Managing data caches and queries (Data Virtualization)

Data Virtualization Admins can cache a query to save its data results and optimize query performance.

About this task

In Data Virtualization, you can virtualize remote data sources so that data can remain remote while it is accessed through a single framework. For example, you can virtualize tables across different remote databases, and you can run queries that can join these tables. To avoid query executions that are time-consuming, Data Virtualization administrators can create a cache to improve the performance by caching the result set of your queries. 11.11.5

In the **Cache management** page, you, as Data Virtualization administrator, can monitor storage and responsiveness of your data caches:

- In the **Cache storage** chart bar, you can view the total amount of cache storage that you allocated during provisioning. For more information, see Provisioning Data Virtualization. Moreover, you can monitor the amount of storage currently used by both active and inactive data caches. Active data caches are used in query optimization.
- In the **Responsiveness** bar chart, you can monitor how long your queries run in a specific period of time. Additionally, you can:
  - Compare the responsiveness of queries that use data caches and queries that do not use data caches.
  - View queries that are using a specific cache.

In the **Active data caches** tab of the **Cache management** page, you can get a list of active data caches that you can manage. Additionally, you can see the number of total hits of a cache. The **Responsiveness** bar chart provides usage information in a specific period of time, while the **Total hits** column in **Active data caches** shows you the overall number of hits an active cache received.

Procedure

To manage data caches, follow these steps:

- To add a data cache entry, see Adding caches entries.
- To view details of a cache:
    1. Go to **Collect > Data Virtualization > Cache management**.
    2. Go to the action menu of the cache and click **View details**.
- To edit data caches:
    1. Go to the action menu of the cache and click **Edit name**.
    2. Enter a new name for your cache and click **Apply**.
- To edit the cache refresh schedule:
    1. Go to the action menu of the cache and click **Edit refresh**.
    2. Set a refresh rate for the cache.
       A frequent refresh prevents the cache from becoming stale in time. You can set a refresh to run:
        - **Weekly**: Select day of the week and time of the day to refresh your cache.
        - **Hourly**: Select time of the hour to refresh your cache.
        - **Daily**: Select time of the day to refresh your cache.
        - **Monthly**: Select weeks of the month, days of the week, and time of the day to refresh your cache.
        - **None**: If you select this option, you can refresh the cache manually by using the action menu.
    3. Click **Apply**.
- To refresh a cache manually, go to the action menu of the cache and click **Refresh now**.
- To deactivate an active cache, go to the action menu of the cache and click **Deactivate**.
- To delete a data cache, click **Delete** the action menu of the cache.
- To re-create a deleted data cache, click **Inactive data caches > Deleted caches**. In the action menu of the cache you want to re-create, click **Recreate cache**.

- **Adding data caches (Data Virtualization)**
  Data Virtualization Admins can create a cache entry to save query data and results and optimize query performance.
- **Managing data queries (Data Virtualization)**
  Data Virtualization Admins can view, search, and filter queries that were run in the service.
- **Restrictions for cache entries (Data Virtualization)**
  When you create cache entries in Data Virtualization, you must consider certain restrictions.

Parent topic:

→ Virtualizing data (Data Virtualization)

Related information

→ Troubleshooting data caches and queries