Rubrik API Code Capture Chrome Extension

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ABSTRACT

At the heart of the Rubrik API-first architecture is the fact that every action in the Rubrik UI has a corresponding API that is documented and available for use. In other words, if you can do it through the Rubrik UI, you can programmatically do the same through an API. While each of those APIs are fully documented, it can still be cumbersome to search through the API documentation to find the APIs you need and then determine the information you need to send with those API calls. This is where the API Code Capture extension comes into play.
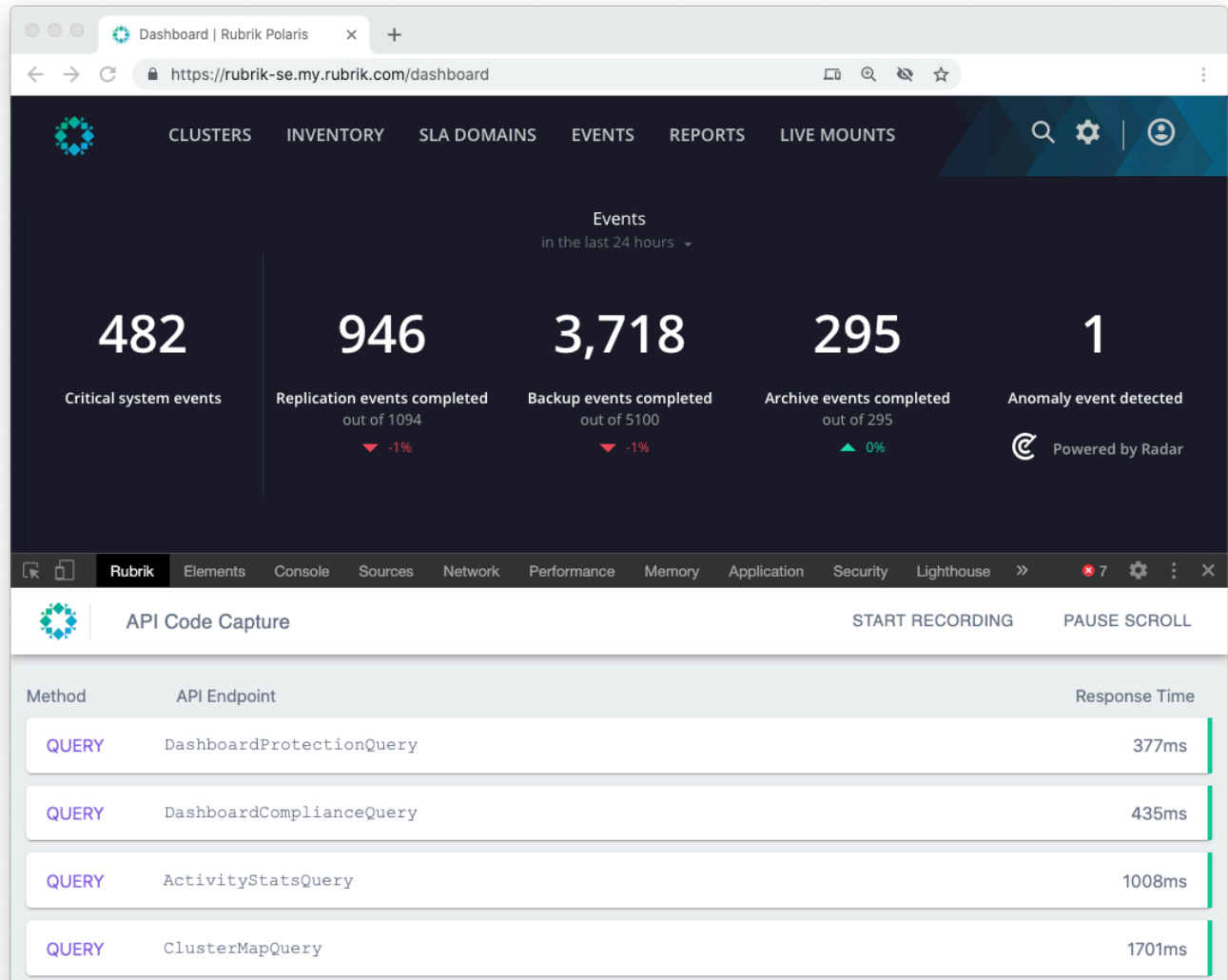
The extension captures the API calls that both Rubrik CDM and Polaris UIs issue to their underlying platforms. By opening the extension and monitoring which API calls are used when you manually complete that task in the UI, you can easily answer the question "how do I automate X task?".

INSTALLATION

The extension can be installed through the Chrome Web Store **Add to Chrome** button.

