Saved Reports. Saved Reports use the data permissions of the user who last modified the report. When the user who last modified the report is the creator of the private custom table the report will run successfully. If the Saved Report results are shared with other users, those users might see data from the private custom table. This is expected behavior.

If the Saved Report contains a private custom table and the user that last modified the report is not the creator, then the SQL validation will fail or the user will see an error.

REAL TIME EXPORTS TO THE REPORTING DATABASE

21R2.1

As part of our ongoing Network Reporting infrastructure improvements, entity-level updates are now immediately exported to the reporting database. This means that you can report on updated data as soon as changes are made in Network.

This significantly improves on the existing process of scheduled database updates and eliminates the need for the **Reporting Database Last Updated** timestamp on the reporting pages.

These improvements are enabled by default in your Network instance.

Data model

DATA PRIVACY OPT OUT DATE

21R3

The **Customer Data Privacy Opt Out Date** field will become read-only in this release; Network version 21R3.0.

The field was introduced in version 20R3.1 to capture the date that the data privacy opt out flag is set to **True**. The field has been editable so administrators could backfill the date on locally managed HCPs records that were opted out before the field existed.

If you are planning to backfill the **Customer Data Privacy Opt Out Date** field, the updates must be completed before Network instances are updated to version 21R3.0.1 (Production release).

For detailed instructions, see the Data privacy opt out date topic in the *Veeva Network Online Help*.

DATA PRIVACY OPT OUT

21R3

Veeva OpenData now manages HCP opt outs for South Korea.

Two data model fields have been enabled for the HCP object:

- `data_privacy_opt_out__v`
- `data_privacy_opt_out_date__v`

Records that are opted-out by Veeva OpenData do not display and cannot be accessed in downstream systems. This ensures data privacy for opted-out HCPs to satisfy regional regulatory requirements.

Opted-out countries

To review the list of opted-out countries, in the Admin console:

1. Click **Data Model > Data Domains** and choose the **Customer Master** domain.
2. Select the **Health Care Professional** object and find the `data_privacy_opt_out__v` field in the **Fields** section.
3. Click the field to review the list of opted-out countries that are managed by Veeva OpenData.

FORMATTED NAME

21R3

A custom calculation has been added for the `formatted_name__v` field for South Korea. The formatted name uses values from several name fields to display a complete name for an HCP.

This enhancement is enabled by default in your Network instance.

Name calculation

HCP names for South Korea are calculated using these Veeva fields in the following order:

```
last_name__v + first_name__v
```

The formatted name displays on the profile page.

CHANGES TO NON-SYSTEM FIELDS

21R2.1.3

Several updates have been made to non-system Veeva fields so Administrators and Data Managers have more control and consistency over the fields in their Network instance.

These updates occurred in the 21R2.1.3 maintenance release. The changes are documented for information purposes only; no action is required.

Unlocked fields

All non-system Veeva fields are now unlocked. Previously, the non-system fields that were released in Network v1.0 were locked, but fields from subsequent releases were not.

Unlocking the fields means that they can now be disabled and enabled in any Network instance.

The following fields have been unlocked:

	Field Name	Localized UI Label	Field Type	Object
1	academic_title__v	Academic Title	Reference	HCP
2	accept_medicaid__v	Accept Medicaid?	Reference	HCO
3	accept_medicare__v	Accept Medicare?	Reference	HCO
4	ama_do_not_contact__v	AMA Do Not Contact?	Reference	HCP, HCO
5	aoa_id__v	AOA ID	String	HCP
6	birth_city__v	Birth City	String	HCP
7	birth_country__v	Birth Country	Reference	HCP
8	birth_state__v	Birth State	Reference	HCP
9	birth_year__v	Birth Year	Year	HCP
10	board_certification__v	Board Certification	Reference	HCP
11	count_all_locn_md_do__v	# of MDs and DOs all locations	Number	HCO
12	count_all_locn_medstaff__v	# of Medical Staff all locations	Number	HCO
13	count_all_locn_non_md_do__v	# of non-MDs and DOs all locations	Number	HCO
14	count_beds__v	# of Beds	Number	HCO
15	count_discharged_patients__v	# of Patients Discharged annually	Number	HCO
16	count_employees__v	# of Employees	Number	HCO
17	count_licensed_asst_drs__v	# of Licensed Assistant Doctors	Number	HCO
18	count_licensed_drs__v	# of Licensed Doctors	Number	HCO
19	count_md_do__v	# of MDs and DOs	Number	HCO
20	count_medstaff__v	# of Medical Staff	Number	HCO
21	count_non_md_do__v	# of non-MDs and DOs	Number	HCO
22	count_patients__v	# of Patients	Number	HCO
23	credentials_1__v	Credentials 1	Reference	HCP
24	credentials_2__v	Credentials 2	Reference	HCP
25	credentials_3__v	Credentials 3	Reference	HCP
26	credentials_4__v	Credentials 4	Reference	HCP
27	credentials_5__v	Credentials 5	Reference	HCP

	Field Name	Localized UI Label	Field Type	Object
28	cri_id__v	MA CRI ID	String	HCP, HCO
29	education_level__v	Education Level	Reference	HCP
30	established_date__v	Date HCO Established	Date	HCO
31	fax_1__v	Fax 1	String	HCO, Address, ParentHCO
32	fax_10__v	Fax 10	String	HCO, Address, ParentHCO
33	fax_2__v	Fax 2	String	HCO, Address, ParentHCO
34	fax_3__v	Fax 3	String	HCO, Address, ParentHCO
35	fax_4__v	Fax 4	String	HCO, Address, ParentHCO
36	fax_5__v	Fax 5	String	HCO, Address, ParentHCO
37	fax_6__v	Fax 6	String	HCO, Address, ParentHCO
38	fax_7__v	Fax 7	String	HCO, Address, ParentHCO
39	fax_8__v	Fax 8	String	HCO, Address, ParentHCO
40	fax_9__v	Fax 9	String	HCO, Address, ParentHCO
41	fellow__v	Fellow	Reference	HCP
42	gender__v	Gender	Reference	HCP
43	grad_training__v	Grad Training?	Reference	HCP
44	grad_trg_end_date__v	Grad Training End Date	Date	HCP
45	grad_trg_start_date__v	Grad Training Start Date	Date	HCP
46	grad_year__v	Graduation Year	Year	HCP
47	hco_tax_id__v	Tax ID	String	HCO
48	hospital_grade_v	Hospital Grade	Reference	HCO

	Field Name	Localized UI Label	Field Type	Object
49	is_primary_relationship__v	Primary Relationship?	Reference	ParentHCO
50	lab_services__v	Lab services?	Reference	HCO
51	major_area_of_study__v	Major Study Area	Reference	HCP
52	me_id__v	ME ID	String	HCP
53	medical_degree_1__v	Degree 1	Reference	HCP
54	medical_degree_2__v	Degree 2	Reference	HCP
55	mpa__v	Major Professional Activity	Reference	HCP
56	npi_num__v	NPI	String	HCP, HCO
57	organization_id__v	Hospital Organization ID	String	HCO
58	pdrp_optout__v	PDRP Opt Out?	Reference	HCP
59	pdrp_optout_date__v	PDRP Opt Out Date	Reference	HCP
60	percent_medicaid__v	% of Medicaid Patients	Reference	HCO
61	percent_medicare__v	% of Medicare Patients	Reference	HCO
62	phone_1__v	Phone 1	String	HCP, HCO, Address, ParentHCO
63	phone_10__v	Phone 10	String	HCP, HCO, Address, ParentHCO
64	phone_2__v	Phone 2	String	HCP, HCO, Address, ParentHCO
65	phone_3__v	Phone 3	String	HCP, HCO, Address, ParentHCO
66	phone_4__v	Phone 4	String	HCP, HCO, Address, ParentHCO
67	phone_5__v	Phone 5	String	HCP, HCO, Address, ParentHCO
68	phone_6__v	Phone 6	String	HCP, HCO, Address, ParentHCO
69	phone_7__v	Phone 7	String	HCP, HCO, Address, ParentHCO
70	phone_8__v	Phone 8	String	HCP, HCO, Address, ParentHCO

	Field Name	Localized UI Label	Field Type	Object
71	phone_9__v	Phone 9	String	HCP, HCO, Address, ParentHCO
72	place_of_employment__v	Place of Employment	Reference	HCP
73	practice_start_date__v	Medical Practice Start Date	Date	HCP
74	professional_level__v	Professional Level	Reference	HCP
75	professional_title__v	Professional Title	Reference	HCP
76	roster_date__v	Roster Date	Date	HCO
77	suffix__v	Suffix	String	HCP
78	training_facility__v	Training Facility?	Reference	HCO
79	type_of_practice__v	Type of Practice	Reference	HCP
80	upin__v	UPIN	String	HCP
81	URL_1__v	URL 1	String	HCP, HCO
82	URL_2__v	URL 2	String	HCP, HCO
83	xray_services__v	Xray services?	Reference	HCO
84	years_in_progress__v	Years in Progress	Number	HCP

Sets of fields

Some of the unlocked fields are part of a set of fields. When you enable or disable a field in a set, all of the fields in that set are updated.

Field sets:

- `credentials_1__v` - `credentials_5__v`
- `fax_1__v` to `fax_10__v`
- `medical_degree_1__v` and `medical_degree_2__v`

  `medical_degree_3__v` **Note:** to `medical_degree_5__v` are a separate field set that are already unlocked

- `phone_1__v` to `phone_10__v`
- `URL_1__v` and `URL_2__v`

Default values

Default values have been removed from the following fields:

- `ama_do_not_contact__v`
- `pdrp_optout__v`
- `grad_training__v`
- `fellow__v`

Read-only fields

The following fields are no longer read-only:

- `ama_do_not_contact__v`
- `me_id__v`
- `pdrp_optout__v`
- `pdrp_optout_date__v`

COUNTRY SUPPORT

21R2.1

Veeva OpenData data models have been added for countries in Latin America.

- Bahamas (BS)
- Barbados (BB)
- Bermuda (BM)
- Cayman Islands (KY)
- Curacao (CW)
- Jamaica (JM)
- Trinidad and Tobago (TT)

The data models are based on the Other Countries (ZZ) data model. The data model also includes additional fields so they are consistent with other Latin American OpenData data models.

The activated reference codes are based on the reference codes that are activated for Other Countries (ZZ), along with additional reference codes supported by the Latin America OpenData team.

Localization

- Jamaica - English (en) translations will be used for the Network UI, data model fields, and reference data.
- All other new countries - Spanish (es) translations will be used for the Network UI and data model fields. Spanish-Mexico (es-MX) translations will be used for reference data.

NEW LANGUAGE

21R2.1

Korean (KO) is now supported for data model fields and reference codes. Korean characters can also be used in Network search. Korean is not supported for the Network UI.

This enhancement is enabled in your Network instance by default.

Select the language for reference codes

To view reference codes in this language:

1. On the Network menu bar, click **My Profile**.
2. In the **Settings** section, expand the **Language** list and select **Korean**.
3. **Apply** your changes.

CLUSTER MANAGEMENT

21R2.1

Customers can enrich addresses for additional providers and countries by adding cluster codes. In this release, Network has included support for the following country/third party cluster provider combination:

- Ireland - IQVIA™
- Netherlands - IQVIA
- Russia - IQVIA
- Switzerland - SM Service Marketing™

A TPA must be signed with the third party cluster provider to use the cluster management feature. For more information, see the topic called Managing clusters in the *Veeva Network Online Help*.

GEOCODES

21R2.1

Latitude and longitude fields are now available for addresses in all countries. Geocodes are available when address cleansing is enabled in your Network instance. These values will display on address records after they are loaded, or after they have been updated.

This enhancement will be enabled by default in the Network 21R2.1.1 Production release.

Enable the field

The `geo_accuracy_code_v` field will be enabled by default in all new and existing Network instances. The field cannot be disabled.

Update profile layouts

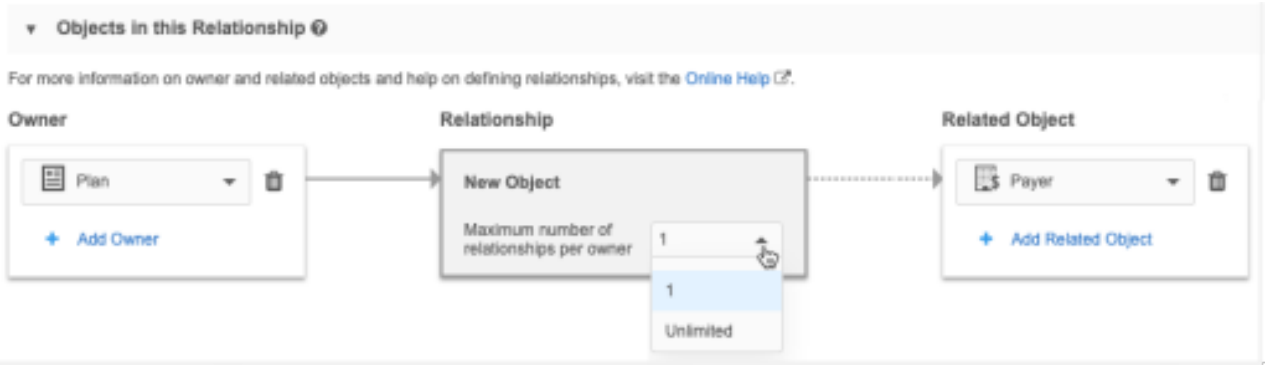
The Geo Accuracy Code field is automatically added to the **Address** section on standard profile layouts. To view the **Latitude** and **Longitude** fields on records, users can click the **Extended Info** link in the **Addresses** profile section. Administrators can add the Geo Accuracy Code field to custom profile layouts.

Custom objects

LIMITING THE NUMBER OF RELATIONSHIPS

21R3

Administrators can now configure custom relationship objects to limit the maximum number of relationships to an owner object to one. Before this release, all relationship objects were many-to-many relationships by default. Now, you can create one-to-many relationships in the data model by limiting relationship objects to one relationship per owner object.



This feature is enabled by default for your Network instance.

Defining relationship objects

When you create a custom relationship object, you must now specify the **Maximum number of relationships per owner** setting.

Choose one of the following options:

- **Unlimited** - Supports many-to-many relationships. This is the default value.
- **1** - Supports one-to-many relationships.

Example

When you create a custom relationship object for payer and plan main objects, set the **Maximum number of relationships per owner** setting to 1. This should be a one-to-many relationship:

- One plan belongs to one payer
- One payer can have many plans

Note: When you save the new custom relationship object, the **Maximum number of relationships per owner** setting becomes read-only.

Existing relationship objects

Relationship objects that previously existed, including the ParentHCO relationship object, are set to **Unlimited** (many-to-many) by default. The setting cannot be changed.

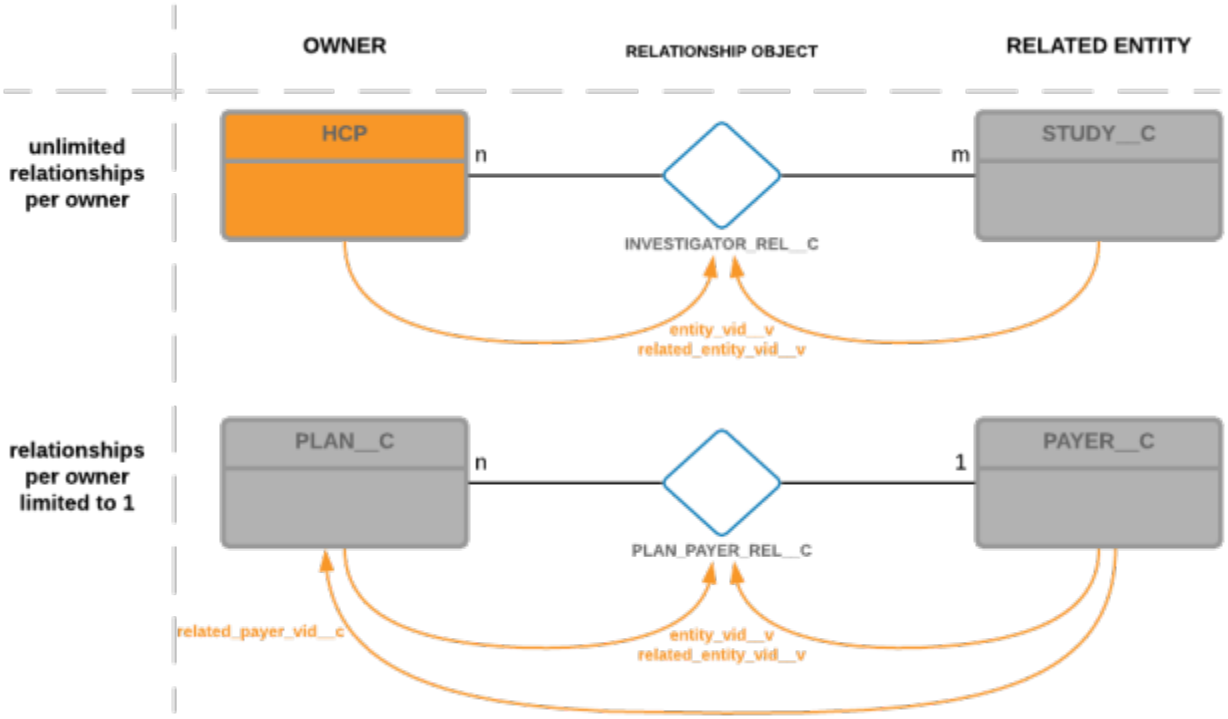
New field for limited relationships

Relationship objects contain the foreign keys for the owner object and the related object.

- `entity_vid__v`
- `related_entity_vid__v`

If you limit a relationship to one-to-many, the Veeva ID (VID) of the related object is added to the owner object as a new foreign key field.

