

# Query for records through the REST API

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The ExtraHop REST API enables you to query for records stored on a recordstore. By querying records with a REST API script, you can import records into a third party application, such as Microsoft Excel. Also, if your query matches more than the maximum number of records returned by the REST API, you can configure the script to recursively query for the remaining records. In this topic, we show methods for querying records through both the ExtraHop REST API Explorer and a Python script.

## Before you begin

- You must log in to the ExtraHop system with an account that has full write privileges to generate an API key.
- You must have a valid API key to make changes through the REST API and complete the procedures below. (See [Generate an API key](#).)
- Familiarize yourself with the [ExtraHop REST API Guide](#) to learn how to navigate the ExtraHop REST API Explorer.

## Query records through the REST API Explorer

**!** Important: The REST API Explorer is not available on Reveal(x) 360.


1. In a browser, navigate to the REST API Explorer.  
The URL is the hostname or IP address of your ExtraHop system, followed by `/api/v1/explore/`. For example, if your hostname is `seattle-eda`, the URL is `https://seattle-eda/api/v1/explore/`.
2. Click **Enter API Key** and then paste or type your API key into the **API Key** field.
3. Click **Authorize** and then click **Close**.
4. Click **Record Log** and then click **POST /records/search**.
5. Click **Try it out**.  
The JSON schema is automatically added to the body parameter text box.
6. In the body text box, specify fields for your record query.  
For example, the following fields retrieve records from the last 30 minutes that include an IP address, domain name, or URI that has been identified as suspicious according to [threat intelligence](#):

```
{
  "from": "-30m",
  "filter": {
    "field": "ex.isSuspicious",
    "operator": "=",
    "operand": {
      "type": "boolean",
      "value": "true"
    }
  }
}
```

For a complete list of valid fields, see the Body Parameters section under **POST /records/search** in the REST API Explorer.



## Python script examples

The following Python scripts query for records that involve an IP address, domain name, or URI that has been identified as suspicious according to threat intelligence. The scripts then write specified record fields to a CSV file that can be viewed in a spreadsheet program.

 **Note:** For more information about threat intelligence with ExtraHop, see [Threat intelligence](#) and [Upload STIX files through the REST API](#).


### Retrieve and run the example Python script for an Explore appliance

The ExtraHop GitHub repository contains an example Python script that retrieves records from an Explore appliance.

-  **Important:** If the query matches more than the maximum number of records that can be retrieved at once, the script retrieves the remaining records by sending a cursor to the ExtraHop system with the POST /records/cursor operation. This operation is only valid with Explore appliances. If you have configured a third-party or cloud recordstore, see [Retrieve and run the example Python script for a third-party or cloud recordstore](#).
-  **Important:** The example python script authenticates to the ExtraHop system through an API key, which is not compatible with the Reveal(x) 360 REST API. To run this script with Reveal(x) 360, you must modify the script to authenticate with API tokens. See the [py\\_rx360\\_auth.py](#) script in the ExtraHop GitHub repository for an example of how to authenticate with API tokens.

1. Go to the [ExtraHop code-examples GitHub repository](#) and download the `query_records_explore/query_records_explore.py` file to your local machine.
2. In a text editor, open the `query_records_explore.py` file and replace the following configuration variables with information from your environment:
  - **HOST:** The IP address or hostname of the ExtraHop system. Note that this hostname is not the hostname of the connected Explore appliance that the records are stored on.
  - **APIKEY:** The API key.
  - **FILENAME:** The file that output is written to.
  - **TIME\_LIMIT:** If the record query matches more than 100 records, the amount of time after the initial query that the remaining records can be retrieved from the system.
  - **QUERY:** The record query parameters.
  - **COLUMNS:** The record fields that are written to the CSV output file.
3. Run the following command:


```
python3 query_records_explore.py
```


 **Note:** If the script returns an error message that the SSL certificate verification failed, make sure that [a trusted certificate has been added to your ExtraHop system](#). Alternatively, you can add the `verify=False` option to bypass certificate verification. However, this method is not secure and not recommended. The following code sends an HTTP GET request without certificate verification:

```
requests.get(url, headers=headers, verify=False)
```

### Retrieve and run the example Python script for a third-party or cloud recordstore


The ExtraHop GitHub repository contains an example Python script that retrieves records from third-party and cloud recordstores.

 **Important:** The example python script authenticates to the ExtraHop system through an API key, which is not compatible with the Reveal(x) 360 REST API. To run this script with Reveal(x) 360, you must modify the script to authenticate with API tokens. See the [py\\_rx360\\_auth.py](#) script in the ExtraHop GitHub repository for an example of how to authenticate with API tokens.

 **Note:** If the query matches more than the maximum number of records that can be retrieved at once, the script retrieves the remaining records by sending additional requests with the `offset` parameter. The offset parameter skips a specified number of records in a query.

1. Go to the [ExtraHop code-examples GitHub repository](#) and download the `query_records_third_party/query_records_third_party.py` file to your local machine.
2. In a text editor, open the `query_records_third_party.py` file and replace the following configuration variables with information from your environment:
  - **HOST:** The IP address or hostname of the ExtraHop system.
  - **APIKEY:** The API key.
  - **FILENAME:** The file that output is written to.
  - **LIMIT:** The maximum number of records to retrieve at a time.
  - **QUERY:** The record query parameters.
  - **COLUMNS:** The record fields that are written to the CSV output file.
3. Run the following command:

```
python3 query_records_third_party.py
```

 **Note:** If the script returns an error message that the SSL certificate verification failed, make sure that [a trusted certificate has been added to your ExtraHop system](#). Alternatively, you can add the `verify=False` option to bypass certificate verification. However, this method is not secure and not recommended. The following code sends an HTTP GET request without certificate verification:

```
requests.get(url, headers=headers, verify=False)
```