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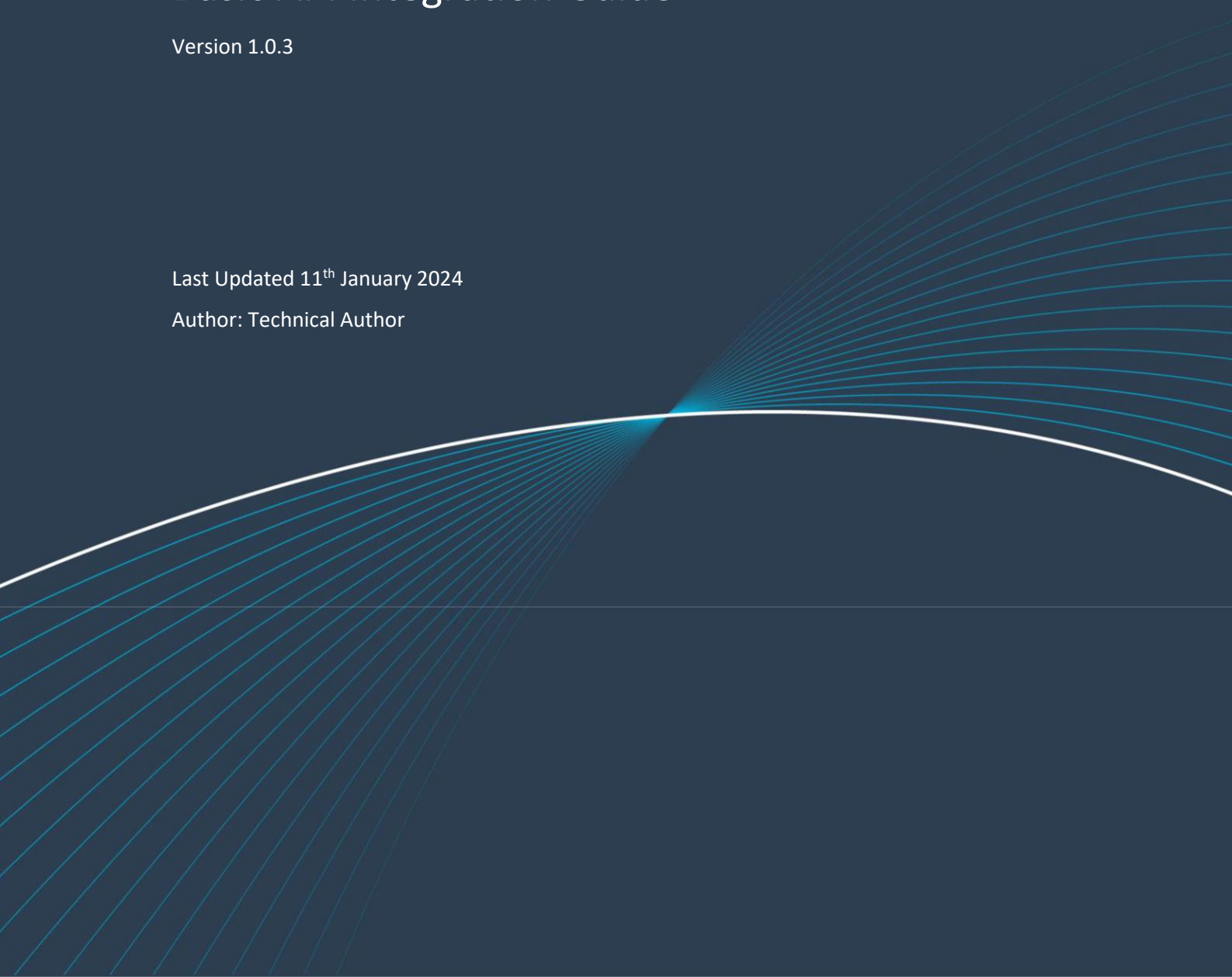
Global Monitoring
Basic API Integration Guide

Version 1.0.3

Last Updated 11th January 2024

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Contents

Introduction

This comprehensive guide is designed to facilitate the seamless integration of Global Monitoring into your projects, enabling you to harness its powerful capabilities effectively. Before delving into more complex monitoring features, we will walk you through the essential steps to ensure a successful setup.