You will then be provided a list of the permission required by the extension and prompted to select **Add extension**. While we do not request any specific permissions, we still need the standard permission of "Read and change all your data on the website you visit". The extension is only active when the DevTools are loaded, and we will never change any data on the websites you visit. For verification, the full source code for the extension is also available at https://github.com/rubrikinc/api-capture-chrome-extension

OPENING THE EXTENSION

To view the extension you will need to open the Chrome DevTools. There are several ways of opening the DevTools — the simplest of which is to right-click anywhere on the screen and then select `Inspect`.

Once in the DevTools, you will then need to select the Rubrik tab.

API ENTRY

Each API call captured by the extension includes (from left to right):

- HTTP Method used (ex. GET) or GraphQL call query type (QUERY or MUTATION)
- REST API endpoint or GraphQL Operation Name
- Response Time for the API call
- Success indicator. If successful, the right border will be green. If there was an error with the API call, the right border will be red.
- When hovering over the entry, a copy button will appear on the left side that will copy the HTTP Method and Endpoint to your clipboard. In the below example, "`GET /internal/cluster/me/node`" will be copied.
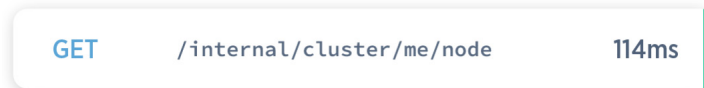
You can also view the Request or Response Body or the API call by clicking on the entry. GraphQL calls will also include a Request Variables option.
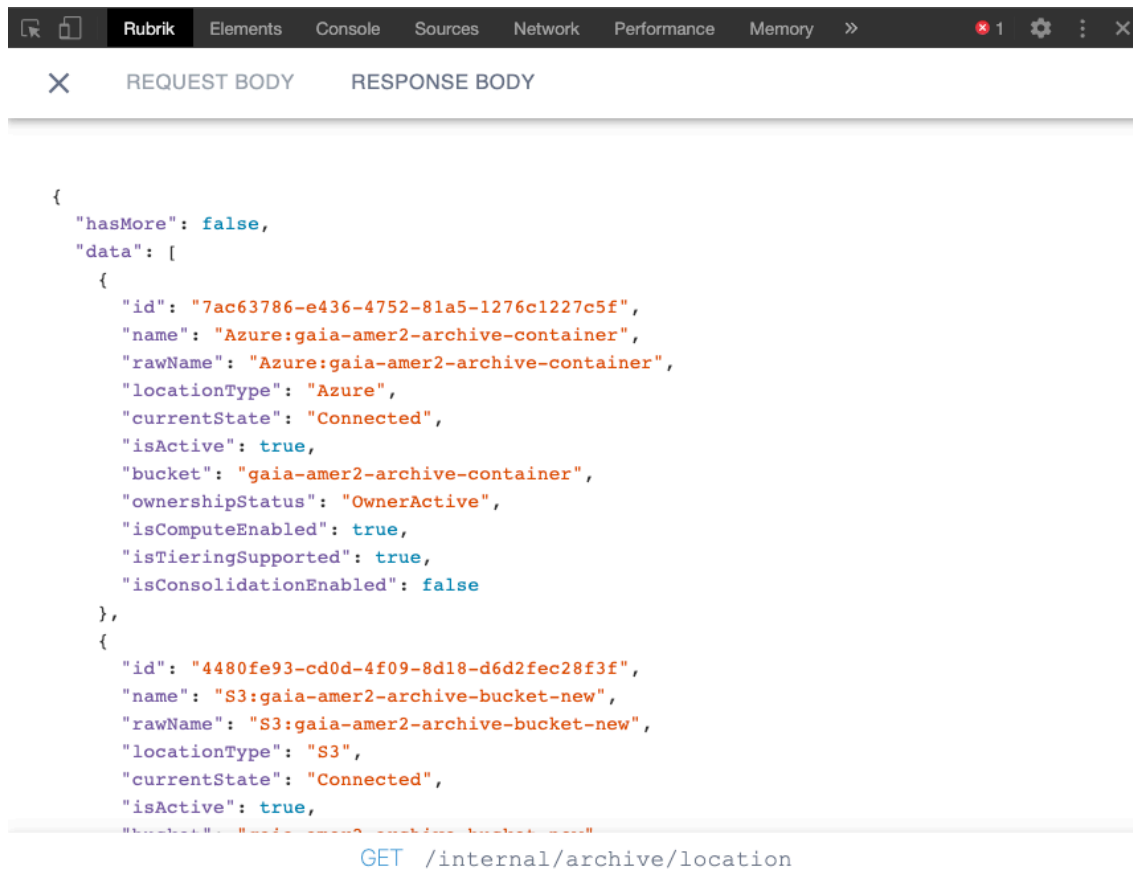
To help prevent unnecessary noise, the extension will filter out any "background" API call that the Rubrik UI uses for internal functionality and that are not relevant to larger workflow centric tasks.