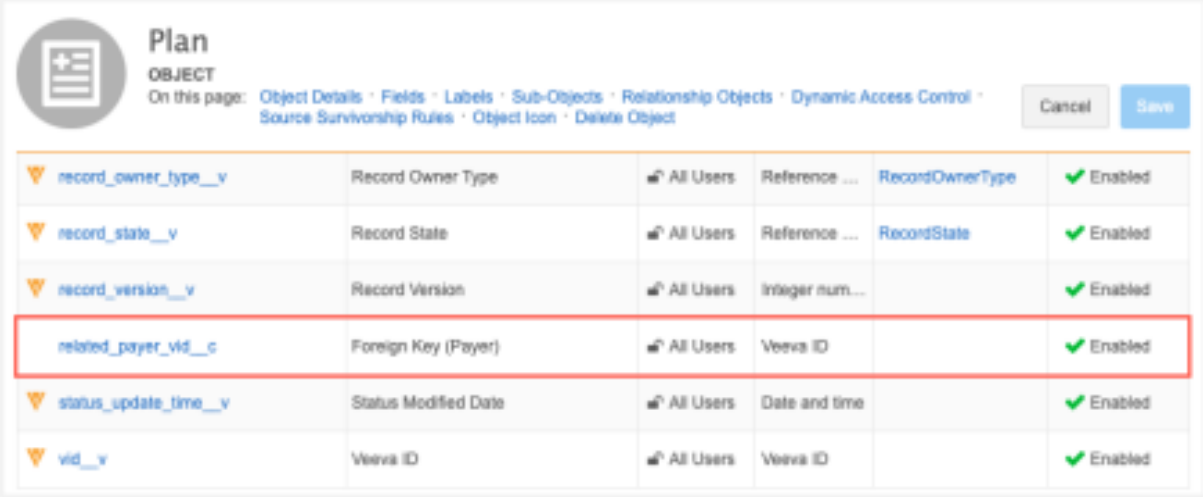
- `related_<related_object_name>_vid__c`



The field is added so it can be exported/accessed through target subscriptions, the Network API, and the Profile page. It enables you to JOIN directly on the foreign key of the related object instead of going through relationship object. Downstream systems like Veeva CRM might expect the VID of the related object on the owner object for one-to-many relationships.

Example

The field for the payer (related) object on the plan (owner) object would be `related_payer_vid__c`.



If more than one relationship exists with the same combination of owner and related object, the field name on the owner is incremented with a counter; for example, `related_payer_vid__c` and `related_payer2_vid__c`.

Adding and updating relationships

When the relationship object is limited to a one-to-many relationship, you can add only one relationship for each owner entity record. Adding multiple relationships through either data loading, add requests (API), or manually on the Profile page is also not possible.

- **Source subscriptions** - If a source file contains more than one relationship for the same owner, then the main entity will fail to load.

  An error message will be logged.

- **API** - If an add or change request is submitted through the Network API and it exceeds the number of allowed relationships, the DCR will display an error message. It will remain in Pending Review status until only one relationship is accepted and the other relationships are rejected.
- **Profile page** - Users are prevented from submitting more than one relationship. The **New Relationship** button is dimmed and the following message displays: `The maximum number of relationships is limited to 1.`

Updates

Updating the one valid relationship using source subscriptions, the Network API, or the Profile page is supported. This could mean that the relationship is repointed and it changes the related entity VID on the owner object.

Record state/status change

When the relationship object is limited, invalidating or inactivating the relationship automatically removes the Veeva ID (VID) value from the **Foreign Key** field on the owner.

- **Inactive relationship** - When a relationship object's record status (*_rel_status__c field) is set to INACTIVE, the **Foreign Key** field value on the owner object is updated to **-1**. If the relationship is updated to ACTIVE, the **Foreign Key** field value is populated with the VID of the related entity again.

- **Invalid relationship** - When a relationship object's record state (record_state__v) is updated to INVALID or DELETED, the related VID field value on the owner object is updated to **-1**. The relationship cannot be updated to VALID again. A new relationship record must be created.
- **Deleting the related entity** - If the related main object's record state is set to INVALID or DELETED, the **Foreign Key** value is updated to **-1** on the owner object

Important: Use the **Delete Custom Object Records** data maintenance job to delete the related objects. The job will properly delete/inactivate the relationship itself and its custom keys. This ensures that a new relationship with another related entity can be created again. If active custom keys remain on the invalid/deleted relationship, then incoming relationships might match with those active custom keys and update the invalid/delete relationship instead of creating a new relationship.

Merging records

Owner objects

When a relationship is limited to one-to-many and the owner records are merged, only one relationship can survive as the valid relationship.

Example merge scenarios

Relationship on Winner	Relationship on Loser	Surviving Relationship
VALID	VALID	Relationship from the merge winner
INVALID	VALID	Relationship from the merge loser
VALID	INVALID	Relationship from the merge winner
None	VALID	Relationship from the merge loser
VALID	None	Relationship from the merge winner

Related objects

When the related object records are merged, the **Foreign Key** field on the owner object of the relationship is updated accordingly.

This could mean that a large number of owner object records are updated. For example, if two Payer records are merged, then all of the Plan records that are linked to the merge loser will have the **Foreign Key** field updated with the VID of the merge winner.

Unmerging records

Owner objects

If the owner object is unmerged, the status of the relationships from before the merge are restored again.

Related objects

If the related entity is unmerged, the owner objects are not updated with the new VID of the umerged entity. Instead, all owner objects remain related to the winner of the previous merge. You must repoint the relationship to the new unmerged entity, if required.

Exporting configurations

Custom relationship objects can be exported to a target environment. When the relationship object is added to the export package, the owner object and related objects are automatically added. If the relationship object is limited to one-to-many, the **Foreign Key** field for the related object will be generated and added to the owner object when the configuration is imported. There is no need to explicitly add the **Foreign Key** field to the export package.

HARD DELETING CUSTOM OBJECT RECORDS

21R2.1

Custom object records can now be hard deleted. Previously, the records could be soft deleted (record state is DELETED) but the custom object definition could not be deleted because tasks and records still existed in the database. Now, the custom object records can be flagged for hard deletion. After Veeva Support deletes the records, administrators can delete the custom object definition.

This feature is enabled by default if you have custom objects enabled in your Network instance.

About hard deleted records

Hard deleting records is helpful when you have loaded data for testing but you no longer want the object and records in your Network instance.

When custom object records are hard deleted:

- They are permanently removed from your Network instance.
- Pending and closed add and change requests are deleted.
- Pending and closed suspect match tasks are deleted if they contain deleted records.
- Source subscription jobs for the deleted records are still available for audit purposes.
- Reports cannot be run on the records. Reports that previously ran using the deleted records are available to view.

Deletion process

The deletion process for custom object records requires assistance from Veeva Support.

Administrators must complete the following tasks:

- Run the **Delete Custom Object Records** data maintenance job to soft delete the records. The records will be updated to the DELETED record state.

  Note: If records were marked INVALID or DELETED using other subscriptions, they will need to be soft-deleted by this data maintenance subscription again. Only this data maintenance job properly updates the record state for the hard deletion process.

- Flag the records to be hard deleted.
- Submit a ticket to Veeva Support to hard-delete the records.

Veeva Network automatically exports the flagged records to your FTP folder (`outbound/hard_delete_backup`) before they are hard deleted. After the deletion is complete, the action cannot be reversed; the records and data are permanently removed.

When the records have been deleted, administrators can delete the custom object definition in the data model.

Run the data maintenance job

To soft delete the custom object records, run the **Delete Custom Object Records** job. Records for one main custom object can be deleted for each job.

When you use the data maintenance job, you have two options:

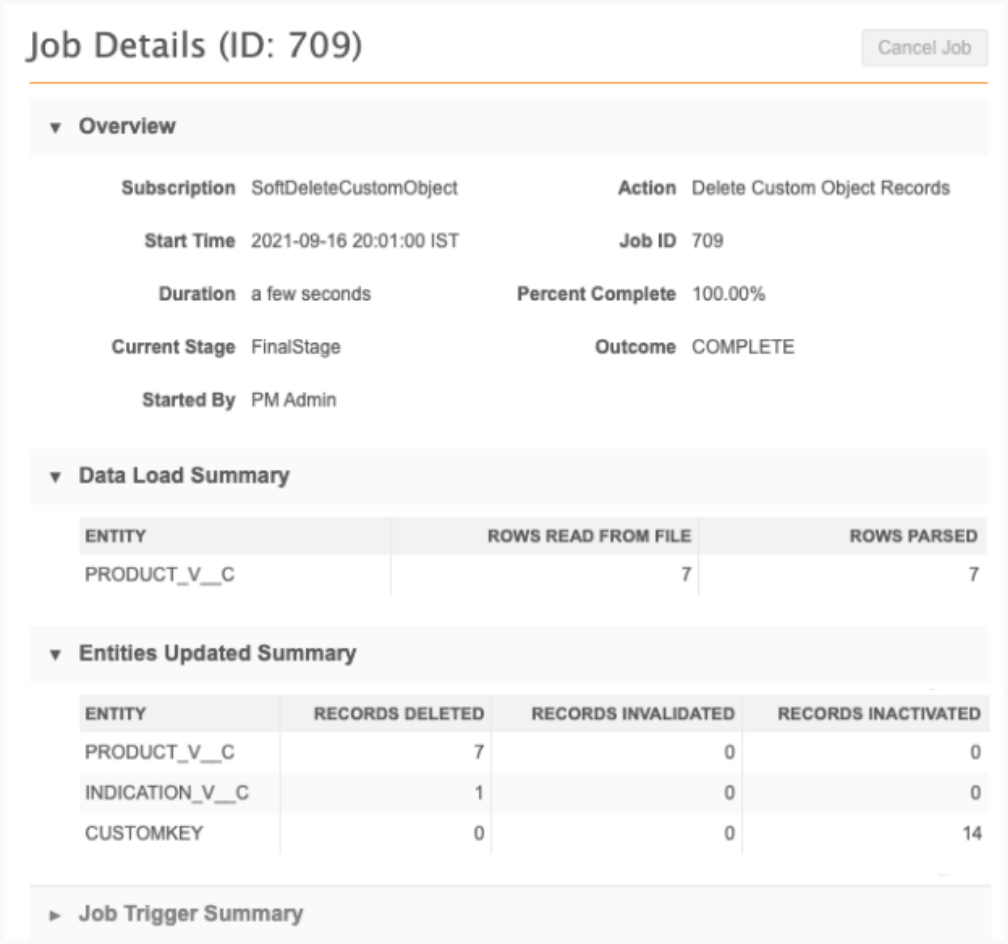
- Delete all records for the object.
- Delete specific records by identifying them by Veeva ID in a .csv file.

  If you delete records using a file, remember to include any unverified records that are invalid. When unverified records are rejected by data stewards, the record state is updated to Invalid. These also need to be updated to DELETED.

For details about creating and running the data maintenance job, see Deleting custom object records in the *Veeva Network Online Help*.

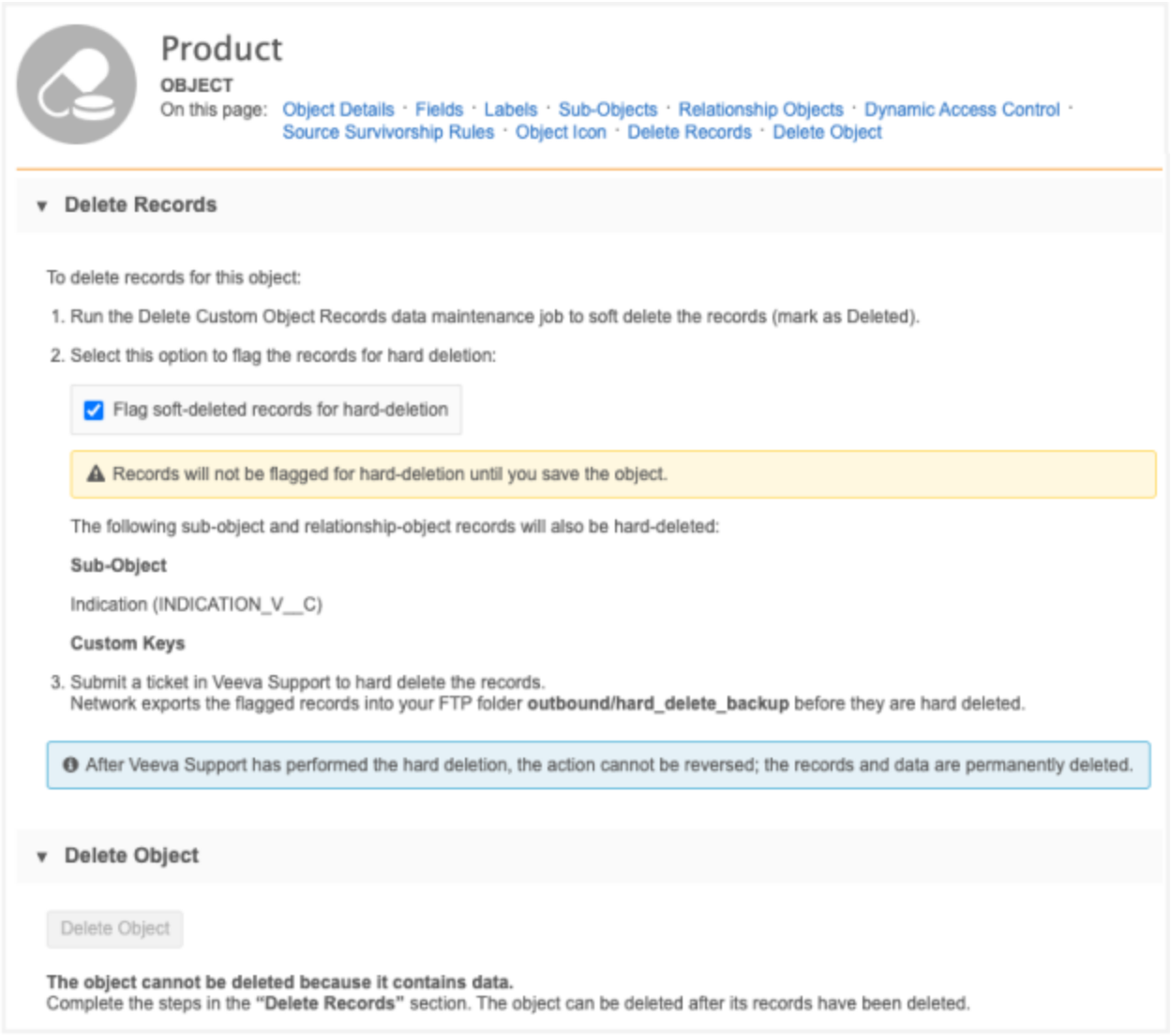
Reviewing the soft delete job details

After the data maintenance jobs runs, you can click the Job **ID** in the **Job History** section to review the details.



Flag records for deletion

When records for main custom objects are deleted, records for custom sub-objects and relationship objects might also be deleted. The impacted objects are identified before you flag the custom object records.



To flag records:

1. In the Admin console, click **Data Model** and choose the data domain that contains the custom object.
2. On the custom domain page, select the custom object.
3. Click the **Delete Records** link on the summary header to go to that section. Review any sub-object or relationship objects that will also have records deleted.
4. Select **Flag soft-deleted records for hard-deletion**.

   Note that the **Delete Object** button is dimmed. You cannot delete the custom object until the records are hard deleted.

5. In the confirmation dialog, click **Flag Record Deletion**.
6. **Save** your changes.

Note: If the records were flagged in error, you can clear the **Flag soft-deleted records for hard-deletion** checkbox any time before Veeva Support begins the hard deletion. Only the records that are flagged at the time of hard deletion will be included in the job.

Tip: If you want to delete the custom object after the records are hard deleted, ensure that new records are not loaded for the object through your subscriptions.

Create a Veeva Support ticket

After the records have been flagged, create a ticket for Veeva Support. Veeva Support will contact you to plan a time for a maintenance window to complete the job. The flagged records will be exported to your FTP folder (`outbound/hard_delete_backup`) before they are hard deleted.

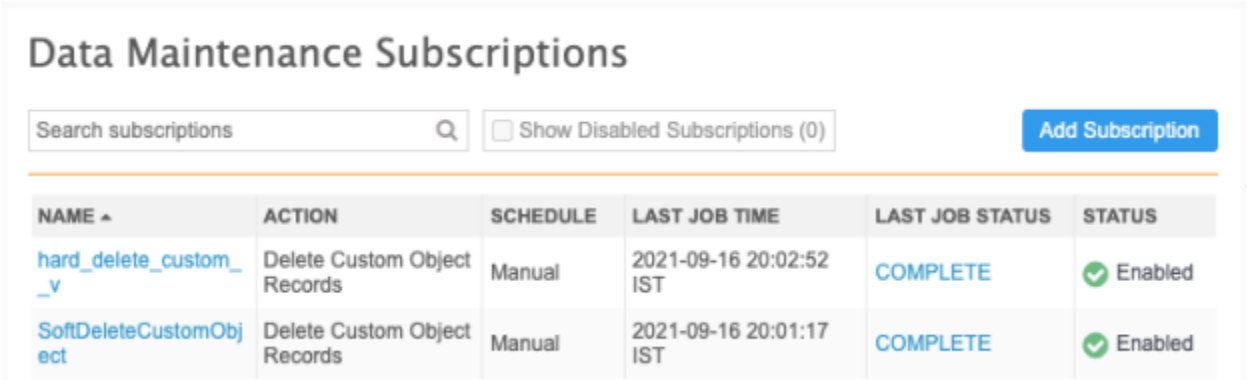
Hard deleting records

Only records that were soft-deleted by the **Delete Custom Object Records** data maintenance job will be hard-deleted by Veeva Support. Records that were updated to DELETED record state using a source subscription will not be included in the hard deletion job.