In this guide, you will find a structured approach to integrating Global Monitoring, covering the following key aspects:
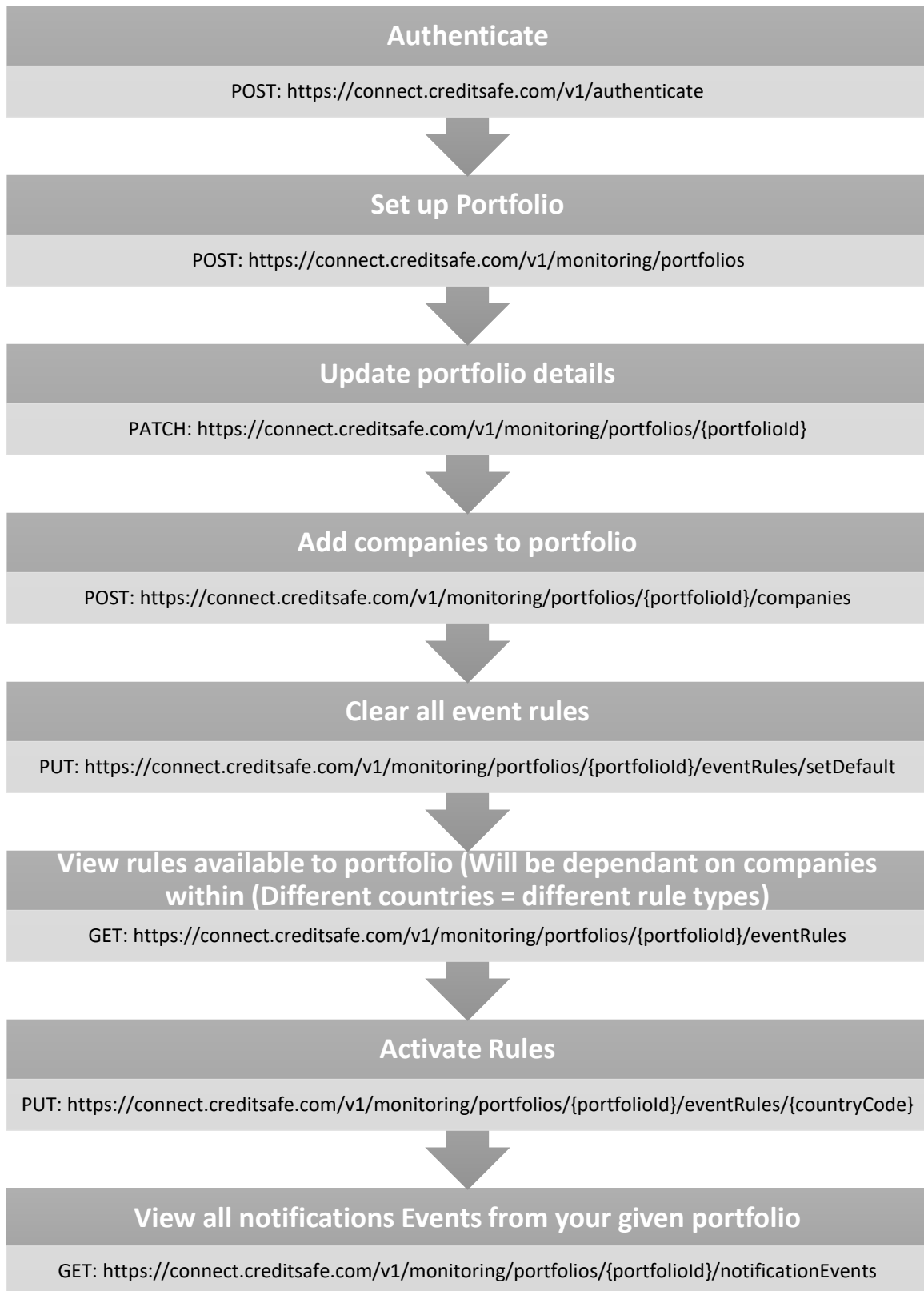
1. **Process Flow:** We will outline a clear process flow, guiding you through the necessary endpoints that need to be called to set up your first portfolio.

