Sample API Guide

This is a sample API guide that I had worked on. I have removed the product name or references to name of the tool at some places. The aim of this document is to showcase my skills regarding the API document process.

Client Reporting API

The Client Reporting API (application programming interface) is a tool that enables Reporting to manage client requests and changes effectively using the APIs. It provides a structured process for identifying and researching client requests, determining solutions, and managing change requests.

You can create and integrate with client Reporting API's to create and manage accounts, clients, users, data points, aggregate and client history. Once created you can use them in existing Reporting system or via the Client Reporting API.

Base URL

The base address of Client Reporting API is https://APIs-stg1.productname.com/client-Reporting.

Accessing Client Reporting API

You can access the client Reporting API from the Developer Portal. Refer to Accessing Developer Portal for details.

Authentication

To use the API, you must authenticate using the secret code generated in Configuring the APIs on the Developer Portal. Use the key to authenticate and execute the API requests.

Client Reporting API Calls

The Client Reporting API is a restful API with different endpoints such as clients, users, and history which return JSON metadata with details of the client and managing client requests and updates.

Client Reporting API Requests

Client data resources are accessed via standard HTTP requests in UTF-8 format to an API endpoint. The Web API uses the following HTTP verbs:

Method	Action
GET	Retrieves resources

PUT	Changes and/or replaces resources or collections
DELETE	Deletes resources
POST	Creates resources
PATCH	Updates resources

Client Reporting API Responses

Client Reporting API normally returns JSON in the response body. Refer to Response Status Codes for details on the responses received.

Key Terms in Client Reporting API

Following are some commonly used terms in client Reporting API:

- **Endpoints:** Endpoints in an API are specific URLs or paths that allow clients to access different functionalities or resources such as creating clients or updating accounts. They define the structure and parameters of request and response messages. Clients make HTTP requests to interact with the API through these endpoints, performing operations like retrieving or updating data.
- **Resources:** Resources refer to the specific entities or data objects that are accessible and interactable through the API. Resources can represent various types of data, such as users, accounts, history, or any other information managed by the API.
- **Authorize:** Refers to the process of granting permission or access to a user or application to perform specific actions or access certain resources within an API.
- **Client Reporting:** It involves the administration and control of clients, which are applications or users that interact with the API. Client Reporting typically includes tasks like authentication, authorization, and tracking client activity.
- **Parameters:** Parameters are values or variables that can be included in an API request to provide additional information or modify the behavior of the requested operation. They are used to customize and refine the API's functionality.
- **Execute:** To execute means to carry out a specific operation or action within the API. This could involve processing a request, performing a calculation, or manipulating data according to the defined functionality of the API.
- **Request Method:** Refers to the type of action or operation that the client wants to perform on a specific endpoint. Common request methods include GET (retrieve data), POST (submit data), PUT (update data), and DELETE (remove data).
- **Attributes:** Refers to the characteristics or properties associated with a specific object or resource within the API. They provide additional information about the object, such as its client type, date, location or name, and can be used to filter, sort, or retrieve specific data.

- **API Request:** API request refers to the action of making a request to a API in order to retrieve or manipulate data. It is a way for different software components or systems to communicate with each other.
- **API Response:** It is the data or information that is received from the API after making a request. It contains the requested data or the result of the requested operation.

API Endpoints for Client Reporting

Following are the API endpoints available for client Reporting:

API Endpoints	Description
`Client`	Use the client endpoints for creating, updating, retrieving, and deleting clients.
`Account`	Use this endpoint for creating and managing user accounts within an application or system.
`User`	Use this endpoint for managing user-related functionalities and data within an application or system.
`History`	Use this endpoint to view the activity performed on clients, accounts, and users over time. Use the history endpoints for fetching history.
`Aggregate`	Use this endpoint for managing aggregates in Reporting Analytics. It allows users to view and modify the simple accounts within an aggregate, add or remove simple accounts from an aggregate, and view the aggregates to which a simple account belongs.
`DataPoints`	The Data User endpoint is used for managing data user permissions in Reporting. It allows you to set up user access based on client-specified settings, ensure initial data accuracy on the Reporting Site.