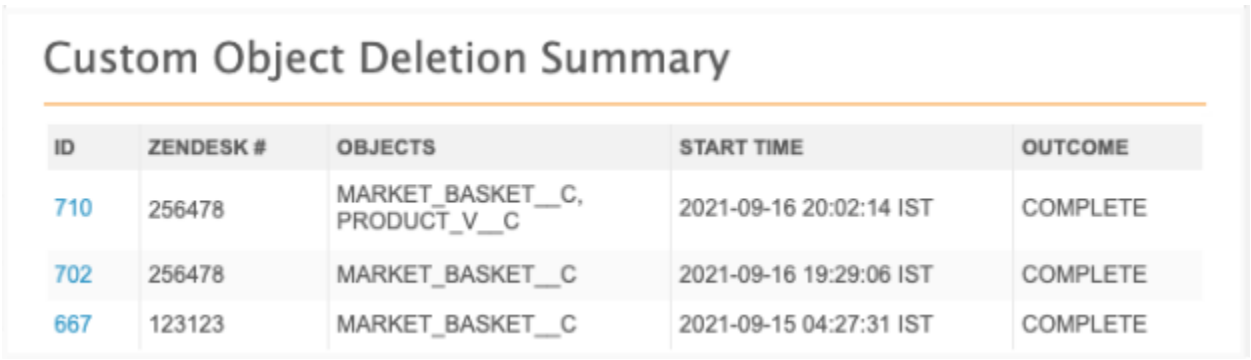
When Veeva Support has completed the job, the records and any tasks for the records are permanently removed.

To review the job details:

- On the Data Maintenance Subscriptions page, click the **hard_delete_custom__v** subscription name in the list. This subscription is generated by Veeva Network.



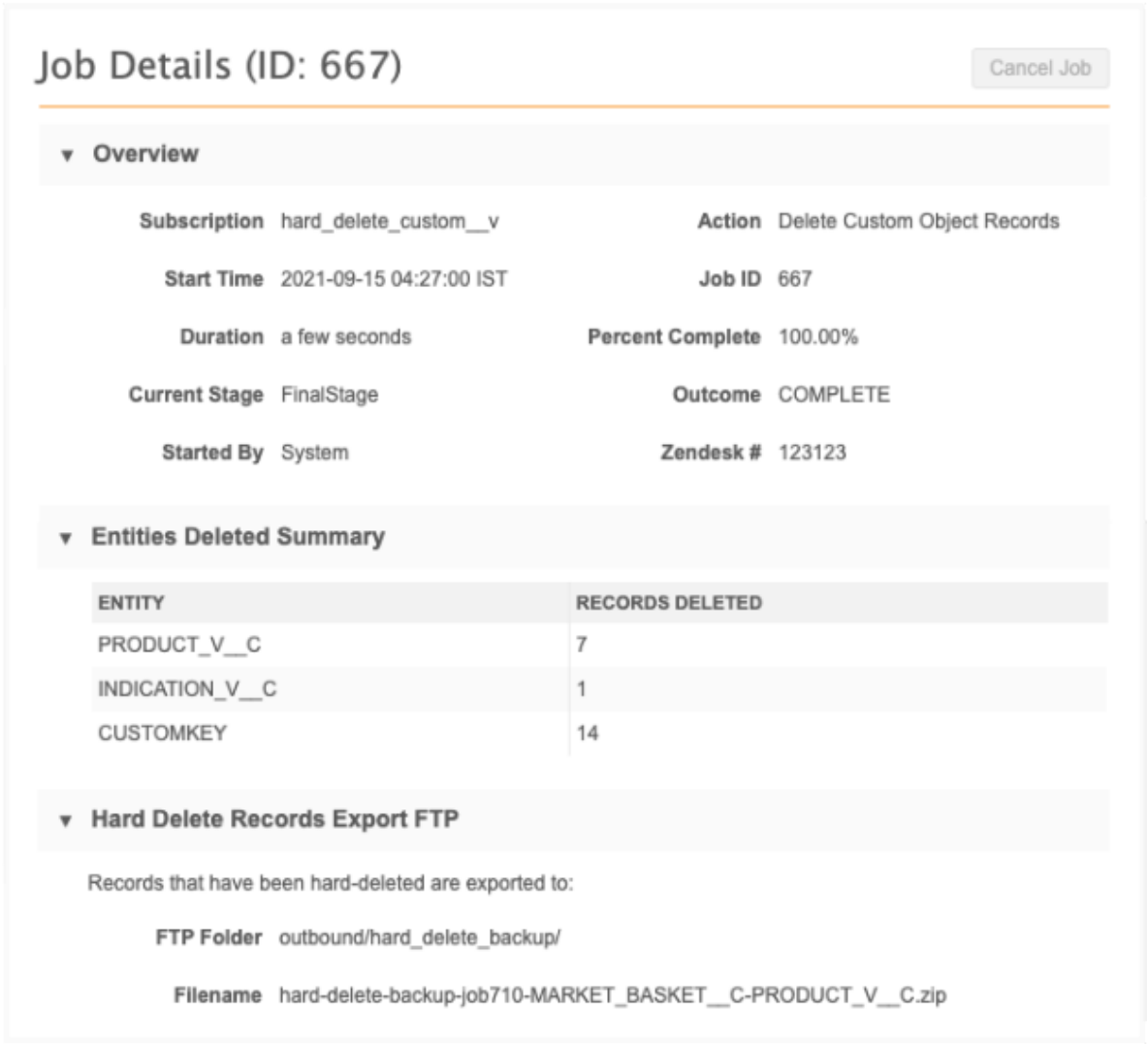
The Custom Object Deletion Summary page lists the hard delete jobs for your Network instance. Each job displays the job ID, Zendesk #, objects that were deleted, the time the job started and the outcome.



Custom Object Deletion Summary

ID	ZENDESK #	OBJECTS	START TIME	OUTCOME
710	256478	MARKET_BASKET__C, PRODUCT_V__C	2021-09-16 20:02:14 IST	COMPLETE
702	256478	MARKET_BASKET__C	2021-09-16 19:29:06 IST	COMPLETE
667	123123	MARKET_BASKET__C	2021-09-15 04:27:31 IST	COMPLETE

Click the job **ID** to review the job details.



Job Details (ID: 667)

Cancel Job

▼ Overview

Subscription	hard_delete_custom__v	**Action**	Delete Custom Object Records
Start Time	2021-09-15 04:27:00 IST	**Job ID**	667
Duration	a few seconds	**Percent Complete**	100.00%
Current Stage	FinalStage	**Outcome**	COMPLETE
Started By	System	**Zendesk #**	123123

▼ Entities Deleted Summary

ENTITY	RECORDS DELETED
PRODUCT_V__C	7
INDICATION_V__C	1
CUSTOMKEY	14

▼ Hard Delete Records Export FTP

Records that have been hard-deleted are exported to:

FTP Folder outbound/hard_delete_backup/

Filename hard-delete-backup-job710-MARKET_BASKET__C-PRODUCT_V__C.zip

This page displays the status of the job, records that were deleted, and the Veeva Support (Zendesk) ticket that was assigned to the job. The **Hard Delete Records Export FTP** section contains the path to your backed-up records. The filename is unique for each hard delete job; it contains the job ID and objects that were deleted.

Delete the custom object

After Veeva Support has hard deleted the records, you can delete the custom object from the data model. Veeva Support does not delete the custom object when they delete the records. This gives you the option to load new records or to delete the custom object yourself.

On the custom object data model page, the **Delete Object** button is no longer dimmed because the records and tasks have been hard deleted and removed from the database.

Logs

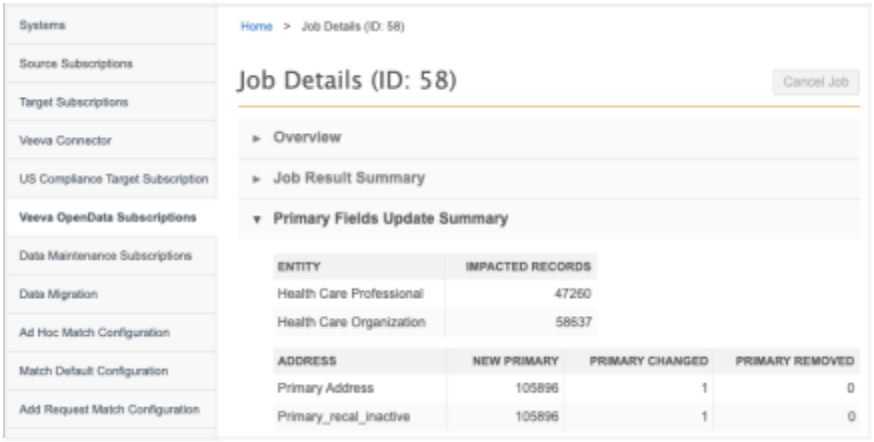
The soft delete and hard delete jobs are tracked in the **System Audit History** (**Logs**).

Subscriptions - General

PRIMARY FIELD UPDATES ON SUBSCRIPTIONS

21R3

Network now provides a summary of the updates that occur on primary fields during subscription jobs. Many customers use primary fields for business purposes like incentive compensation or territory alignment. When changes occur to primary fields, it can impact those processes. After subscriptions run, counts for primary field updates now display in the job details so administrators are aware of the updates and can make necessary changes.



This feature is enabled in your Network instance by default.

Supported primary type fields

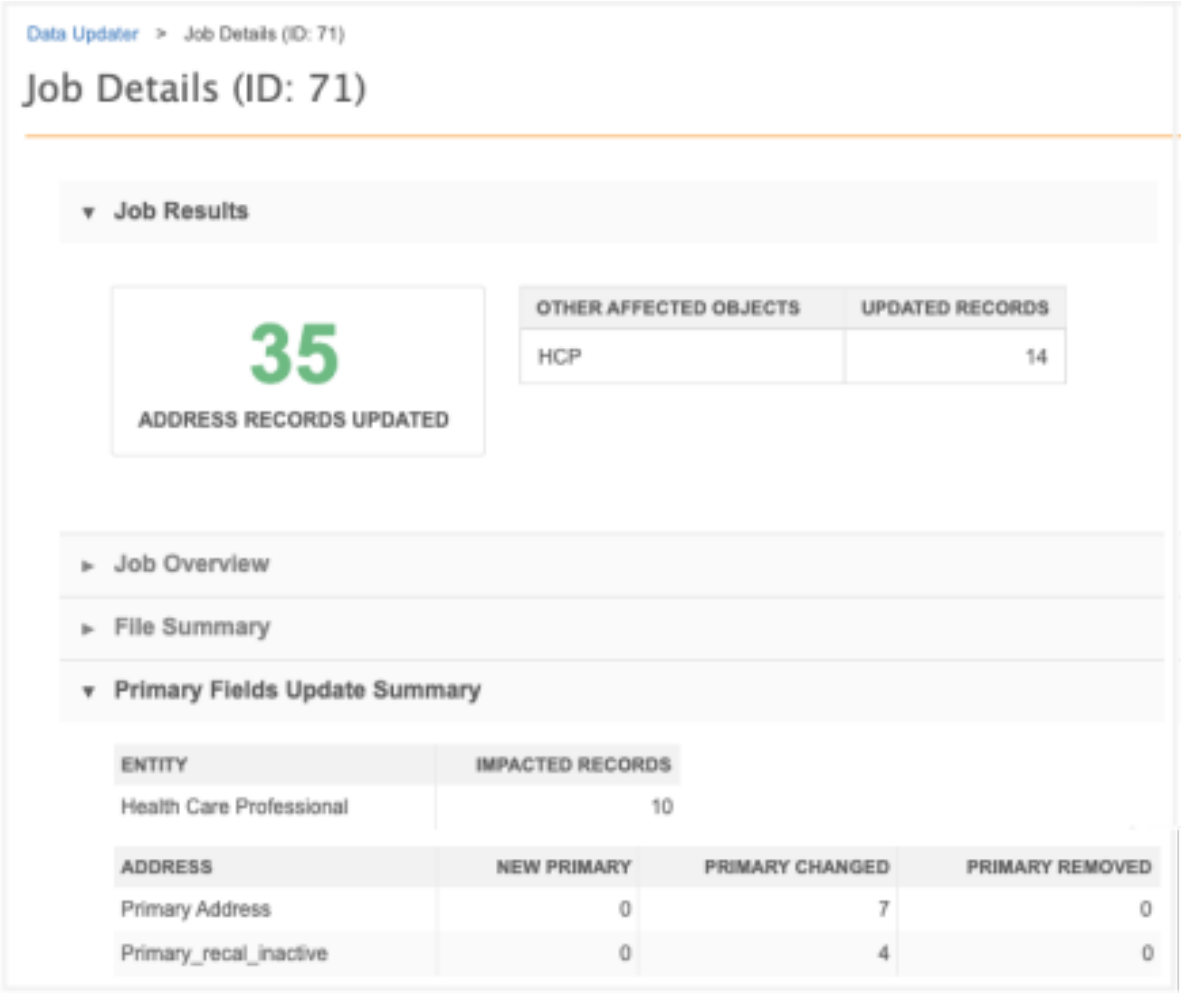
Primary field updates display for the Unique Checkbox primary type field only. The summary and counts do not reflect changes to the Network Calculated primary type field.

Primary fields update summary

The **Primary Fields Update Summary** displays on the Job Details page for following subscriptions:

- Source subscriptions
- Veeva OpenData subscriptions
- Data updater jobs

The **Primary Fields Update Summary** does not display if your Network instance does not have any primary fields defined.



The section summarizes the updates by entity and then provides the details for each sub-object or relationship object that uses a primary field.

Sub-objects and relationship objects

For each object, the enabled primary fields display and they are categorized so you can see how many primaries were added, changed, or removed during the job.

The following actions are tracked:

- **New Primary** - A primary field was assigned to an entity.
- **Primary Changed** - The primary was assigned to an entity but it was moved to another entity during this job.
- **Primary Removed** - The primary was assigned to an entity but during this job it was removed and was not assigned to another entity.

Examples - Calculating counts for updates

Example 1 - New Primary

In this example, an existing record has one address where the primary field is set to NULL. A subscription loads five new addresses for the record that all have the primary set to true. Network calculates the primary and sets one of the new addresses as primary. These updates count as one primary change.

Existing in Network	Update from subscription	Updates in Network	Updates counted in summary
HCP A address_a (primary=NULL)	**HCP A** address_1 (primary=T) address_2 (primary=T) address_3 (primary=T) address_4 (primary=T) address_5 (primary=T)	**HCP A** address_1 (primary=T) address_2 (primary=F) address_3 (primary=F) address_4 (primary=F) address_5 (primary=F) address_a (primary=NULL)	New Primary = 1

Example 2 - Primary Changed

In this example, an existing record has an address already set to primary (primary = T (true)). A subscription loads five new addresses for the record that all have the primary set to true. Network calculates the primary and sets one of the new addresses as primary. These updates count as one primary change.

Existing in Network	Update from subscription	Updates in Network	Updates counted in summary
HCP B address_a (primary=T)	**HCP B** address_1 (primary=T) address_2 (primary=T) address_3 (primary=T) address_4 (primary=T) address_5 (primary=T)	**HCP B** address_1 (primary=T) address_2 (primary=F) address_3 (primary=F) address_4 (primary=F) address_5 (primary=F) address_a (primary=F)	Primary Change = 1

Example 3 - Primary Removed

In this example, an existing record has an address already set to primary (primary = T (true)). A subscription updates the existing address to change the primary value to False. This update counts as one removed primary.

Existing record	Update from subscription	Updates in Network	Updates counted in summary
HCP C address_1 (primary=T)	**HCP C** address_1 (primary=F)	**HCP C** address_1 (primary=F)	Removed Primary=1

Merge considerations

- When entities are merged, if the primary address on the winning record did not change, it is not counted as a primary change. A primary change is only counted with the winning record's primary changes.
- When addresses are merged on a record, a primary change is counted if the primary address is moved to another address.

OpenData subscriptions

GEO SUBDIVISION SUBSCRIPTIONS

21R3

The Geo Subdivision and Geo Subdivision 2 subscriptions are now available for the United Kingdom. These subscriptions contain sales data that is organized into small geographic areas.

If these subscription are added to your OpenData subscription for the United Kingdom, the following fields are automatically enabled on the address object:

- geo_subdivision__v
- geo_subdivision_label__v
- geo_subdivision_2__v
- geo_subdivision_2_label__v

The subscriptions will be available after the 21R3.0 Production release.

For more information, see the Geo Subdivision topic in the *Veeva Network Online Help*.

VEEVA OPENDATA AMA SUBSCRIPTION

21R2.1.3

Beginning January 1, 2022, US Veeva OpenData subscriptions will no longer include American Medical Association (AMA) data. Currently, this data is stored in a list of data model fields on US records. Those fields have been grouped together to form an AMA data subscription which controls the behavior of the fields depending on your agreement with the AMA.

Key dates

- **November 19, 2021** - AMA subscriptions are available in Network instances that have US OpenData subscriptions enabled. It is enabled by default.

  If you will receive AMA data from a different data source, you can begin testing the subscription. Disable the subscription so the Veeva AMA fields become locally managed and create a source subscription to populate those fields.

- **December 15, 2021** - If you will continue to receive AMA data from a different data source, disable the AMA subscription by this date so the existing data is retained in the AMA fields.
  If Veeva is your Database Licensee (DBL), OpenData will disable the subscription for you if it is still active when they begin the process to remove the data.