2. **Endpoint Details:** Each endpoint will be thoroughly explained, providing you with a deeper understanding of their functionalities.

3. **Notification Event Requirements:** Before you set up notification events, we will highlight the prerequisites to ensure a seamless experience.

4. **Accessing Available Portfolio Rules:** Learn how to access and utilize the available rules for the portfolio you have set up.

5. **Resetting Portfolio Rules**: Discover the steps to reset your portfolio rules, ensuring you have the flexibility to adapt to changing requirements.

6. **Event Rules with Multiple Parameters**: Some event rules require more than one parameter to activate. We will explain these rules in detail, providing examples of how to activate them and how to structure the request body using the PUT HTTP request.

NOTE: We highly recommend using the integration document available at: Creditsafe Connect API Documentation - Creditsafe for reference, which complements this help guide by providing additional insights into request parameters and responses.

Appendix A

In the appendix, you will find a compilation of more complex rules that may require multiple parameters to be entered. We have included examples for each rule, guiding you on how to activate them effectively while structuring the request body using the PUT HTTP request.

Integration Process Overview

Authenticate
POST: https://connect.creditsafe.com/v1/authenticate

Set up Portfolio
POST: https://connect.creditsafe.com/v1/monitoring/portfolios

Update portfolio details
PATCH: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}

Add companies to portfolio
POST: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/companies

Clear all event rules
PUT: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/eventRules/setDefault

View rules available to portfolio (Will be dependant on companies within (Different countries = different rule types)
GET: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/eventRules

Activate Rules
PUT: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/eventRules/{countryCode}

View all notifications Events from your given portfolio
GET: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/notificationEvents

Authentication

The authentication process is the initial and crucial step to access the API. Upon successful authentication, you will be provided with a unique 'Token'.

This token is **essential** for establishing a secure connection to the server and **MUST** be included in the 'Header' of every subsequent HTTP request.

Endpoint:

POST: https://connect.creditsafe.com/v1/authenticate

After making the authentication request, handle the response carefully to obtain the generated 'Token'. Subsequently, ensure that this token is passed into the header of all your HTTP requests to the server. This ensures that each call is associated with the authenticated session, allowing you to access the API's features seamlessly.

It is crucial to note that an 'Error Response 401' indicates an 'Invalid Token', which suggests that the token has expired (Tokens are valid for 1 hour). In such cases, re-authentication will be necessary to obtain a new valid token for uninterrupted API access.

Set Up a Portfolio

Before you can start utilizing the features of 'Global Monitoring,' the first step is to set up a Portfolio.

Endpoint:

POST: https://connect.creditsafe.com/v1/monitoring/portfolios

When making this POST request, you need to include a 'requestBody,' which allows for the following schema:

```
{
  "name": "Test Portfolio",
  "isDefault": false,
  "emails": [
      {
    "firstName": "John",
    "lastName": "Doe",
    "emailAddress": "John.Doe@creditsafe.com"
  }
  ],
  "emailSubject": "Creditsafe Monitoring Notification on portfolio Test Portfolio",
  "emailLanguage": "en"
}
```

The only item required in the 'requestBody' is the 'name' field, where you should provide a meaningful name for your Portfolio. This name will help you identify and manage your Portfolio effectively.

Upon a successful request, you will receive a response confirming the creation of your Portfolio:

```
{
    "portfolioId": 151696,
    "name": "Test Portfolio",
    "isDefault": false,
    "correlationId": "e38b1073-df84-4073-8402-06423389a14c"
}
```

The 'portfolioId' in the response is a unique identifier assigned to your newly created Portfolio. You will need to retain this ID as it will be essential for any future interactions or modifications related to this specific Portfolio.

Now that your Portfolio is set up, you can proceed to add portfolio details, monitoring rules, set notification events, and access various features provided by 'Global Monitoring.' This process lays the foundation for

utilizing the full potential of the API and allows you to stay informed and in control of critical events related to your business.

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Update Portfolio Details

To set up email notifications for the portfolio or make any other changes to its details (even if some details were previously supplied), you can achieve this by issuing a PATCH request with an updated 'requestBody' containing the email details.

To update the portfolio, you need to pass the specific 'portfolioId' in the URL path to identify the portfolio you want to modify.