API Response Codes

Response codes are standardized numeric or alphanumeric identifiers that are returned by an API during a request. It indicates if your request is successfully processed. In case of error these codes provide information about the nature of the response, allowing you to understand what went wrong and take appropriate actions. Following response codes are received when an API call is to the endpoints.

Status	Meaning	Description
`201`	Completed	The API request was successful the request is completed.
`207`	Multi-Status	The API request was partially successful.

400	Bad Request	The request from the client was not understood or was missing required parameters.
401	Unauthorized	The client doesn't have permission to access the requested resource.
403	Forbidden	The client's request is valid, but they don't have permission to access the requested resource.
422	Unprocessable Entity	The client has entered wrong values in the request.
404	Not Found	The requested resource could not be found on the server.
405	Method Not Allowed	The HTTP method used is not allowed for the requested resource.

Client Endpoints

The client endpoints are used to ensure consistent and efficient Reporting of clients across your application. Clients on the product name are either parent clients, or sub-clients of a parent client or both. Sub-clients can either be configured exactly like the parent client or configured with different settings.

Use this endpoint for creating, updating, retrieving, and deleting clients, ensuring that client Reporting is performed uniformly and correctly.

Note

Use the swagger ui and parameters description to understand the parameter changes required to perform an action.

Benefits of Client Endpoint

Following are some key benefits of using the client endpoints:

- By utilizing the client API, you can build scalable client Reporting systems. As your application grows and the number of clients increases, the API handles the underlying infrastructure and resources required to serve client-related requests, ensuring optimal performance and scalability.
- The client API allows you to enforce security measures for client Reporting. You can implement authentication and authorization mechanisms to ensure that only authorized users can perform actions on clients.
- If you need to integrate your client Reporting with other systems or services, the client API can facilitate seamless integration.
- The client API can be used to automate various client Reporting tasks. You can build workflows and scripts to perform actions on clients automatically, such as sending

notifications, updating client statuses, or triggering certain events based on specific client actions.

Client API Call Request URL

Use the following request url for using the client endpoint.

Request Method	
API Version	`V1`
Request URL	`https://APIs-stg1.Reportinganalytics.com/client-Reporting/v1/clients/`

Client Endpoints and Request Method

Use the following endpoints for creating, updating, and retrieving details of clients.

Endpoint	Action	Method
`v1/clients/` Create a client	Use this endpoint to create a new client	`POST`
`v1/clients/` Modify details of client	Use this endpoint to make any changes to the client details	`PATCH`
`v1/clients/{clientId}` Get client details	Use this endpoint to get information for a specific client. Enter the client id in the API request.	`GET`
`v1/clients/` Get clients details	Use this endpoint to get the information of all the clients. Max allowed size is 300.	`GET`
`v1/clients/hierarchy/{clientId}{` Get clients in hierarchy	Use this endpoint to organize and categorize clients based on their importance or level of engagement with a business or organization.	`GET`

API References

Refer to API Reference Links to navigate to the `swagger-ui` and test the APIs. You can also view the details of APIs request/response parameters and descriptions.

History

The history endpoint in the Client Reporting API is used to view trade history, including affirmed, archived, and rejected trades of all or single accounts, users or clients. It will get history for all accounts under an ultimate parent client. The endpoint retrieves both creation and update change history for the account, commonly known as Audit records.

> **Note**
>
> Use the swagger ui and parameters description to understand the parameter changes required to perform an action.

Benefits of History Endpoint

Following are some key benefits of using the client endpoints:

- You can view trade history.
- Retrieve information about affirmed, archived, and rejected trades.
- Obtain DTC status and state of each trade
- Search for specific trades
- Download trade history for a specific date range or individual trades by making request to the API with the appropriate parameters.

History API Call Request URL

Use the following request url for using the history endpoint.

Request Method	
API Version	V1
Request URL	`https://APIs-stg1.Reportinganalytics.com/client-Reporting/v1/history/`

History Endpoints and Request Method

Use the following endpoints for fetching history of all or single accounts, users or clients.

Endpoint	Action	Method
`v1/history/`	Use this endpoint to get the detailed history of all accounts, users, or clients under the parent client.	`GET`
`v1/history/{id}`	Use this endpoint to get the detailed history of a single accounts, users, or client. Enter the client id to fetch the details.	`GET`

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