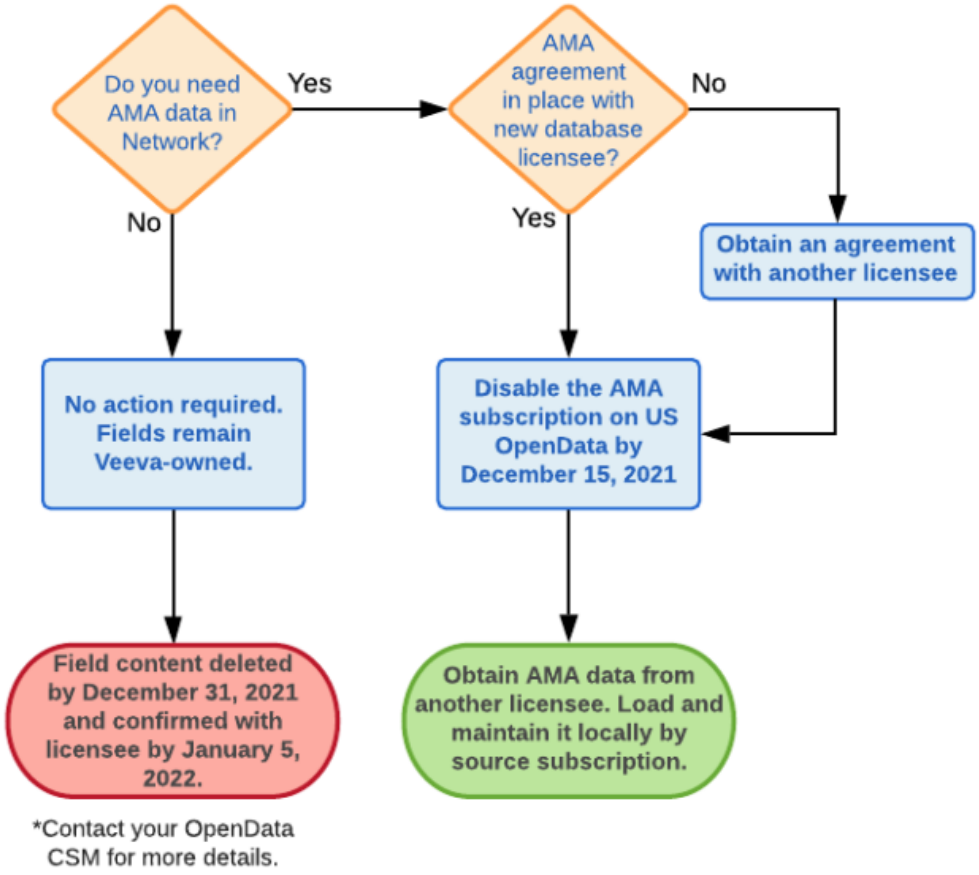
- **December 16-31, 2021** - After December 15, Veeva OpenData will begin removing the contents of the AMA fields. The data will be completely removed by December 31, 2021. If the AMA subscription was disabled prior to this action, the data will be retained.

- **January 5, 2022** - If you canceled your agreement to receive AMA data from a Database Licensee (DBL), send confirmation letter of the data removal to the DBL. Contact your Veeva OpenData CSM for more details.

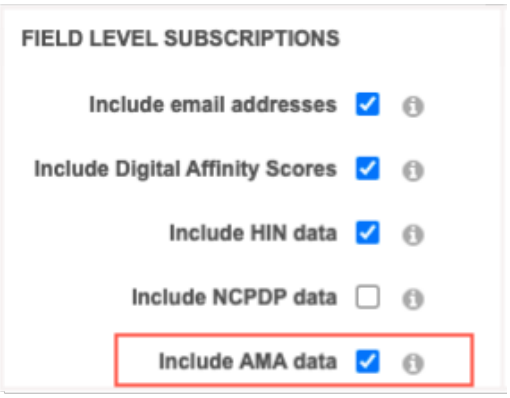
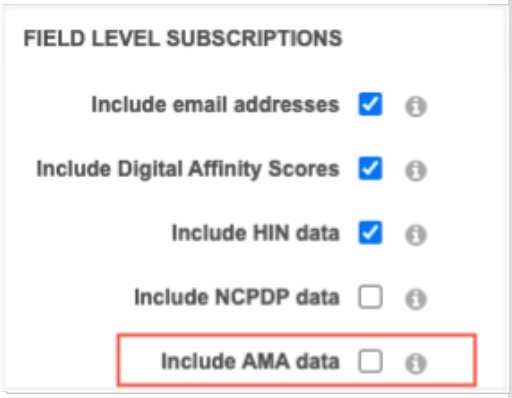
Subscription status

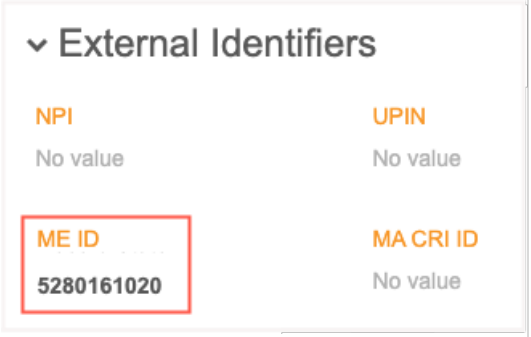
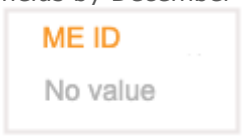
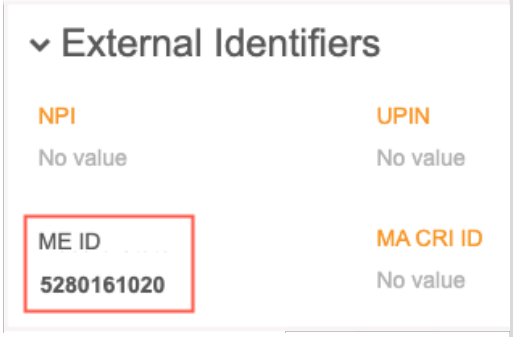
When the 21R2.1.3 release was implemented on November 19, 2021, the AMA subscription was enabled by default if you have a US OpenData subscription enabled in your Network instance.

The AMA subscription should remain enabled or be disabled depending on your agreement with the AMA.



Your AMA agreement status

	Canceled Agreement You will no longer receive AMA data.	**Continued Agreement** You will receive AMA data from another database licensee (DBL).
Network Action Required	The **Include AMA Data** subscription should remain enabled. 	Disable the **Include AMA data** subscription by December 15, 2021. 

	Canceled Agreement You will no longer receive AMA data.	**Continued Agreement** You will receive AMA data from another database licensee (DBL).
AMA subscription behavior	The fields will continue to be OpenData fields.  The existing data will be emptied from the fields by December 31, 2021. 	The OpenData managed fields will become locally managed fields.  The existing data in the fields will be retained if the subscription is disabled by December 15, 2021.
Customer action required	Provide confirmation letter to Database Licensee (DBL) by January 5, 2022.	No action required.
Impact to downstream systems	No field mappings are required. Data in the fields is emptied by OpenData and those updates are sent to downstream systems, as usual.	No field mappings are required. Updates that you make to the data are sent to downstream systems, as usual.

Enabled subscription behavior

The following behavior occurs to the Veeva managed AMA fields and data:

- Veeva OpenData continues to manage the AMA fields.
- In mid-December, OpenData will remove the existing AMA data from the fields, per their agreement with the AMA. You will no longer have access to the data in the fields.
- If data change requests are submitted on the AMA fields after December 31, 2021, they will be rejected. The **Resolution Note** on the rejected request will be:

  ```
  System rejected - You are trying to update a field that is not available in your region. Please contact your administrator to remove the field.
  ```

- You can choose to disable the AMA fields in your Network instance. When the fields are disabled, they no longer display on record profiles and cannot be included in data change requests.

Disabled subscription behavior

The following behavior occurs to the Veeva managed AMA fields and data when the subscription is disabled:

- The AMA fields become locally managed. You now own and manage the fields.
- If the subscription is disabled by December 15, 2021, the existing AMA data remains in the fields for you to own and manage.

  If the subscription is not disabled before that date, Veeva OpenData will begin removing the existing data. You will continue to own and manage the fields, but you will need to load all AMA data again from another data provider.
- The AMA field names will not change; for example, the **ME ID** field remains `me_id__v`. No field mappings need to be adjusted. No new custom fields need to be added.
- Data change requests submitted on AMA fields will be sent to your local data stewards.

  Tip: You might add or update your internal process documents regarding how DCRs on those fields are managed.

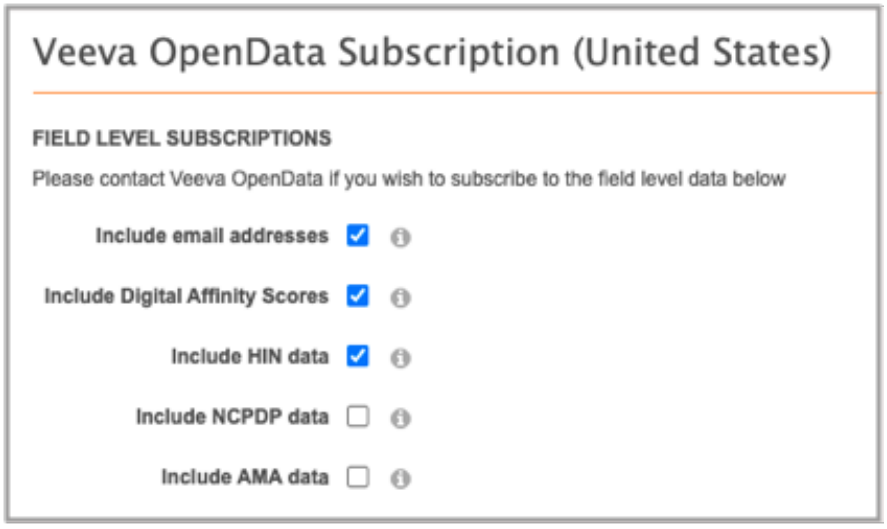
AMA data considerations for OpenData records

- The AMA fields remain on Veeva OpenData records, but they are now locally managed. You will need to load AMA data from another data provider if you want data in those fields on OpenData records.
- If the existing OpenData AMA data is retained in the fields, keep it up-to-date using data from your new AMA data provider.
- Ensure that you load new data into those fields on OpenData records.

Disable the AMA subscription

To disable the subscription:

- In the **Field Level Subscriptions** section on your US Veeva OpenData subscription, clear the checkbox beside **Include AMA Data**.



Fields included in the subscription

The following fields are exclusive to AMA data and will no longer be managed by OpenData if you disable the AMA subscription.

If you have canceled your AMA agreement, the fields can also be disabled.

	Field Name	Localized UI Label	Field Type
1	alternate_first_name__v	Alternate First Name	String
2	alternate_last_name__v	Alternate Last Name	String
3	alternate_middle_name__v	Alternate Middle Name	String
4	ama_do_not_contact__v	AMA Do Not Contact?	Reference
5	birth_country__v	Birth Country	Reference
6	education_level__v	Education Level	Reference
7	fellow__v	Fellow	Reference
8	grad_school__v	Graduation School	String
9	grad_training__v	Grad Training?	Reference
10	grad_trg_end_date__v	Grad Training End Date	Date
11	grad_trg_start_date__v	Grad Training Start Date	Date
12	me_id__v	ME ID	String
13	mpa__v	Major Professional Activity	Reference
14	pdrp_optout__v	PDRP Opt Out?	Reference
15	pdrp_optout_date__v	PDRP Opt Out Date	Reference
16	place_of_employment__v	Place of Employment	Reference
17	type_of_practice__v	Type of Practice	Reference
18	years_in_progress__v	Years in Progress	Number

Loading AMA data from other data sources

See the Veeva OpenData AMA subscription topic in the *Veeva Network Online Help* for the following information:

- Transforming raw AMA data.
- Loading AMA data from another data provider into Network.

DIGITAL AFFINITY SCORE SUBSCRIPTION

21R2.1.3

Veeva OpenData subscriptions for the United States contain the option to receive a score that indicates an HCP's affinity for consuming digital data. This subscription is available to customers whose US OpenData contract allows them to download unlimited records.

There is no extra cost for enabling this subscription and receiving this data.

Enable the Digital Affinity Score subscription

The **Include Digital Affinity Scores** subscription can be enabled in your US OpenData subscription. If the subscription is available for your OpenData contract, select the option in the **Field Level Subscriptions** section and then save the subscription.

Data model fields

Administrators or Data Managers must enable the following fields to support this subscription:

- `affinity_score_overall_digital__v`
- `affinity_score_brand_site__v`
- `affinity_score_health_content__v`

These fields are part of a field set.

To enable the fields:

1. In the Admin console, click **Data Model** and choose the **Customer Master** data domain.
2. Select **Health Care Professional** in the **Objects** section .
3. In the **Fields** section, find one of the fields in the set and toggle the **Status** bar to **Enabled**.

   All of the fields in the set will be enabled.

When the HCP fields are enabled and the subscription is enabled, Veeva OpenData will manage the fields and data.

MAIL ONLY ADDRESSES

21R2.1

Mail only addresses on Veeva OpenData records can now be invalidated automatically. Network Expression rules can be used to invalidate these addresses after they are downloaded from Veeva OpenData but if the addresses are merged into other addresses in the OpenData instance, those updates will not occur in your Network instance. Using this feature, mail-only addresses from OpenData subscriptions, ad hoc download jobs, and change requests are automatically updated to the INVALID record state after merge updates. Additionally, the feature ensures that invalid addresses are not set as primary addresses. Custom keys are not inactivated when mail-only addresses are invalidated.

This feature is not enabled by default. To enable the feature, contact Veeva Support.

Important: Before the feature can be enabled, any Network Expression rules that drop or invalidate mail only addresses must be removed from your Network instance. Create a Veeva Support ticket to have the rules removed.

Source subscriptions

CONFIGURING CUSTOM KEYS

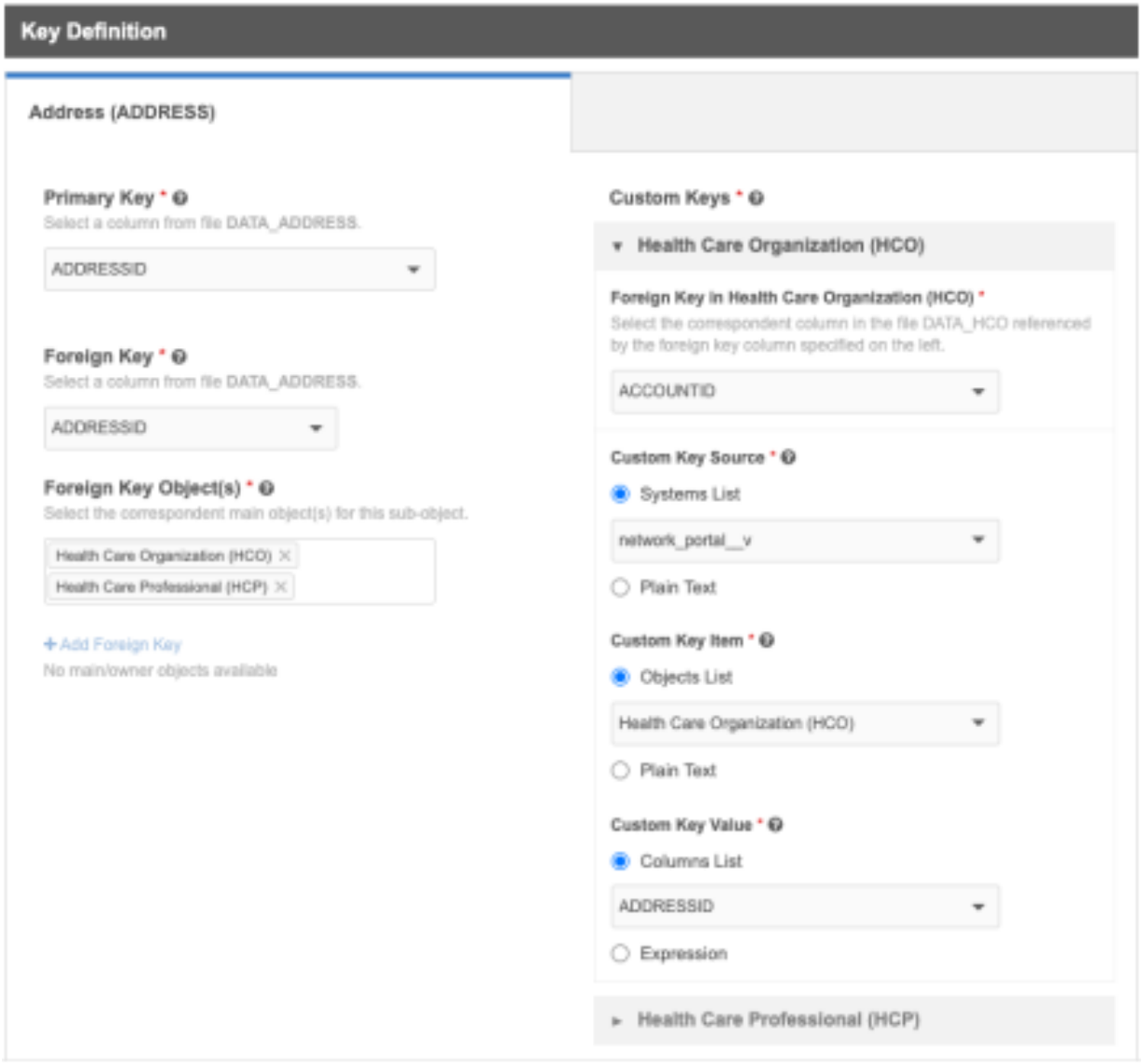
21R3

Administrators can now configure multiple custom keys for sub-objects and relationship objects in the source subscription wizard. Sub-objects and relationship objects can be associated to more than one main entity. To avoid duplicate key errors when the subscription runs, the **Select Keys** step in the wizard is updated to provide a custom key configuration for each associated main object.

This enhancement is enabled by default in your Network instance.

Creating custom keys for sub-objects

When a file contains sub-objects without main objects or with two or more main objects, you must specify the owning main objects in the **Foreign Key Objects** field.