Endpoint:

PATCH: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}

In the 'requestBody,' the required properties are **'name' and 'frequesncy'.** If you do not intend to change the name of the portfolio, make sure to include the current name in the **'name'** field to keep it unchanged.

To ensure the emails are activated, the property 'frequency' must be set to a string value of '1'.

An example requestBody would be:

```
{
  "name": "Test  Portfolio2",
  "isDefault": true,
  "emails": [
    {
      "firstName": "Will",
      "lastName": "Smith",
      "emailAddress": "will.smith@creditsafe.com"
    }
  ],
  "frequency": "1"
}
```

A successful Response will be displayed:

```
{
    "correlationId": "2cd6047a-8d1a-4140-9bfc-40a320837435",
    "message": "Portfolio 151696 updated"
}
```

In this example, we are updating the portfolio with a new portfolio name and email address. You can include any other optional properties you wish to modify, and the API will process those changes accordingly.

Upon a successful request, the portfolio details will be updated, and the changes will be reflected in the system. By using this PATCH endpoint, you have the flexibility to customize your portfolio and tailor it to your specific needs.

Remember to handle any potential error responses appropriately to ensure a smooth update process. With this capability, you can maintain an up-to-date and fully optimized portfolio, keeping you informed about the essential aspects of your business and enabling you to take proactive actions as needed.

Add Companies to Portfolio

Companies can be added to a portfolio in three separate ways: Individually or in bulk using an Import or Sync function to upload a csv file. See the three distinct categories described below:

Add Single Company to Portfolio

Endpoint:

POST: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/companies

To add a single company to the portfolio, you can use the following schema in the 'requestBody':

```
{
  "id": "GB-0-07941364" ,
  "personalReference": "Creditsafe Test",
  "freeText": "Just writing some test text here ",
  "personalLimit":  ""
}
```

Each company needs to be added to the portfolio with the aforementioned fields populated. The 'personalReference' and 'freeText' fields are intended for your internal references and notes, allowing you to keep track of additional information related to the company.

It is important to note that the 'personalLimit' is not part of the credit limit associated with the company; rather, it represents a limit you set internally for your own record-keeping purposes.

By using this endpoint, you can efficiently add individual companies to your portfolio, tailoring the information to suit your specific requirements.

Please continue reading for information on the two additional methods of adding companies to your portfolio using the Import or Sync functions with CSV files.

Import Multiple Companies to Portfolio

This endpoint enables you to upload a CSV file containing multiple companies to a designated portfolio. Existing companies in the portfolio will be skipped, and only new unique entries will be added. Please review the **key considerations (Note #2)** and guidance for using the 'Import' and/or 'Sync' functions.

Note #1:

Preferred file type: .csv

Acceptable file types: .csv / xls

Note #2:

Import and Sync functions are shared services, resulting in the process not being completed instantly incurring variable amounts of processing time.

Key Considerations:

When utilizing our API to submit files for processing, we highly recommend considering both the file size and format. Specifically, if the file size falls below 50Kb, or if you choose to submit CSV files instead of XLS files, the processing time can be quicker compared to submitting larger or XLS-format files. This advantage is due to the implementation of our advanced queuing system, which efficiently handles smaller files and CSV format, expediting their processing.

Best Practice: Breaking Down Files and Utilizing CSV Format

To establish a best practice for utilizing our API effectively and maximizing processing speed, we encourage two key strategies:

1. **Break Down Larger Files:**

   For larger datasets that exceed the recommended file size threshold, we recommend breaking them down into smaller, more manageable chunks. This practice allows our advanced queuing system to handle each smaller segment more efficiently, leading to quicker results and enhanced overall performance.

2. **Prefer CSV over XLS Format:**

   Whenever possible, choose CSV as the file format for your submissions. CSV files' simplicity and minimal overhead lead to faster processing times compared to the more complex XLS files.

Practical Considerations:

While we encourage the use of CSV format and breaking down larger files, we recognize that specific use cases may require XLS format or deal with larger datasets. In such scenarios, we recommend carefully evaluating the trade-offs between processing time and other factors to determine the most suitable approach.

Endpoint:

POST: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/import

Required header for the successful upload:

Safe No.	Local Org No.	Country Code	Optional Reference	Optional Free Text	Optional Personal Limit

If you are not sending all data fields, you need to leave the space for that field to be mapped.