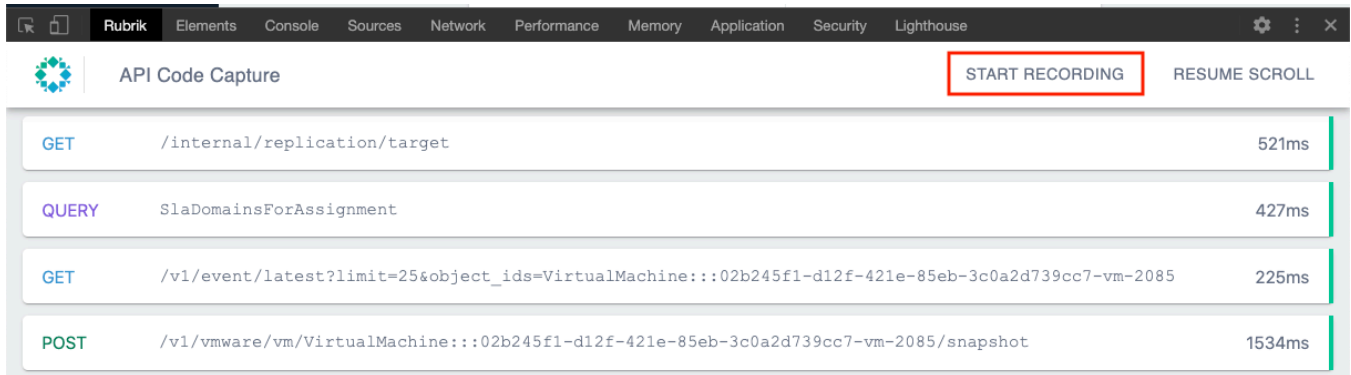The following CDM REST APIs are categorized as a background API:

- `/internal/cluster/me/is_registered`
- `/internal/cluster/me/is_azure_cloud_only`
- `/internal/cluster/me/is_registered`
- `/internal/cluster/me/is_encrypted`
- `/internal/cluster/me/platforminfo`
- `/internal/cluster/me/ui_preference`
- `/internal/cluster/me/ntp_server`
- `/internal/cluster/me/name`
- `/internal/cluster/me/ipmi`
- `/internal/cluster/log`
- `/internal/node_management/is_bootstrapped`
- `/internal/log`
- `/internal/cluster/me/security_classification`
- `/internal/config/crystal`
- `/internal/authorization/effective/for_resource`
- `/internal/event?limit=15`
- `/internal/user/me/organization`
- `/internal/authorization/effective/for_resources`
- `/v1/cluster/me`
- `/v1/cluster/me/version`
- `/v1/blackout_window`
- `/v1/event/latest?limit=15`
- `/internal/authorization/effective/roles?principal`
- `/v1/saml/sso_status`
- `/internal/user/{userID}`
- `/internal/authorization/effective/roles?principal={userID}&resource_types=Global`
- `/internal/organization/{orgID}`

The extension will also filter out these GraphQL queries which are categorized by their Operation Name:

- `FeatureFlagQuery`
- `CurrentUserRolesQuery`
- `CurrentUserPermissionsQuery`
- `UserInfoQuery`

RECORDING FEATURE

The default functionality of the extension is to create a new entry for every API call. When trying to discover the APIs for a specific workflow, this functionality may result in unnecessary API entries (i.e not relevant to the workflow) being shown. To solve this problem, you can use the `START RECORDING` button to create entries only for the specific workflow you need.

The workflow for the recording functionality is:

1. Select `START RECORDING`

    a. The extension will clear all API entries and the `START RECORDING` button will change to `STOP RECORDING`

2. Complete the workflow in the UI

3. Select `STOP RECORDING`

    a. The extension will stop monitoring for new API calls

4. Select `RESET RECORDING`

    a. The extension will revert to its default functionality and record all API entries

PAUSE SCROLL

When a new API entry is shown, the extension will automatically scroll the list of API entries so the latest API call is always visible on the bottom of the page. In some situations, this may make it difficult to view previous added API entries. In those cases you can use the `PAUSE SCROLL` button to pause the automatic scroll functionality.

VERSION HISTORY

Version	Date	Summary of Changes
1.0	June 2020	Initial Release

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