After the main objects are defined, the **Custom Keys** panel displays. Each main object is contained in its own section. In this section, define the custom key for the sub-object for each main object.

Expand the section and define the following settings:

- **Foreign Key in <Object>** - Choose the column on the main object file that is used to JOIN the sub-object.
- **Custom Key Source** - Choose **Systems List** to select the source system for this subscription or select **Plain Text** to type a value. For example, for a CRM custom key, you might type *ACCOUNT*.
- **Custom Key Item** - Choose **Object List** to select the main object for the value or choose **Plain Text** to type a unique value.
- **Custom Key Value** - Typically, the custom key value is an external ID. Choose **Columns List** to select a column from the file or choose **Expression** to use a Network Expression to create the value.

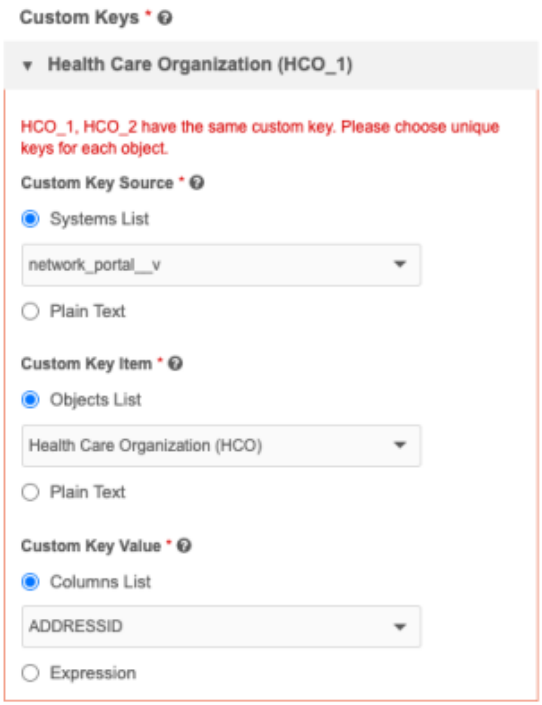
Expand the next main object and define the custom key settings for that object.

Unique custom keys

If you have multiple main objects of the same type; for example, two HCOs as main objects, a warning will display if the defined custom keys are identical. To ensure the custom keys are unique, you might choose to type a plain text value for the **Custom Key Item** setting instead of using the default object name. For example, you could type `HCO_1_ADDRESS`.

Example custom keys for an address object:

- CRM:**HCP_ADDRESS**:ID
- CRM:**HCO_1_ADDRESS**:ID
- CRM:**HCO_2_ADDRESS**:ID

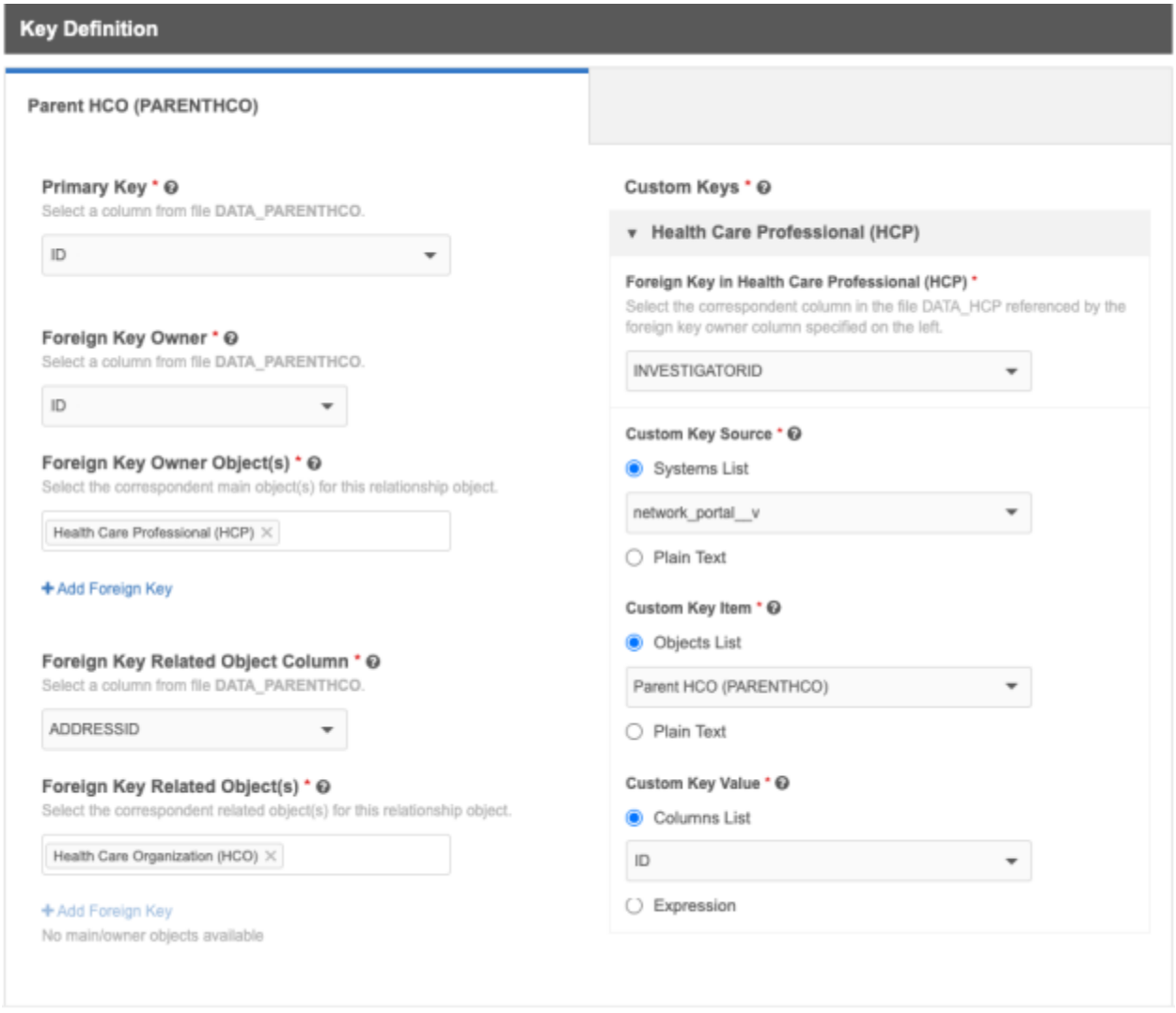


Files with one sub-object and one main object

When a file contains one main object and a sub-object, the **Foreign Key Objects** setting does not display because Network identifies the owner as the main object in the file. The main object does not display in the **Custom Keys** panel for the same reason. Only one custom key is required for the sub-object.

Creating custom keys for relationship objects

Relationship objects contain owner objects and related objects. When a file contains relationship objects without main objects or with many main objects, the **Custom Keys** panel displays when you select a main object in the **Foreign Key Owner Objects** field. If you select more than one main object as the owner object, each object displays in the **Custom Keys** panel.



Expand the section and define the following settings:

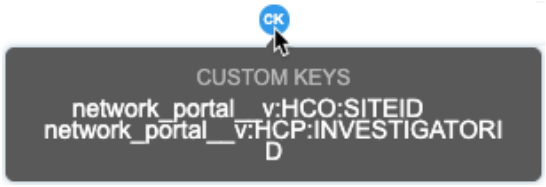
- **Foreign Key in <Object>** - Choose the column on the owner object file that is used to JOIN the relationship object.
- **Custom Key Source** - Choose **Systems List** to select the source system for this subscription or select **Plain Text** to type a value. For example, for a CRM custom key, you might type *ACCOUNT*.
- **Custom Key Item** - Choose **Object List** to select the main object for the value or choose **Plain Text** to type a unique value.
- **Custom Key Value** - Typically, the custom key value is an external ID. Choose **Columns List** to select a column from the file or choose **Expression** to use a Network Expression to create the value.

Files with one relationship object and one main object

When a file contains one main object and a relationship object, the **Foreign Key Owner Object** setting does not display because Network identifies the owner as the main object in the file. Only one custom key is required for the relationship object.

Custom keys on Field Mapping

The **Field Mapping** step includes the custom key (**CK**) icon on each object tab. The custom key preview is updated to display all of the custom keys that you've defined for each main object. Hover over the icon to view the custom keys.



NETWORK EXPRESSIONS

21R2.1

A new function, SETI, can be used in source subscriptions to help load dynamic attribute data from Veeva CRM.

```
SETI(field, value)
```

Example

Incoming file

A file from Veeva CRM includes columns for dynamic attributes.

VID	Dynamic_Attribute_Name_vod__c	Dynamic_Attribute_Value_Checkbox_vod__c
929348577348723909	Key_Account	TRUE
929348674539980761	Key_Account	FALSE

NEX rule

In the source subscription, create a File Preparation rule.

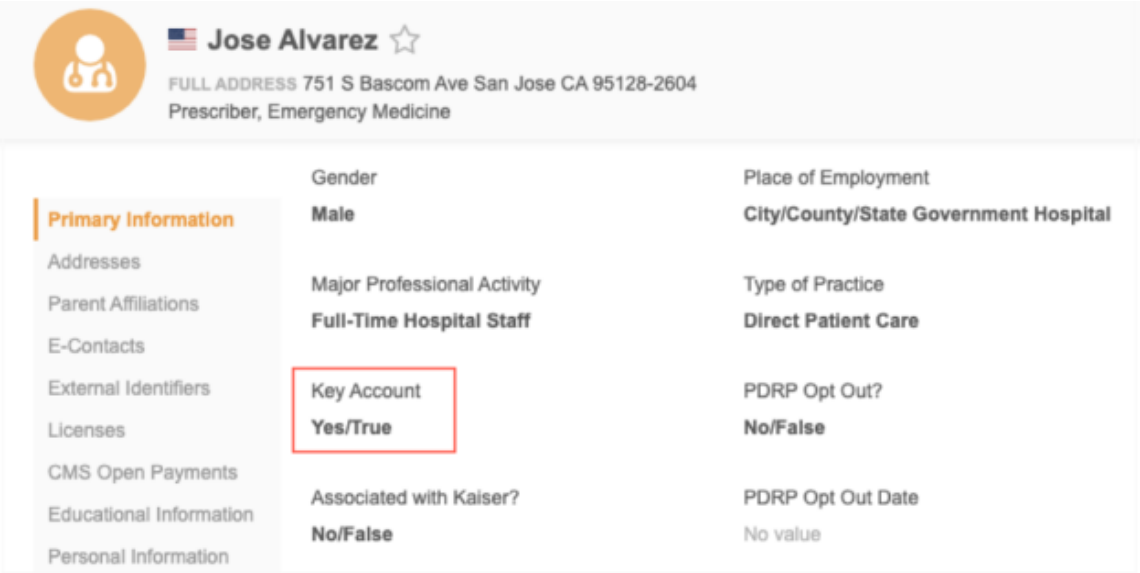
To map the dynamic attributes field names to Network field names, in the file preparation stage, create a new attribute called `field`. In this case, we map the dynamic attribute, `key_account`, to `key_account__c`. Then, use the SETI function to set the value of the custom Network field using the dynamic attribute value.

- **Field** is set to `Key_Account`.
- **Dynamic_Attribute_Value_Checkbox_vod__c** is set to `True` or `False` (checkbox field).

  Source aliases are used to convert the `True/False` values to Network reference codes (`Y`,`N`)

```
[
     "field =if(Dynamic_Attribute_Label_vod__c == 'Key_Account',
'key_account__c')",
     "seti(field, Dynamic_Attribute_Value_Checkbox_vod__c)"
 ]
```

If the field has been added to the profile layout, it displays so users can view the data.



About dynamic attributes

Dynamic attributes are special Veeva CRM fields created for an immediate business need; something that would not require a custom field. For example, business admins might collect information for an account for an upcoming conference.

Dynamic attributes can be extracted from CRM using the Veeva Connector. This is a one-way integration from Veeva CRM to Network.

Tip: The field should be read-only in Network so it cannot be updated.

For more information about dynamic attributes, see Dynamic Attributes for Accounts in the *Veeva CRM Online Help*.

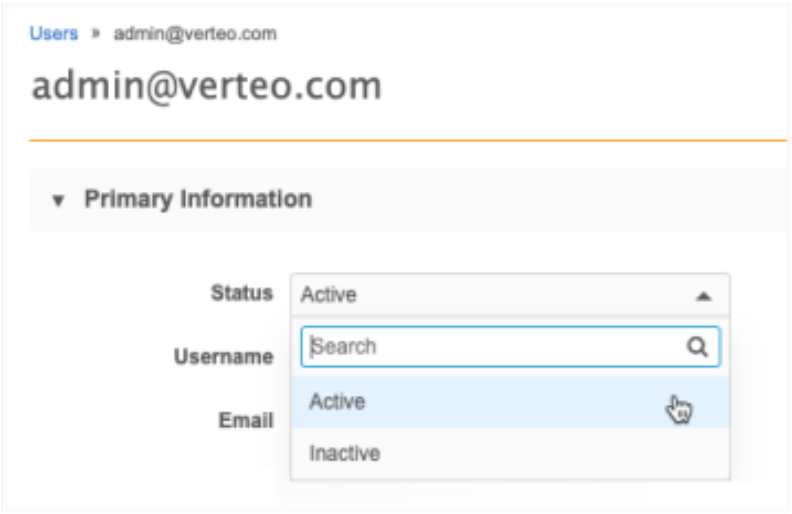
Users

User status

21R2.1

For consistency, the **Status** label on Network user accounts has been changed from **Disabled** to **Inactive**.

The two user status options are now **Active** and **Inactive**.

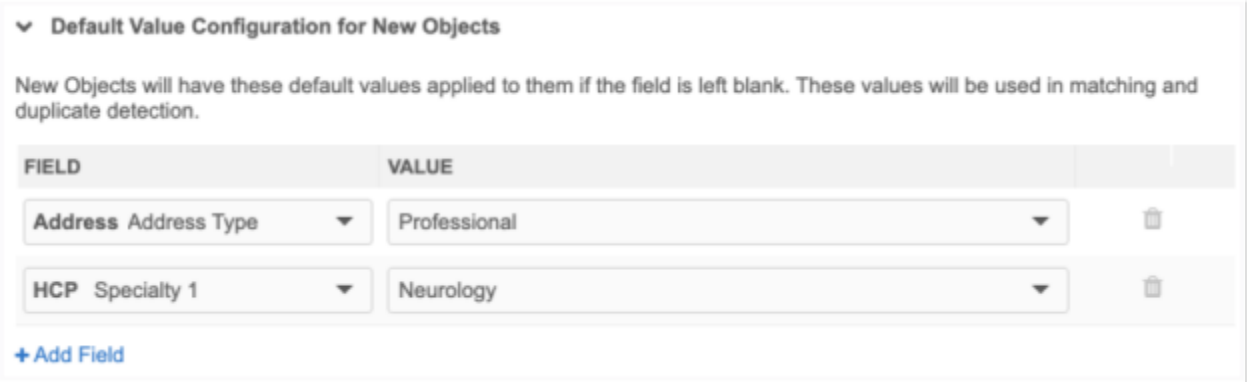


Admin settings

DEFAULT VALUES FOR NEW RECORDS

21R3

Default field values can be automatically added when new object requests are submitted without a value. Administrators can define default values for fields in the workflow settings. When requests to add an object are submitted without values for these fields, the workflow defined default value is added when the task is created.

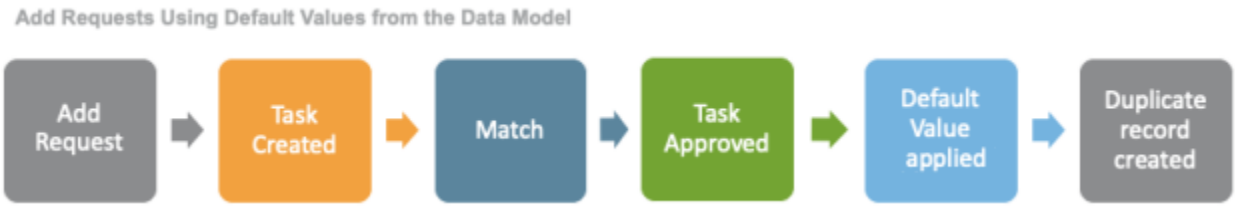


This feature is enabled by default in your Network instance.

Prevent duplicate records

Adding default values can prevent duplicate records from being created.

When a new object is submitted without a field value, the default value from the data model is applied, if available, when the task is approved. It does not display when data stewards are processing the request and it is not used for matching, so a duplicate record could be created.



Using this new workflow setting, the default value is applied when the task is created, so it is used during matching. Data stewards can override the field value when they process the task .

Support for feature

- **New records** - Default values are applied to new records or new sub-objects on existing records. If the new record or object is matched to an existing record, the value remains on the change request.
- **Requests created** - This supports add requests that are submitted through the Network UI and API and through Veeva CRM using the Network Bridge.
- **Objects** - Default values can be applied to Veeva objects. If a custom sub-object exists on a standard object (for example, a new HCP), the default value can be applied to the sub-object.
- **Fields** - The default value is applied only when the field does not contain a value. Only reference type fields are supported.
- **Stewardship** - Default values are applied to data change requests that are sent to local data stewards or Veeva OpenData stewards. However, default values that are custom reference values are not sent to OpenData.

Adding default values

Administrators can add default values to the Workflow Settings.

1. In the Admin console, click **Settings > Workflow Settings**.
2. In the **Default Workflow Settings** section, scroll to the **Default Value Configure for New Objects** heading.
3. Click **Add Field**.
4. Expand the list in the **Field** column and choose the object and field. Only reference type values are supported.
5. Expand the field in the **Value** column to define the default value.
6. **Save** your changes.