Example:

UK04141103, ,   ,21127169,11664866

The entry above would be read as follows:

Safe No.	Local Org No.	Country Code	Optional Reference	Optional Free Text	Optional Personal Limit
UK04141103			21127169	11664866	

Note: If the 'Optional' fields are not going to be used they can be completely left from the CSV file.

However, if any of the 'Optional' fields are used, the empty headers preceding them MUST be allocated a blank space separated by a comma.

Please see numerous examples below:

Variations allowed to the submitted file and examples:

Safe Number can be substituted for 'ConnectID' if this is preferred in column A.

- It is noted that a greater success rate is achieved with 'Safe Number'.

Local Org No. can be used instead of 'Safe No.' or 'ConnectID', this makes the 'Country Code' a requirement.

- If the 'Local Org No.' is used, you **MUST** insert the blank space for the where the 'Safe Number' would be.

Example:

Safe No.	Local Org No.	Country Code	Optional Reference	Optional Free Text	Optional Personal Limit
	01777777	GB			

The example above would need to be entered as the following in .csv format:

, 01777777, GB

Example with Reference:

Safe No.	Local Org No.	Country Code	Optional Reference	Optional Free Text	Optional Personal Limit
	01777777	GB		This is a test	

The example above would need to be entered as the following in .csv format:

, 01777777, GB, , This is a test

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Sync A Portfolio File

To synchronize a portfolio file, use the following API instruction:

Endpoint: POST https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/sync

This endpoint allows you to add all companies from the file to the specified portfolio. However, unlike the 'Import' HTTP Request, there is a significant difference in the result.

The main distinction is that this endpoint does not ignore any existing companies in the portfolio. Instead, it deletes all previously allocated companies and replaces them with the contents of the uploaded file. If you want to retain all companies in the portfolio without deletion, please utilize the 'Import' endpoint.

View Event Rules Available to Portfolio

Before accessing all event rules, there is a prerequisite available to ensure a more targeted approach.

To get started, it is advised to call the 'Event Rules for the Portfolio,' which provides a filtered list of rules specifically available for the companies within that portfolio.

Endpoint:

GET: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/eventRules

By using this endpoint, you can view the event rules that are applicable to the companies within the specified portfolio. The API will automatically filter out any rules that are not relevant to the companies included in the portfolio, streamlining the process, and presenting you with the most pertinent information.

This approach allows you to focus on the rules that are directly relevant to your portfolio, saving time and effort in managing and understanding the available event rules.

```
[
    {
        "isActive": 0,
        "ruleCode": 101,
        "ruleCountryCode": "XX",
        "ruleType": 4,
        "ruleTypeName": "Rating band change - 3 input",
        "name": "International Rating  |{2} Return Band(A-
                E) |Reduce by {0} Band(s) OR Less than Band {1}",
        "param0": "1",
        "param1": "A"
    },
    {
        "isActive": 0,
        "ruleCode": 102,
        "ruleCountryCode": "XX",
        "ruleType": 5,
        "ruleTypeName": "Limit value change - 3 input",
        "name": "Limit |{0} Any |Reduce by {1}% OR Less than {2}",
        "param0": "True"
    },
]
```

Explanation of Properties:

1. **isActive**: This property indicates the status of the rule. When the value is '0', it means the rule is inactive, and when the value is '1', it signifies that the rule is active.

2. **ruleCode**: Rule codes starting with '10' are Global Rules, which apply universally to every country. These rules will always be selectable, regardless of the companies present in the portfolio.

3. **ruleCountryCode**: In some instances, the 'ruleCountryCode' is represented by 'XX.' To activate rules for specific countries, you must pass the respective 'countryCode' in the URL path. For example, if you pass 'XX,' the rules will affect all countries in that portfolio. However, if you pass 'GB,' the rules will apply only to companies in the Great Britain (GB) country code.

4. **ruleType**: This property represents a numerical representation of a specific rule property.

5. **ruleTypeName**: The 'ruleTypeName' provides a more descriptive version of the rule type, making it easier to understand the type of 'Event' being monitored.

6. **name**: This property describes the options available to specify the 'Event Notification Triggers' for the rule. It indicates whether [param0 | param1 | param2] parameters are required to initiate the rule. Please note that not all rules will necessitate these parameters.

Additional Information:

There is a limited set of rules that require the [param0 | param1 | param2] settings. For a comprehensive list of these specific rules, refer to Appendix A, where you can find detailed information about each rule and how to configure the [param0 | param1 | param2] parameters to activate them. This information will help you understand the rules better and make informed decisions while setting up event notifications for your portfolio.

Activate Rules

To activate the rules, you require for a specific portfolio, utilize the information provided earlier and make use of the following API endpoint:

Endpoint:

PUT: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/eventRules/{countryCode}

```
[
  {
    "ruleCode": 101,
    "isActive": 1,
    "param0": "null",
    "param1": "any"
  }
]
```

Key Information:

Global Rules are set by using the following endpoint adaption from above:

PUT: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/eventRules/XX

Global Rule Codes: 101, 102, 104, 105, 106, 107

Local Rules are set by using the required country code (Example below uses France):

PUT: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/eventRules/FR

It is NOT possible to use a Global Rule against the Local Rule Endpoint, this will result in an error response.

- Global rules apply to any country in a portfolio.

- Local rules apply to country selected by the user.

In the URL path, replace '{portfolioId}' with the ID of the target portfolio and '{countryCode}' with the specific country code you wish the rules to apply to.

When making the PUT request, you need to include a 'requestBody' to specify the rules you want to activate. For rules that do not utilize the 'param' properties, you can simply omit the 'param' property from the 'requestBody'.

___

Important Note:

When updating the event rules within an active portfolio, it's essential to resubmit the entire list of rules, including both existing and new ones. This comprehensive update ensures that all rules are correctly applied and functioning as intended. After updating, we recommend verifying the active rules for your portfolio.

You can do this by accessing the event rules endpoint:

GET: **https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/eventRules.**

Reviewing the active rules allows you to confirm that all changes have been successfully implemented and are in effect.

___

For rules that require 'param' properties to be set, refer to Appendix A, which contains details about the rule codes and how to utilize the 'param' properties to activate different elements and select your variables accordingly. This appendix will provide you with valuable insights into setting up the rules correctly.

By using this endpoint effectively and configuring the 'requestBody' appropriately, you can activate the desired rules for the specified portfolio and country code. This allows you to tailor the monitoring capabilities of the API to meet the specific requirements of your business and effectively track critical events related to your portfolio companies.

View All Notification Events from a Portfolio

To view all notification events that have occurred in a portfolio, you can use the following API endpoint:

Endpoint:

GET: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/notificationEvents

In the URL path, replace '{portfolioId}' with the ID of the specific portfolio you want to view the notification events for.

By making a GET request to this endpoint, the API will provide you with a comprehensive list of all the notification events that have occurred within the specified portfolio. This includes events such as credit limit changes, company updates, and other critical information related to the companies in the portfolio.

This feature enables you to stay updated with the latest events and changes relevant to your portfolio, allowing you to monitor and respond to important developments in a timely manner. By leveraging this endpoint, you can gain valuable insights into the activities of the companies in your portfolio and make informed decisions to safeguard your business interests effectively.

Reset All Event Rules to Default

Requesting this end point will set all event rules within a portfolio to 'Off'.

Endpoint:

PUT: https://connect.creditsafe.com/v1/monitoring/portfolios/{portfolioId}/eventRules/setDefault

In the URL path, replace '{portfolioId}' with the ID of the specific portfolio for which you want to reset all event rules to 'Off'.

By making a PUT request to this endpoint, the API will process the request and set all event rules within the specified portfolio to 'Off'. This means that all event monitoring will be disabled for the companies in the portfolio, effectively resetting the rules to their default state.

Using this endpoint is useful if you want to temporarily pause event monitoring or start with a clean slate, and then you can later activate specific event rules as needed.

Please note that using this endpoint is a significant action, and it will disable all event rules within the specified portfolio. Make sure to use it judiciously and with a clear understanding of its implications.

APPENDIX A

Rule 101 - International Score banding change (A-E):

- Param 0: Enter a number (1, 2, 3, 4 or null) indicating how many bands the change must reduce by to receive a notification.