When a DCR is created for a new object, the workflow will populate the field with this default value if a value was not provided.

Network integrations

TARGET SUBSCRIPTION WARNINGS

21R2.1

Detailed warnings now display in your Network Bridge configuration if you link the Bridge to an incorrectly configured target subscription. The warnings will prevent data issues in Veeva CRM.

Common issues for target subscriptions

- The **Record State** setting is set to **Valid & Under Review**

  Records that are INVALID or MERGE_INTO state are not sent downstream so merges don't occur; duplicate records will be created in Veeva CRM.

- The **Full Data Extract** setting is set to **Full** instead of **Delta**

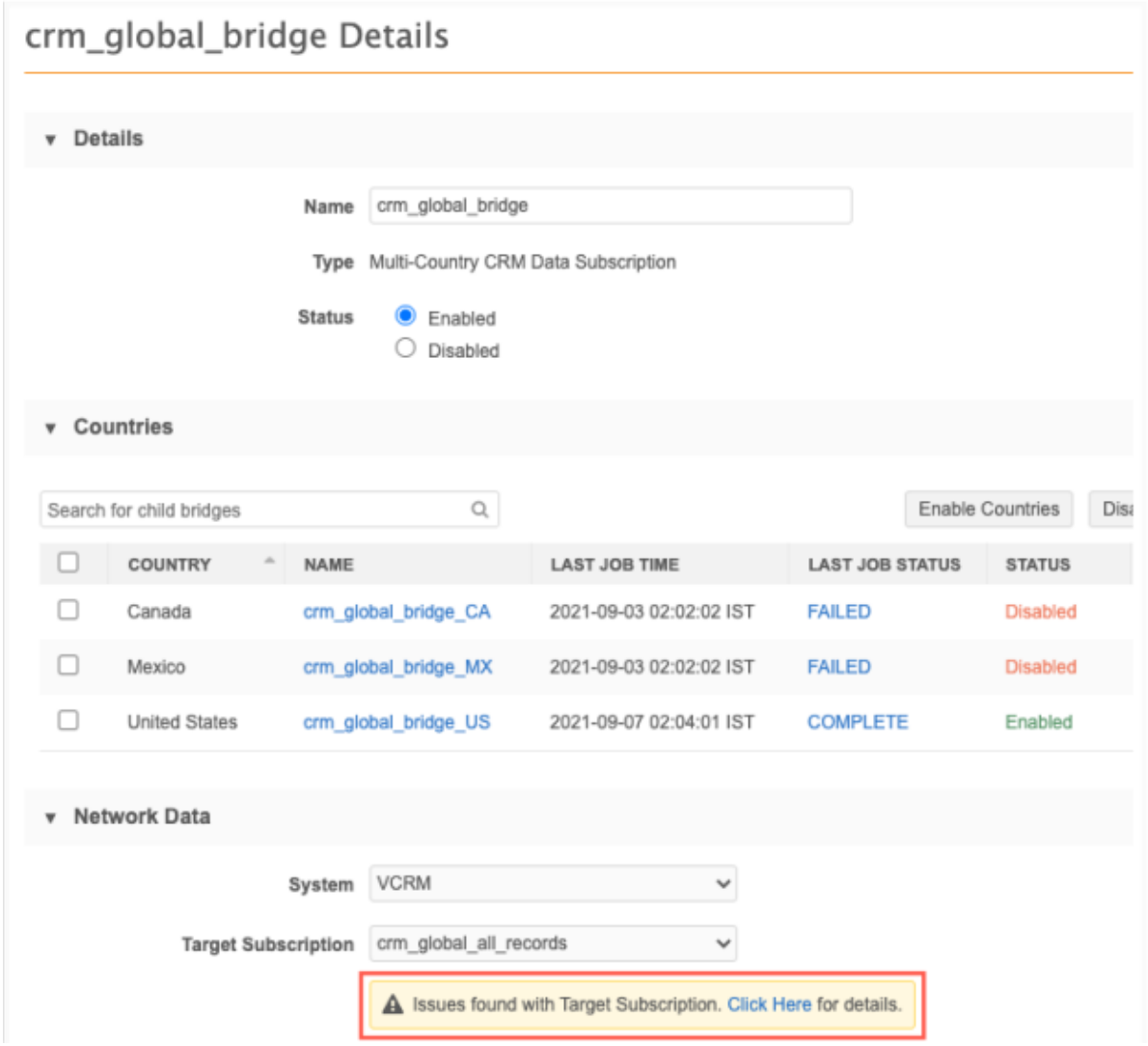
  When you export the full set, entities that haven't changed are continually sent to Veeva CRM. This increases the Network Bridge job time and increases the time to sync and download to mobile devices.

When these issues are identified for the target subscription that you link to your Network Bridge, the warnings display in your Network Bridge configuration so you can make changes.

This enhancement is enabled in your Network instance by default.

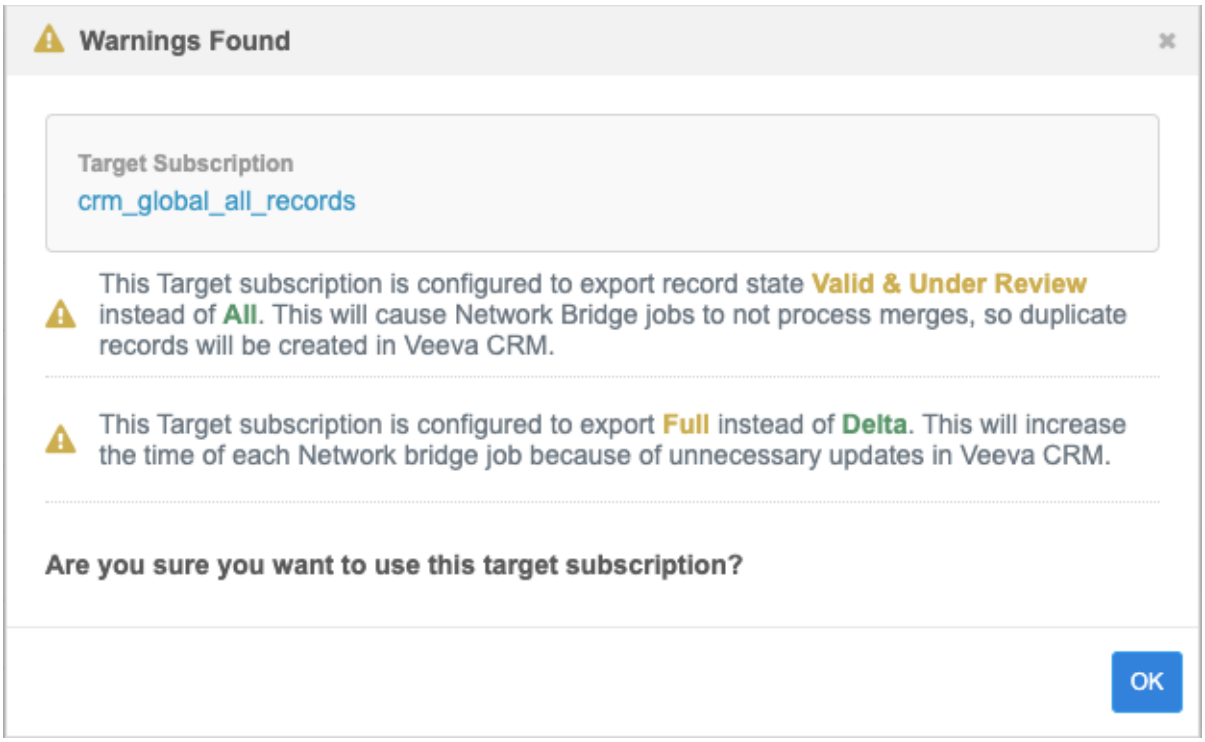
Network Bridge

When you select the target subscription for your Network Bridge configuration, a warning displays if an issue is identified. Click the link to view the details.



A dialog opens to provide more details about the warnings. Click the name of the target subscription to open the subscription details.

Click **OK** to close the dialog. You can choose a different target subscription or keep the defined subscription understanding that possible issues can occur.



Note: The warning behavior is the same for single country Bridges and multi-country bridges.

Network Bridge error log

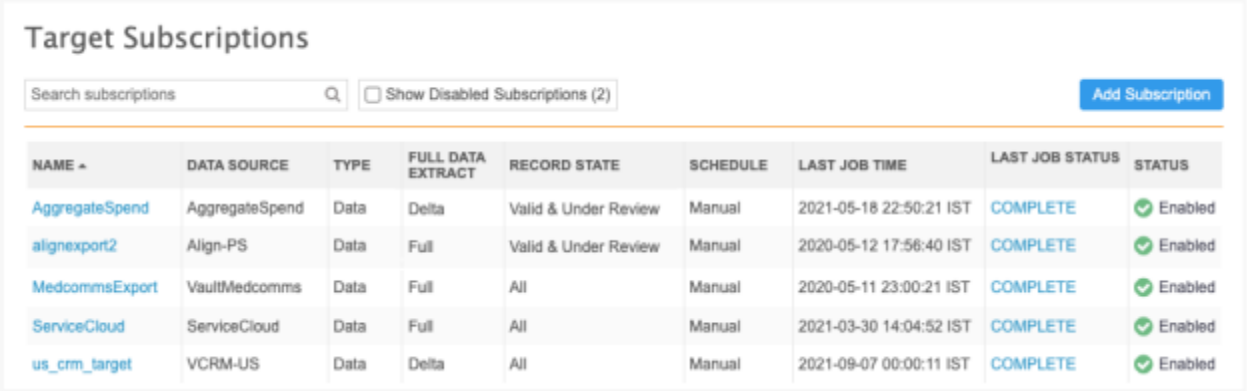
The error log that you can download from the Network Bridge Job Details page is updated to include the ID for the Bridge job. Previously, the **job_id** column in the error log contained the ID of the target subscription job. Now, the **job_id** column contains the Bridge job ID and a new column, **target_subscription_job_id**, contains the target subscription job ID.

A	B	C	D	E	F	G	H	I	J	K
job_id	target_subscription_job_id	country_code	source_object	network_id	custom_ic	network	crm_fielc	error_category	error_details	
4361	4358	US	PARENTHCO	930201101856016312				Salesforce Upsert Erro	INVALID_FIELD	
4361	4358	US	PARENTHCO	93020110187299012				Salesforce Upsert Erro	INVALID_FIELD	
4361	4358	US	PARENTHCO	690209393555379216				Salesforce Upsert Erro	INVALID_FIELD	
4361	4358	US	LICENSE	24324715254382696				Salesforce Upsert Erro	REQUIRED_FIE	
4361	4358	US	LICENSE	243244003888202805				Salesforce Upsert Erro	REQUIRED_FIE	
4361	4358	US	LICENSE	243396363558061058				Salesforce Upsert Erro	REQUIRED_FIE	
4361	4358	US	LICENSE	931556149373110176				Salesforce Upsert Erro	REQUIRED_FIE	
4361	4358	US	LICENSE	931550693370234783				Salesforce Upsert Erro	REQUIRED_FIE	

Target subscriptions

The table on the Target Subscriptions page now includes two new columns to help you easily identify the extract and state for each subscription.

- **Full Data Extract** - Identifies subscriptions as **Full** or **Delta** extracts
- **Record State** - Specifies if the subscription will export records with **All** record states or just those records that are **Valid & Under Review**.



RECORD LEVEL NETWORK BRIDGE ERRORS

21R2.1

Administrators can now report on record level errors in Network Bridge jobs. Previously the Network Bridge job stats were not recorded in reporting. Now, you can query the data and error types for each Bridge job in the SQL Query Editor.

This enhancement is available by default in your Network instance.

Note: The Network Bridge job stats are available for Bridge jobs that started after the version 21R1.1 release.

Reporting on jobs with issues

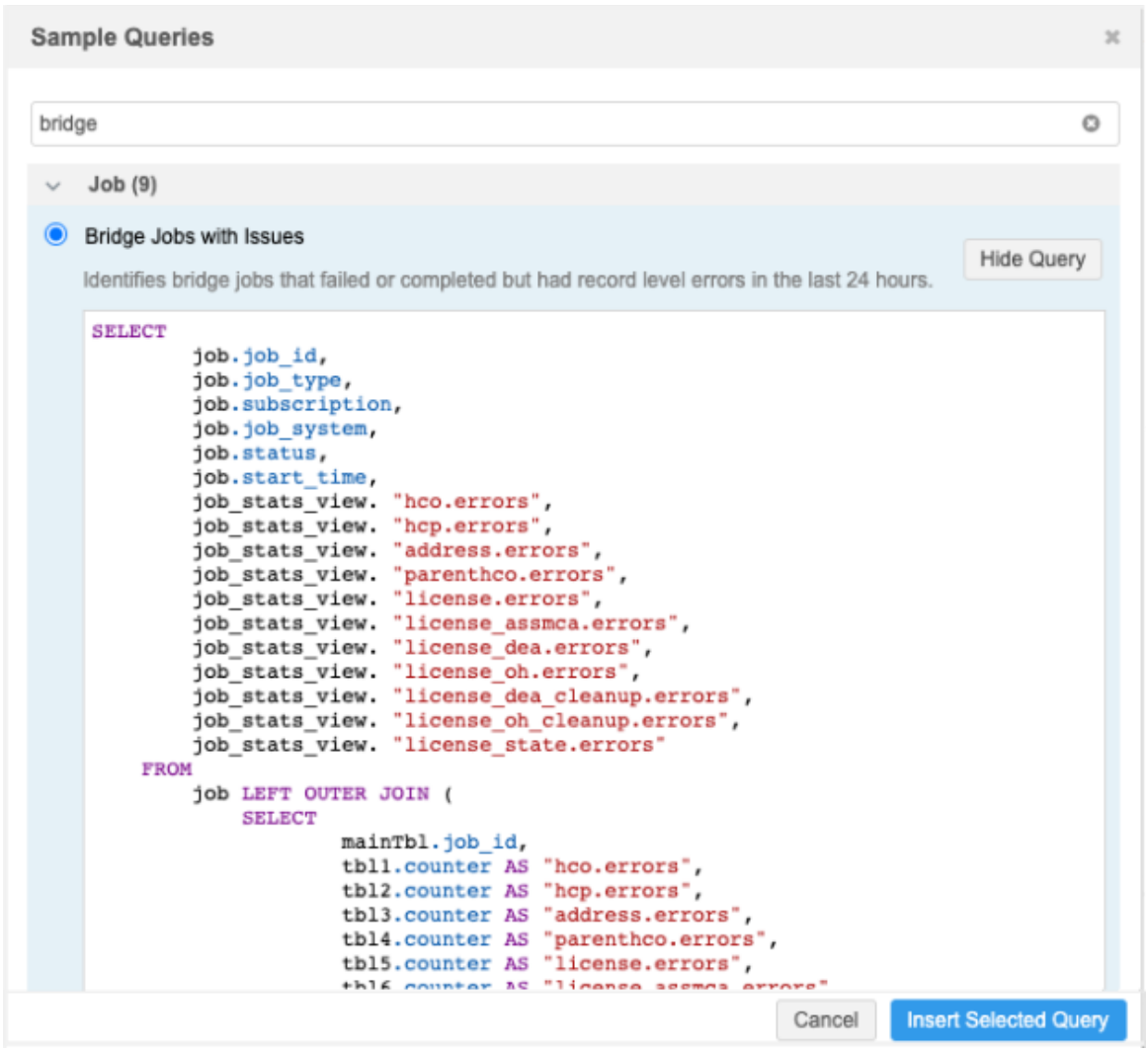
Job triggers can notify you when jobs fail, but they don't notify you about completed jobs that have errors. A sample query, **Bridge Jobs with Issues**, is now available so you can report on Network Bridge jobs that have failed or completed in the last day with record level errors. You can use this query as it is or customize it to get more granular record type errors.

Tip: Save the query as a saved report so you can schedule it to run and to be notified when there are errors.

The data from Network Bridge jobs is available in Network Reports almost immediately after the job has run.

To use this query:

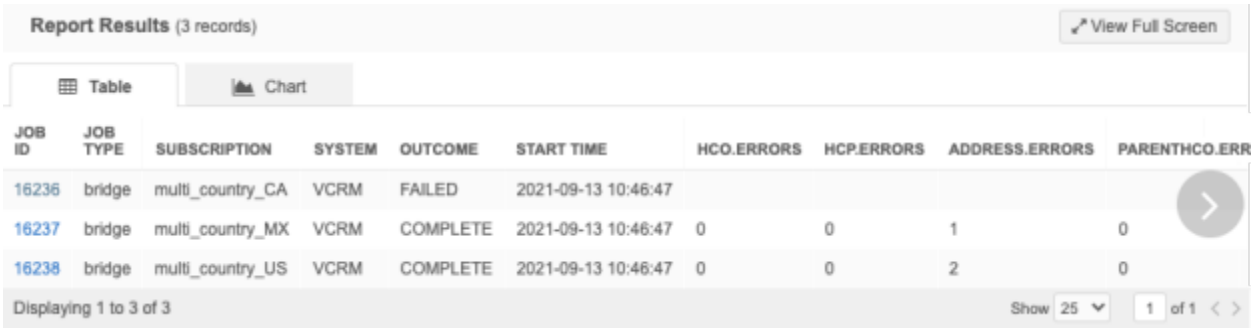
1. On the Network menu, click **Reports > SQL Query Editor**.
2. In the query box, click the **Sample Queries** button.
3. Use the search bar to find the **Bridge Jobs with Issues** query.
4. Select the query and click **Preview Query** to review it.
5. To use the query, click **Insert Selected Query**.



The query will be added to the SQL query box. A green checkmark displays at the bottom to indicate that the query is valid.

6. Click **Run Query**. The results display below the query box.

   Any Network Bridge jobs that ran in the last 24 hours and failed or completed with record level errors will display.