- Param 1: Enter a string value (A, B, C, D, or Any) to specify the band under which any changes should be notified. Use "Any" to receive notifications for any band changes.

To acquire notifications for any changes within any band select the following settings:

- Param 0: Enter ["null"]
- Param 1: Enter ["Any"]

See the Example code in 'Activate Rules'

This will create notifications when any changes happen throughout any band.

Rule 102 - Credit Limit Value change:

- Param 0: Set this parameter to "true" or "false" to override other parameters and receive notifications for any credit limit changes.

- Param 1: Enter a numeric value indicating the percentage by which a credit limit must reduce to trigger a notification.

- Param 2: Enter a numeric value to set the threshold for the credit limit. You will be notified when the credit limit falls below this value.

Rule 801 - FI Local Rating Score change:

- Param 0: Enter a numeric value indicating the amount by which the rating score must increase or decrease to trigger a notification. For example, if Param 0 = 20, you will be notified if the rating score increases by at least 20 or decreases by 20 or more.

Rule 901 - NO Local Rating Score change:

- This rule follows the same logic as Rule 801 for local rating score changes.

Rule 1601 - US - Rating change increases or decreases:

- Param 0: Enter a percentage value indicating the minimum percentage by which a rating must change to trigger a notification.
- Param 1: Enter a value indicating the minimum increase or decrease in the rating score to trigger a notification. For example, if the rating increases or decreases by 10% or the value change is greater than twenty, you will receive a notification.

Rule 1604 - US - DBT (Days Beyond Terms) Change:

- This rule is like Rule 1601, but instead of the rating, it monitors the change in the value of DBT (Days beyond terms).

Rule 1503 (NL - Credit Score):

- Param 0: Enter a percentage value indicating the drop in credit score that will trigger a notification. For example, if the score decreases by 20%, you will receive a notification.

Rule 1703 (BE):

- Param 0: Enter a percentage value indicating the drop in credit score that will trigger a notification. For example, if the score decreases by 20%, you will receive a notification.

Rule 2000 (DE - Credit Limit):

- Param 0: Enter a percentage value indicating the change in the credit limit of a DE Registered Company that will trigger a notification. For example, if the credit limit or score increases or decreases by 20%, you will be notified of the change.

Rule 2001 (DE - International Credit Score):

- Param 0: Enter a percentage value indicating the change in the credit score of a DE Registered Company that will trigger a notification. For example, if the credit limit or score increases or decreases by 20%, you will be notified of the change.

Rule 2201 (ES - New Accounts Field):

- This rule is for event changes and do not require any additional parameters. Set the "isActive" parameter to 1 to enable notifications for these events.

Rule 2202 (ES - Company Status):

- This rule is for event changes and do not require any additional parameters. Set the "isActive" parameter to 1 to enable notifications for these events.

Rule 2203 (ES - Judicial Event):

- This rule is for event changes and do not require any additional parameters. Set the "isActive" parameter to 1 to enable notifications for these events.

Rules 2009 (DE - Non-Reg Credit Limit):

- Param 0: Enter a percentage value indicating the change in the credit limit of a DE non-registered company that will trigger a notification. For example, if the credit limit or score increases or decreases by 20%, you will be notified of the change.

Rule 2010 (DE - Non-Reg Credit Score):

- • Param 0: Enter a percentage value indicating the change in the credit score of a DE non-registered company that will trigger a notification. For example, if the credit limit or score increases or decreases by 20%, you will be notified of the change.

Rule 1606 - US - Derogatory filing count:

- • Param 0: Enter a percentage value indicating the increase or decrease in the filing count that will trigger a notification.

- • Param 1: Enter a value indicating the minimum change (increase or decrease) in the filing count that will trigger a notification. For example, you can set it to get notified if the change is bigger than 10% or greater than 20.

Rule 1607 - US - Derogatory filing Outstanding amount:

- • Param 0: Enter a percentage value indicating the increase or decrease in the outstanding amount that will trigger a notification.

- • Param 1: Enter a value indicating the minimum change (increase or decrease) in the outstanding amount that will trigger a notification. Use this parameter like Rule 1606.

- • Please note that these instructions provide guidance on how to set up each rule according to the specified parameters.