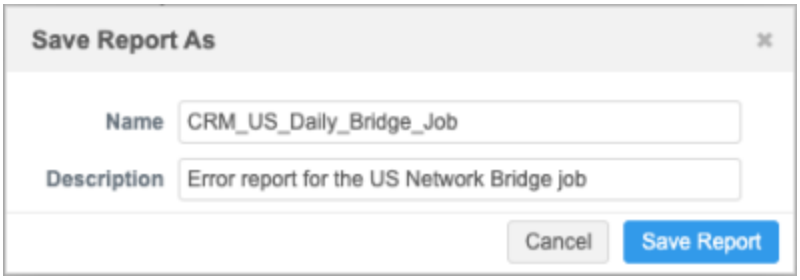


Notifications for record level errors

You can save your queries as saved reports so the report can be scheduled to run after a Network Bridge job. You can also choose to receive an email notification when report results are created. For example, save the **Bridge Jobs with Issues** sample query and schedule it to run daily after your Network Bridge job runs so you can be notified if record level errors occur.

To save the report:

1. In the SQL Query Editor, insert the query into the query box and click **Save Query**.
2. On the **Save Report As** dialog, type a **Name** and **Description**. Click **Save Report**.

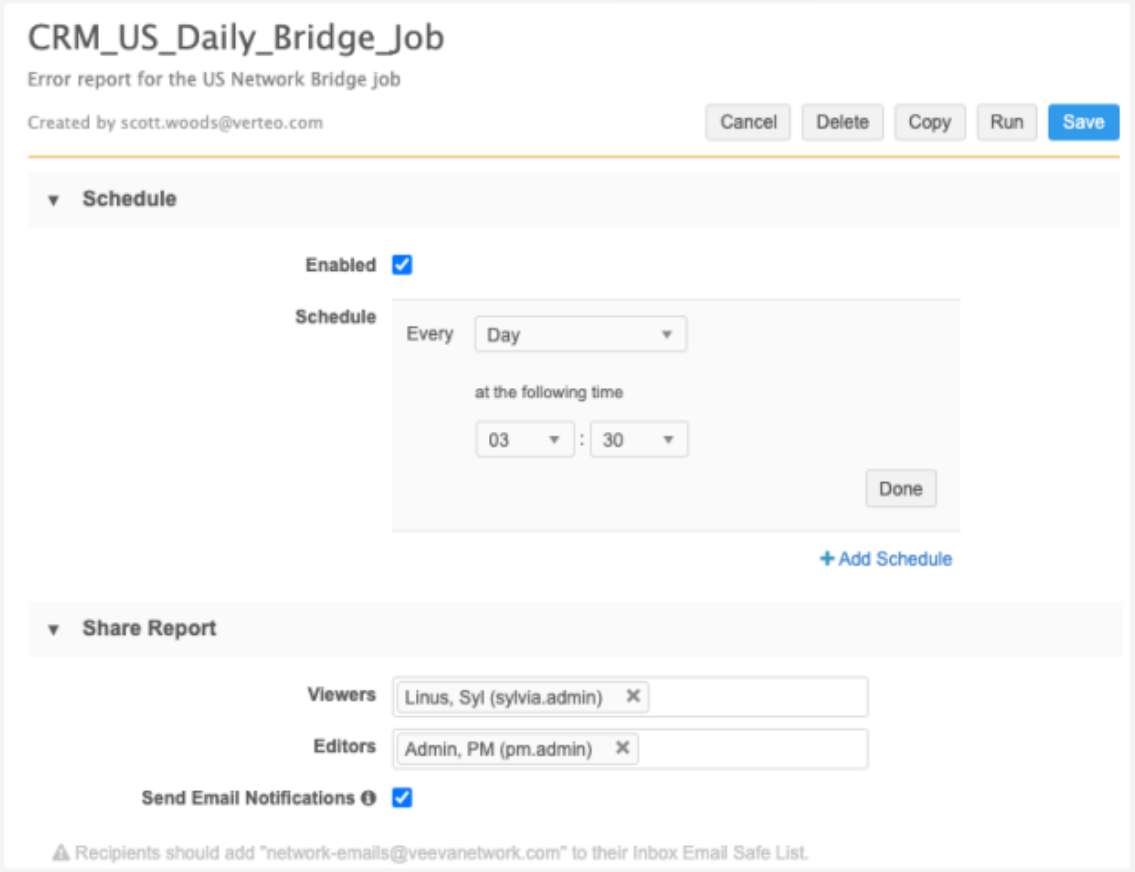


   The saved report configuration page displays.

3. In the **Schedule** section, click **Enabled** and choose the schedule. For example, if your Network Bridge job runs daily, schedule the report to run every day at a specific time (for example, 30 minutes after the Bridge job typically completes).
4. In the **Share Report** section, add users to the **Viewers** and **Editors** fields. These users will have access to view or edit the report.
5. Click **Send Email Notification** so the users will be notified when the report has run. The report details will not be included in the email notification. Users must log into Network to view the details.

   Note: The Bridge Job with Issues is configured to have results only if the Bridge job has failed or completed with record level errors in the past 24 hours. If there are no results, the email notification is not sent.

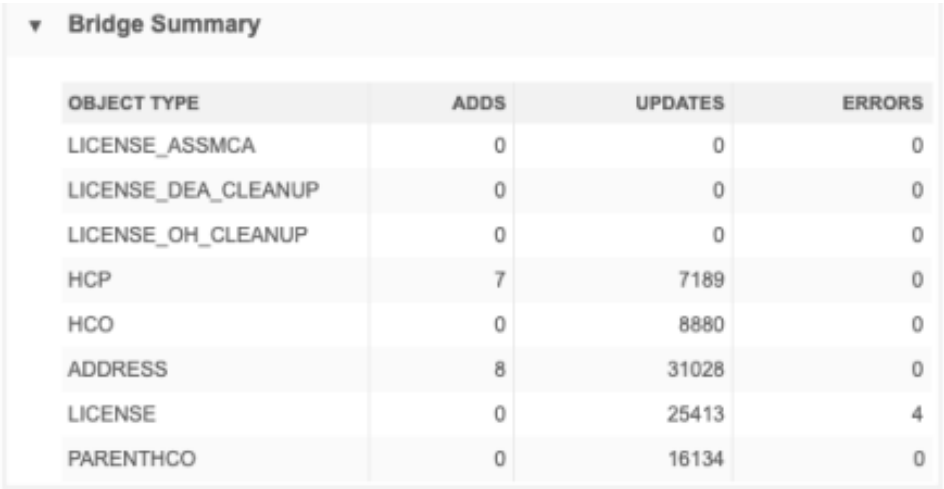
6. Continue configuring the saved report to specify your download preferences and click **Save**.



This report will now run every day. If a Network Bridge job completes or fails with errors, an email notification will be sent to the specified users.

Network Bridge stats

If you want to create your own query, the data from the **Bridge Summary** section on the Job Details page is available to report on in the SQL Query Editor.

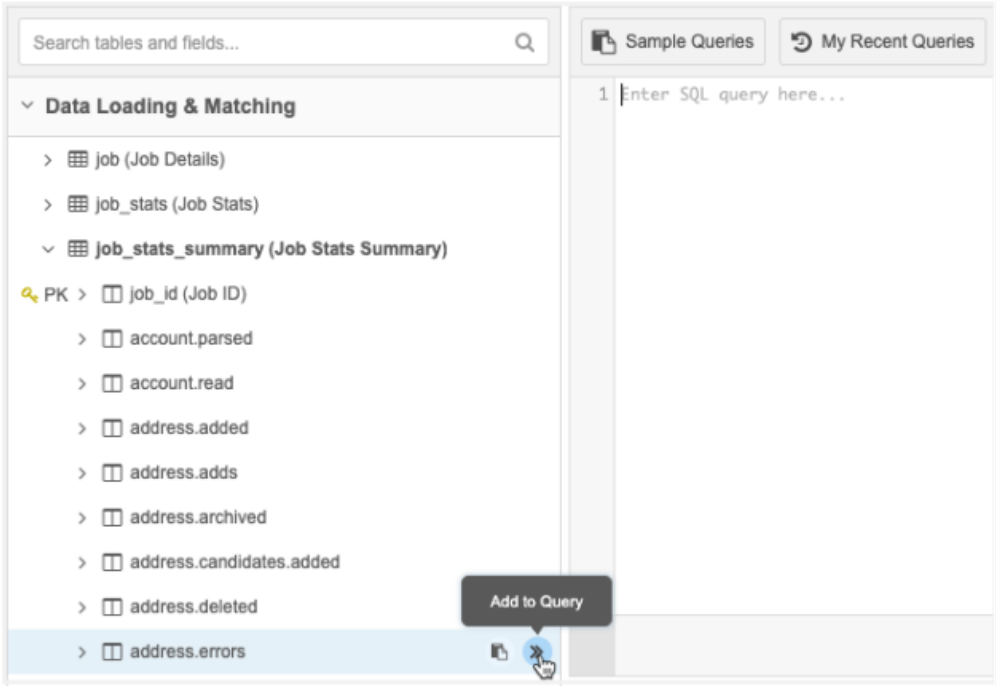


Bridge Summary

OBJECT TYPE	ADDS	UPDATES	ERRORS
LICENSE_ASSMCA	0	0	0
LICENSE_DEA_CLEANUP	0	0	0
LICENSE_OH_CLEANUP	0	0	0
HCP	7	7189	0
HCO	0	8880	0
ADDRESS	8	31028	0
LICENSE	0	25413	4
PARENTHCO	0	16134	0

To query on the job stats:

1. In the tree view in the SQL Query Editor (**Reports**), click the **Data Loading & Matching** section.
2. Expand the **Job Stats Summary** section. The job stats are listed in alphabetical order. Highlight the job stat and click the Add to Query icon to move the column into the query box.



For more information about creating queries, see Building reports with SQL queries in the *Veeva Network Online Help*.

Job stats by object

The following metrics are available for each object in the **Job Stats Summary** reporting table.

HCP	HCO	Address	License	Parent HCO
hcp.adds hcp.updates hcp.errors	hco.adds hco.updates hco.errors	address.adds address.updates address.errors	license.adds license.updates license.errors license_assmca.adds license_assmca.updates license_assmca.errors license_dea_cleanup.adds license_dea_cleanup.updates license_dea_cleanup.errors license_oh_cleanup.adds license_oh_cleanup.updates license_oh_cleanup.errors	parenthco.adds parenthco.updates parenthaco.errors

Additionally, there are two error type metrics that can be used:

- errortype.unable_to_delete_address
- errortype.salesforce_upsert_error

Error category stats

You can also use the following error type metrics to query the error category statistics for each Network Bridge Job. For example, you might want to know only when APEX or locking errors occur.

- errortype.locking_error
- errortype.mapping_error
- errortype.salesforce_upsert_error
- errortype.system_limit_exception_apex_limit_error
- errortype.system_limit_exception_too_many_query_rows_error
- errortype.trigger_flow_error
- errortype.unexpected_error_while_processing_bulk-api

Use these metrics to report on more granular record type errors.

Security

SSL CERTIFICATE UPDATE

21R3

The current SSL certificate for `veevanetwork.com` expires on January 1, 2022. The new certificates are listed below.

Only customers who explicitly download and install certificates on any site caches or proxy servers must update their certificates.

veevanetwork.com certificate

Installing this certificate covers all Sandbox and Production Network instances and `login.veevanetwork.com`.

```
-----BEGIN CERTIFICATE-----
MIIG0zCCBbugAwIBAgIQA6/PlrI29RM76Usoi3c2KjANBgkqhkiG9w0BAQsFADBP
MQswCQYDVQQGEwJVUzEVMBMGA1UEChMMRGlnaUNlcnQgSW5jMSkwJwYDVQQDEyBE
aWdpQ2VydCBUTFMgUlNBIFNIQTI1NiAyMDIwIENBMTAeFw0yMTEyMDIwMDAwMDBa
Fw0yMzAxMDIyMzU5NTlaMHExCzAJBgNVBAYTAlVTMRMwEQYDVQQIEwpDYWxpZm9y
bmlhMRMwEQYDVQQHEwpQbGVhc2FudG9uMRswGQYDVQQKExJWZWV2YSBTeXN0ZW1z
IEluYy4xGzAZBgNVBAMMEioudmVldmFuZXR3b3JrLmNvbTCCASIwDQYJKoZIhvcN
AQEBBQADggEPADCCAQoCggEBAMjH5zR22T1NdIjUL6ZG/LJYO6uQKoywS+RaenU4
n9tiKwyhhfYkxJOa0uLfGLy9mOAHQZ8sdg+xIayLNQqiO84GQLiS8LTcjCN/D+gw
/BtlE44Zi7F6M46jMPABppNbFCZ4JopNkr8F91hlW0zcnUVruvealat32SUF6bV7
zDSy2QYMe7jEzOjsXURRNLS9P70cOKRr+lKl7IpDpD8DRVfnTjw1gNcqCKjt5E3I
Nysdprp5rf3YkRLCJnkCJ8wxabthKmSIjShluX/AFfpf0sh8N3Z6dC3WovVMPbsY
Pj2AkNqC7xPAsp8oVBD+bo3Z1uM+ke0oxoismI7GYWUkDrcCAwEAAaOCA4cwggOD
MB8GA1UdIwQYMBaAFLdrouqoqoSMeeq02g+YssWVdrn0MB0GA1UdDgQWBBRBxW51
1srSTFk/Rpq/P5TBmgX9PTAvBgNVHREEKDAmghIqLnZlZXZhbmV0d29yay5jb22C
EHZlZXZhbmV0d29yay5jb20wDgYDVR0PAQH/BAQDAgWgMB0GA1UdJQQWMBQGCCsG
AQUFBwMBBggrBgEFBQcDAjCBjwYDVR0fBIGHMIGEMECgPqA8hjpodHRwOi8vY3Js
My5kaWdpY2VydC5jb20vRGlnaUNlcnRUTFNSU0FTSEEyNTYyMDIwQ0ExLTQuY3Js
MECgPqA8hjpodHRwOi8vY3JsNC5kaWdpY2VydC5jb20vRGlnaUNlcnRUTFNSU0FT
SEEyNTYyMDIwQ0ExLTQuY3JsMD4GA1UdIAQ3MDUwMwYGZ4EMAQICMCkwJwYIKwYB
```

```
BQUHAgEWG2h0dHA6Ly93d3cuZGlnaWNlcnQuY29tL0NQUzB/BggrBgEFBQcBAQRz
MHEwJAYIKwYBBQUHMAGGGGh0dHA6Ly9vY3NwLmRpZ2ljZXJ0LmNvbTBJBggrBgEF
BQcwAoY9aHR0cDovL2NhY2VydHMuZGlnaWNlcnQuY29tL0RpZ2lDZXJ0VExTUlNB
U0hBMjU2MjAyMENBMS0xLmNydDAMBgNVHRMBAf8EAjAAMIIBfgYKKwYBBAHWeQIE
AgSCAW4EggFqAWgAdwDoPtDaPvUGNTLnVyi8iWvJA9PL0RFr7Otp4Xd9bQa9bgAA
AX17v/IGAAAEAwBIMEYCIQDMIKUjmu73m+cLYjCkAcrpu++0OYGBPg4Cm9TY4Qdy
WgIhAIQzvphzVYu3mIN93YYIXo1NsCiofHQVwxRsseSfgzzMAHUANc8ZG7+xbFe/
D61MbULLu7YnICZR6j/hKu+oA8M71kwAAAF9e7/xogAABAMARjBEAiA3irA4BXTt
DoUmyxxZbKFeuX8YHNrIzDVwLIybsomHRAIgSbBKFIGRnXRSmNCOfKRE5Yy3WWp/
keDpIOLU9fuWy9QAdgCzc3cH4YRQ+GOG1gWp3BEJSnktsWcMC4fc8AMOeTalmgAA
AX17v/HnAAAEAwBHMEUCIEApRCl/xaTQul2J64/YNTDSBZEm8mnfYF3dc4Xl4bSK
AiEAyiZFnMjoHnHUhVGQgdY89Azo5ryNeVgF8saP18FOJRAwDQYJKoZIhvcNAQEL
BQADggEBAJ6H6qjilmuxctXlazdH9p0MxPYD1orBOFGtEegBk4kZS0nXZjyF/B8e
ZvC9v7XuBOCAAZWxjHNMIp5A+zyF9b3QSIewDMN7JYYIJsLTPrBRaa6Y6FPhUdUZ
W5U4u6mD7h2Q9dZueXkByQiJfy8/WtWyAa6DSwzBMGzJzLrCMBY2krP6RdiEp6P2
tJemwoTAnq6kKiScAMNtxzA02o05Y2B7S3n5e09oE09qnOOobMSohEN4bdIyNBEw
HKOy+dctTmniarm2i98+FIBc2zQLaygWjKqt5ZVzdsuJjEeajFx9+Kkt/dCq4rX5
4tAjNJPem5hlR7KYoB5EVop11r7nNQ4=
-----END CERTIFICATE-----
```

Intermediate CA certificate

Install this (DigiCertCA) CA certificate to ensure that the SSL certificate is fully trusted by the supported browsers and client computers.

```
-----BEGIN CERTIFICATE-----
MIIEvjCCA6agAwIBAgIQBtjZBNVYQ0b2ii+nVCJ+xDANBgkqhkiG9w0BAQsFADBh
MQswCQYDVQQGEwJVUzEVMBMGA1UEChMMRGlnaUNlcnQgSW5jMRkwFwYDVQQLExB3
d3cuZGlnaWNlcnQuY29tMSAwHgYDVQQDExdEaWdpQ2VydCBHbG9iYWwgUm9vdCBD
QTAeFw0yMTA0MTQwMDAwMDBaFw0zMTA0MTMyMzU5NTlaME8xCzAJBgNVBAYTAlVT
MRUwEwYDVQQKEwxEaWdpQ2VydCBJbmMxKTAnBgNVBAMTIERpZ2lDZXJ0IFRMUyBS
U0EgU0hBMjU2IDIwMjAgQ0ExMIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKC
AQEAwUuzZUdwvN1PWNvsnO3DZuUfMRNUrUpmRh8sCuxkB+Uu3Ny5CiDt3+PE0J6a
qXodgojlEVbbHp9YwlHnLDQNLtKS4VbL8Xlfs7uHyiUDe5pSQWYQYE9XE0nw6Ddn
g9/n00tnTCJRpt8OmRDtV1F0JuJ9x8piLhMbfyOIJVNvwTRYAIuE//i+p1hJInuW
raKImxW8oHzf6VGo1bDtN+I2tIJLYrVJmuzHZ9bjPvXj1hJeRPG/cUJ9WIQDgLGB
Afr5yjK7tI4nhyfFK3TUqNaX3sNk+crOU6JWvHgXjkkDKa77SU+kFbnO8lwZV21r
eacroicgE7XQPUDTITAHk+qZ9QIDAQABo4IBgjCCAX4wEgYDVR0TAQH/BAgwBgEB
/wIBADAdBgNVHQ4EFgQUt2ui6qiqhIx56rTaD5iyxZV2ufQwHwYDVR0jBBgwFoAU
A95QNVbRTLtm8KPiGxvDl7I90VUwDgYDVR0PAQH/BAQDAgGGMB0GA1UdJQQWMBQG
CCsGAQUFBwMBBggrBgEFBQcDAjB2BggrBgEFBQcBAQRqMGgwJAYIKwYBBQUHMAGG
GGh0dHA6Ly9vY3NwLmRpZ2ljZXJ0LmNvbTBABggrBgEFBQcwAoY0aHR0cDovL2Nh
Y2VydHMuZGlnaWNlcnQuY29tL0RpZ2lDZXJ0R2xvYmFsUm9vdENBLmNydDBCBgNV
HR8EOzA5MDegNaAzhjFodHRwOi8vY3JsMy5kaWdpY2VydC5jb20vRGlnaUNlcnRH
bG9iYWxSb290Q0EuY3JsMD0GA1UdIAQ2MDQwCwYJYIZIAYb9bAIBMAcGBWeBDAEB
MAgGBmeBDAECATAIBgZngQwBAgIwCAYGZ4EMAQIDMA0GCSqGSIb3DQEBCwUAA4IB
AQCAMs5eC91uWg0Kr+HWhMvAjvqFcO3aXbMM9yt1QP6FCvrzMXi3cEsaiVi6gL3z
ax3pfs8LulicWdSQ0/1s/dCYbbdxglvPbQtaCdB73sRD2Cqk3p5BJl+7j5nL3a7h
qG+fh/50tx8bIKuxT8b1Z11dmzzp/2n3YWzW2fP9NsarA4h20ksudYbj/NhVfSbC
EXffPgK2fPOre3qGNm+499iTcc+G33Mw+nur7SpZyEKEOxEXGlLzyQ4UfaJbcme6
ce1XR2bFuAJKZTRei9AqPCCcUZlM51Ke92sRKw2Sfh3oius2FkOH6ipjv3U/697E
A7sKPPcw7+uvTPyLNhBzPvOk
-----END CERTIFICATE-----
```

View updated certificates

After the certificates are updated, they can be viewed or downloaded by running:

```
openssl s_client -connect login.veevanetwork.com:443 -showcerts
```

The new certificates expire on January 1, 2023.

TRANSPORT LAYER SECURITY (TLS)

21R2.1

Veeva Network is deprecating the use of TLS 1.1. Network currently supports TLS 1.1 and TLS 1.2. security protocols for encrypted internet communications. After version 21R2.1 is released, only TLS 1.2 will be supported.

Support will be removed for the following TLS cyphers:

- DHE-RSA-AES256-GCM-SHA384
- DHE-DSS-AES256-GCM-SHA384
- DHE-DSS-AES128-GCM-SHA256

API

VERSION UPDATE

21R3

The Network API is updated to v25.0.

As with all version updates, Integration Users should continue to use v24.0 until there is a change for v25.0 that they want to apply.

For more information about the Network API, see the *Veeva Network API Reference* at http://developer.veevanetwork.com.

MATCH API

21R3

Use the new Match API to match data immediately for a single record. This is helpful when you need to verify data in real-time, for example, when you are registering HCPs in a portal. You can match the data using an API call instead of trying to verify the data using Network Search which requires multiple searches, filtering, and field queries.

The API uses the default match rules for your Network instance.

Submit match request

Use this API call to request a match to an entity.

Syntax

```
POST {{URL}}/api/{{version}}/match/
```

where:

- `URL` is the URL of your API service
- `version` is the API version

Required parameters

- **entity_type** - The entity type of the match request
- **entity** - The entity data.
  The structure and fields should be the same as the Network data model. The `primary_country__v` field and value (for example, `US`) is required.

Example

```
{
     "entity_type": "HCP",
     "entity": {
         "first_name__v" : "Clinton",
         "last_name__v" : "Ackerman",
         "addresses__v": [
             {
                 "address_line_1__v" : "1240 India Street",
                 "locality__v": "San Diego",
                 "administrative_area__v": "US-CA",
                 "country__v": "US"
             }
         ],
         "primary_country__v": "US"
     }
 }
```

Optional parameters

- addressCleansing - Cleanse input address before matching.
- includeMasterResults - Include results from Veeva OpenData with results of the customer data.
- limit - the number to limit the results returned (integer). If used, the default value is `10`. The maximum is `50`.

Response

The response includes the following:

- **responseStatus** - The status of the response in Network.
- **matchSetup** - Details about the match configuration that was used.
- **sourceEntity** - The data used in the match request.
- **matchEntities** - An array of attribute information for the objects. For example, the Network entity ID, ASK or ACT match, feature set, and so on
- **totalCount** - The number of matched entities
- **limit** - The number to limit the results returned.

Example response


```
{
      "status": "SUCCESS",
      "message": null,
      "requestTS": 1629735205762,
      "payload": {
          "matchSetup": {
              "country": "US",
              "entityType": "HCP",
              "includeMasterResults": true,
              "addressCleansing": true
          },
          "sourceEntity": {
              "first_name__v": "Amanda",
              "last_name__v": "Jackson",
              "npi_num__v": "1669926804",
              "primary_country__v": "US",
              "sha_id__v": "722739",
              "vid__v": "6656453490",
              "me_id__v": "0350313065",
              "addresses__v": [
                  {
                      "address_line_1__v": "8333 Goodwood Blvd",
                      "locality__v": "Milwaukee",
                      "postal_code__v": "53226",
                      "country__v": "US",
                      "phone_1__v": "8474281179",
                      "administrative_area__v": "US-WI"
                  }
              ],
              "licenses__v": [
                  {
                      "type_value__v": "IL",
```

```
                        "license_number__v": "67198",
                        "vid__v": "66564534634"
                    },
                    {
                        "type_value__v": "DEA",
                        "license_number__v": "BM2637126",
                        "vid__v": "66564534"
                    }
                ],
                "parent_hcos__v": [
                    {
                        "parent_hco_corp_name__m": "Thida Maw MD Pediatrics"
                    },
                    {
                        "parent_hco_vid__v": "9321790801817127 99"
                    }
                ]
            },
            "matchedEntities": [
                {
                    "metaData": {
                        "vid__v": "938361996114591775",
                        "resultFromMaster": false,
                        "fromMasterInstance": -1,
                        "dataGroups": {
                            "addresses__v.locality__v=milwaukee &
is_externally_mastered__v!=true & primary_country__v=us": 1,
                            "is_externally_mastered__v!=true &
primary_country__v=us & sha_id__v=722739": 1,
                            "first_name__v=amanda &
is_externally_mastered__v!=true & last_name__v=jackson &
primary_country__v=us": 1,
                            "is_externally_mastered__v!=true &
npi_num__v=1669926804 & primary_country__v=us": 1,
                            "addresses__v.locality__v=milwaukee &
first_name__v=amanda & is_externally_mastered__v!=true &
primary_country__v=us": 1,
                            "addresses__v.locality__v=milwaukee &
is_externally_mastered__v!=true & last_name__v=jackson &
primary_country__v=us": 1
                        },
                        "downloadFromMaster": false
                    },
                    "matchResult": {
                        "advice": "ACT",
                        "confidence": 0.985,
                        "featureInfoList": [
                            {
                                "name": "NPI is not different",
                                "fields": [
                                    "npi_num__v"
                                ]
                            },
                            {
                                "name": "SHA ID is identical",
                                "fields": [
                                    "sha_id__v"
```

```
                            ]
                        }
                    ]
                },
                "entityType": "HCP",
                "entityId": "938361996114591775",
                "entity": {
                    "npi_num__v": "1669926804",
                    "sha_id__v": "722739"
                }
            },
            {
                "metaData": {
                    "vid__v": "938361996114591775",
                    "resultFromMaster": true,
                    "fromMasterInstance": 2,
                    "dataGroups": {
                        "addresses__v.locality__v=milwaukee &
is_externally_mastered__v!=true & primary_country__v=us": 0,
                        "is_externally_mastered__v!=true &
primary_country__v=us & sha_id__v=722739": 1,
                        "first_name__v=amanda &
is_externally_mastered__v!=true & last_name__v=jackson &
primary_country__v=us": 1,
                        "is_externally_mastered__v!=true &
npi_num__v=1669926804 & primary_country__v=us": 1,
                        "addresses__v.locality__v=milwaukee &
first_name__v=amanda & is_externally_mastered__v!=true &
primary_country__v=us": 0,
                        "addresses__v.locality__v=milwaukee &
is_externally_mastered__v!=true & last_name__v=jackson &
primary_country__v=us": 0
                    },
                    "downloadFromMaster": true
                },
                "matchResult": {
                    "advice": "ACT",
                    "confidence": 0.985,
                    "featureInfoList": [
                        {
                            "name": "NPI is not different",
                            "fields": [
                                "npi_num__v"
                            ]
                        },
                        {
                            "name": "SHA ID is identical",
                            "fields": [
                                "sha_id__v"
                            ]
                        }
                    ]
                },
                "entityType": "HCP",
                "entityId": "938361996114591775",
                "entity": {
                    "npi_num__v": "1669926804",
```

```
                    "sha_id__v": "722739"
                }
            }
        ],
        "totalCount": 2,
        "limit": 10
    },
    "sr": "SR"
}
```


Errors

The responseStatus returns a FAILURE message for the following errors:

- The request was submitted without an `entity_type`.
- The provided `entity_type` is invalid.
- The request was submitted without a `primary_country`.
- The provided `primary_country` code is invalid.

The responseStatus returns an INSUFFICIENT_ACCESS message for the following error:

- A Data Steward, Portal User, or Standard User submits a request.

  The following Network user types can submit a Match API request if they have API access enabled:

  - System and Data Admin
  - System Administrator
  - Data Manager
  - Integration User

HASHTAGS IN THE NETWORK API

21R3

Hashtags help to summarize important details about records. Integration Users can now include hashtags in the Search, Retrieve, and Retrieve Change Request API calls.

This enhancement is supported for Network API version 25.0 and later.

Search API

Integration users can use a new parameter to see hashtags in search results for the requested type.

Parameter

Use the following parameter to add hashtags to your search results.

Name	Description	Required?	Values
returnHashtagsForType	Return hashtags for the requested type.	False	NETWORK - Display predefined Network hashtags. ALL - Display Network defined and custom hashtags. NONE- Display no hashtags.

Sample request

```
GET
https://my.veevanetwork.com/api/v25.0/search?q=Michael&types=HCP&returnHash
tagsForType=ALL&&filters=primary_country__v:US
```

Example response

```
{
     "responseStatus": "SUCCESS",
     "entities": [{
                 "entityId": "243215269164483592",
                 "entityType": "HCP",
                 "metaData": {
                       "vid__v": "243215269164483592",
                       "relevance": 164.14282
                 },
                 "entity": {
                       "first_name__v": "Michael",
                       "years_in_progress__v": 0,
                       "birth_year__v": 1949,
                       ...
                       "parent_hcos__v": [{
                                   "parent_hco_vid__v":
"670748077530911744",
                                   ...
                             }
                       ]
                 },
                 "hashtags": [{
                       "name": "#npi",
                       "color": "gray",
                       "tooltip": "HCP or HCO has an NPI number",
                       "tooltipLabel": "NPI: ",
                       "tooltipValue": "1487655437",
                       "tooltipHasOtherValue": false
                 }]
           },
           ....
```

Retrieve API

Integration users can use a new parameter to see hashtags in the Retrieve and Batch Retrieve API calls.

Sample request

```
https://my.veevanetwork.com/api/v25.0/hcps/Network:Entity:243223879743439872?returnHashtagsForType=ALL
```

Parameter

Use the following parameter to add the list of hashtags for the returned entity.

Name	Description	Required?	Values
`returnHashtagsForType`	Return hashtags for the requested type.	False	NETWORK - Display predefined Network hashtags. ALL - Display Network defined and custom hashtags. NONE- Display no hashtags.

Response

Name	Description
`entities`	Field info for objects • **entityId** - Network ID of the entity • **entityType** - entity type • **entity** - entity containing the attributes (fields)
`responseStatus`	The status of the response from Network.
`hashtags`	The list of hashtags for the entity. • **name** - hashtag name • **color** - hashtag color • **tooltip** - tooltip of the hashtag • **tooltipLabel** - field value label of the tooltip • **tooltipValue** - field value of the hashtag • **tooltipHasOtherValue** - True if the tooltip has more than three field values.

Example response

```
{
   "responseStatus": "SUCCESS",
   "entities": [
     {
       "entityId": "243223879743439872",
       "entityType": "HCP",
       "metaData": {},
       "entity": {
         "first_name__v": "April",
         ...
```

```
          "parent_hcos__v": [
            {
              "parent_hco_vid__v": "933083005204499295",
              ...

              ]
            }
          ]
        },
        "hashtags": [
          {
            "name": "#npi",
            "color": "gray",
            "tooltip": "HCP or HCO has an NPI number",
            "tooltipLabel": "NPI: ",
            "tooltipValue": "1316006166",
            "tooltipHasOtherValue": false
          },
          {
            "name": "#md",
            "color": "gray",
            "tooltip": "HCP has a Doctor of Medicine",
            "tooltipLabel": null,
            "tooltipValue": null,
            "tooltipHasOtherValue": false
          },
          {
            "name": "#physician",
            "color": "gray",
            "tooltip": "HCP is a physician",
            "tooltipLabel": "Degrees: ",
            "tooltipValue": "Doctor of Medicine",
            "tooltipHasOtherValue": false
          },
          {
            "name": "#ServiceCloud",
            "color": "gray",
            "tooltip": "Account was added to Service Cloud",
            "tooltipLabel": "Service Cloud Account ID:",
            "tooltipValue": "21921521512",
            "tooltipHasOtherValue": false
          }
        ]
      }
    ]
  }
```

Metadata API

Integration users can use a new parameter to see the list of hashtags available in the Metadata API calls.

Parameter

Use the following parameter to display the list of hashtags available to the authenticated API user for the specified type.

Name	Description	Required?	Values
`returnHashtagsForType`	Filter hashtags for the requested type.	False	NETWORK - Display predefined Network hashtags. ALL - Display Network defined and custom hashtags. NONE- Display no hashtags.

Example request

```
GET https://my.veevanetwork.com/api/v25.0/metadata/hashtags
```

Response

Name	Description
`responseStatus`	The status of the response from Network.
`hashtags`	The list of hashtags available to the authenticated API user. • **name** - hashtag name • **color** - hashtag color • **tooltipShowFieldValue** - show the hashtag field value • **tooltipField** - tooltip field • **countries** - list of countries • **entityTypes** - list of entity types • **hashtagRules** - list of rules used to determine the hashtag. Includes fieldName, fieldType, ruleCondition, value1, value2.
`hashtagTooltipLocalizations`	The list of tooltip localized values. Includes languageCode, description, and fieldValue.
`hashtagVisibilities`	The list of hashtag visibility rules. Includes **type** (ALL, NONE, NETWORK, WIDGET), **subtype** (SEARCH_AND_DOWNLOAD, PROFILE, MY_REQUESTS), and **value** (ALL when the type is WIDGET).

Example response


```
{
   "responseStatus": "SUCCESS",
   "hashtags": [
     {
       "name": "#npi",
       "color": "gray",
       "tooltipShowFieldValue": true,
       "tooltipField": "npi_num__v",
       "countries": [
         "US"
       ],
       "entityTypes": [
         "HCP",
         "HCO"
       ],
       "hashtagRules": [
         {
           "fieldName": "hcp.npi_num__v",
           "fieldType": "STRING",
           "ruleCondition": "is_not_null",
           "value1": null,
           "value2": null
         },
         {
           "fieldName": "hco.npi_num__v",
           "fieldType": "STRING",
           "ruleCondition": "is_not_null",
           "value1": null,
           "value2": null
         }
       ],
       "hashtagTooltipLocalizations": [
         {
           "languageCode": "EN",
           "description": "HCP or HCO has an NPI number",
           "fieldValue": "NPI: "
         }
       ],
       "hashtagVisibilities": [
         {
           "type": "NETWORK",
           "subtype": null,
           "value": "ALL"
         },
         {
           "type": "WIDGET",
           "subtype": "SEARCH_AND_DOWNLOAD",
           "value": "ALL"
         },
         {
           "type": "WIDGET",
           "subtype": "PROFILE",
```

```
            "value": "ALL"
          },
          {
            "type": "WIDGET",
            "subtype": "MY_REQUESTS",
            "value": "ALL"
          }
        ]
      }
    ]
  }
```