Standard Carrier Alpha Code™ (SCAC®)

Web Services API Manual

Version 2.0
December 13, 2024

National Motor Freight Traffic Association, Inc. (NMFTA)™ Standard Carrier Alpha Code™ (SCAC®) Administration Manual Version 2.0.

Designed and developed by National Motor Freight Traffic Association, Inc. (NMFTA).

Contents

Preface

This document is intended for NMFTA customers when using the SCAC Web Services.

Customer Support

To contact NMFTA Support:

- By email: customerservice@nmfta.org
- By phone: 1.866.411.6632

When contacting Customer Support, please provide the following:

- Product version and program/module name.
- Functional and technical description of the problem, including business impact.
- Detailed step-by-step instructions to re-create.
- Exact error message received and any associated log files, if applicable.
- Screenshots of each step you take, if applicable.

Documentation Support

Send documentation questions, issues, or update requests to documentation@nmfta.org.

When contacting Documentation Support, please provide the following:

- Document name and version.
- Location of issue or update request, such as page number or topic name.
- Description of the issue or update request.

Documentation Revision History

Product Version	Date	Description of Change
2.0	September 25, 2024	Initial publication.
2.0	December 13, 2024	Added the following section: - Swagger

1 Purpose

This document provides:

- Guidance for consuming SCAC Web Service
- Description of the web methods and XML structure
- Instructions for managing SCAC Web Service license
- Sample Code

Web Service Access Requirement

To access SCAC web service, the following are required:

- SCAC account - a SCAC account consists of an email address and password.
    - Client ID
    - Client Secret
- To obtain a SCAC account, purchase a license, contact the NMFTA Customer Service via email, phone, or fax at:
    - Email: customerservice@nmfta.org
    - Phone: 1-866-411-6632

2 Functional Overview

About SCAC Web Service

The SCAC service provides licensed users access to the SCAC Online system data via web services. The SCAC service also provides the ability to search and receive back the results in JSON format.

SCAC Swagger/Open AI Location

The SCAC Open AI Specification is located at https://scaccode.com/scac/scac-api.

SCAC Web Methods

SCAC Web Service includes the following web methods:

- Auth (See Authenticate for more information.)
- Search (See Search for more information.)
- AvailableForMonth (See AvailableForMonth for more information.)
- UsageReport (See UsageReport for more information.)

3 Security

SCAC Web Service uses standard 128-bit data encryption over an SSL connection. The web service requires requestor authentication. The Web Service uses a combination of http basic auth and http barer auth.

The server IP Address is 20.49.104.33. The required https communication will only work with https://scacapi.scaccode.com.

The web service implements a token-based authentication. The `Authenticate` web method validates the requestor credentials and generates a Token. The Token can then be used to access to the remaining web methods.

4 Web Service API Methods

Authenticate

The *Authenticate* method validates your SCAC Web Service license with NMFTA and returns a JWT response. Basic auth is used to communicate with the Authentication method. Use this JWT to access all the other web methods. The token is valid for 24 hours. For all other API calls the JWT must be included in the Authorization header as a Bearer token.

Header Name	Description
Authentication	Basic Base64(<clientId>:<clientSecret>)

> **NOTE:**
>
> An example Authentication method auth header:
>
> http basic auth is base64 encoded format.
>
> Basic Base64(<clientId>:<clientSecret>)
>
> EX: Base64(abc:123) => YWJjOjEyMw==
>
> Header
>
> Authentication: Basic YWJjOjEyMw==

Method Definition

Http Method: POST

Basic Authentication: client Id and password sent in the Authorization header

URL: https://scacapi.scaccode.com/Authentication/auth

Table 4-1 Authentication Parameter Name, Description, and Data Type

Parameter Name	Description	Data Type
client Id / username	The client Id provided on your profile page.	• String
client secret /password	The client Id provided on your profile page.	• String

Method Result

Table 4-2 Authentication Method JSON Result

Result Status	Result JSON String
Success	```{ "access_token": "aaaaaaaa", "token_type": "Bearer", "expires_in": 86400, "success": true, "errorMessage ": null }```
Failure	```{ "access_token": null, "token_type": null, "expires_in": 0, "success": false, "errorMessage ": "Unauthorized" }```

Table 4-3 Authentication Method Result Definition

JSON Properties	Description	Data Type
access_token	Encrypted token key. Pass this security token as the first parameter when requesting any SCAC web methods. *NOTE: Token keys expire after 24 hours. (See TokenExpiration).*	• String • JWT
token_type	Authentication type is Bearer.	• String • Valid Values – Bearer
expires_in	Token expiration time is set to 24 hours from the time of authenticate.	• integer
success	Identifies if the method call completed successfully.	• Boolean • Valid Values: – True – False
errorText	Error description.	• String

Search

The *Search* method performs a search and retrieves SCAC information. All the parameters are used for matching the closest set of records that starts with the passed in parameter value(s). For example, passing "AB" will search for all SCAC records that begin with "AB". Each parameter value helps narrow down the list of matched records. For example, passing "AB" for SCAC and "123" for mcNumber will bring back all records that starts with "AB" and "123" for SCAC and MCNumber respectively.

At least one of the following parameters should have a value:

- scac
- mcNumber
- dotNumber
- companyName

Method Definition

Http Method: POST

Authorization header: Bearer JWT

URL: https://scacapi.scaccode.com/SCACSearch

Table 4-4 Search Method Parameter Name, Description, and Data Type

Parameter Name	Description	Data Type
scac	Standard Carrier Alpha Code (SCAC). Can be partial.	• Optional • String • Min. Length = 2 • Max. Length = 4
mcNumber	MC Number. Can be partial.	• Optional • String • Min. Length = 3 • Max. Length = 20
dotNumber	US DOT Number. Can be partial.	• Optional • String • Min. Length = 3 • Max. Length = 20
companyName	Company Name. Can be partial.	• Optional • String • Min. Length = 3 • Max. Length = 100

Parameter Name	Description	Data Type

excludeExpiredCode	Exclude expired SCAC from the search result list. Can be *true* or *false*.
	
	• Pass *true* to search and receive active records only.
	
	• Pass *false* to search and receive:
	  – Active records
	  – Records that have expired in the past three years from the current date.
		• Optional
		• Boolean
		• Valid Values:
		  – True
		  – False
		• Default is True

exactMatch	Any term entered must be an exact match (but not case-sensitive) to data in the database. For example:
	  – SCAC
	  – Company Name
	  – MC Number
	  – DOT Number
		• Boolean
		• Default is False

page	If the search result has more than 25 hits, the result is broken into multiple pages. Use this parameter to retrieve a specific page from the search result.	• Integer • Min. Value = 1

sortField	Identifies which field is to use to sort the search result.	• String Enumeration
		• Valid Values
		  – SCAC
		  – MCNumber
		  – DOTNumber
		  – CompanyName

sortOrder	Identifies the sorting order of the search result.	• String Enumeration
		• Valid Values
		  – ASC
		  – DESC

Method Result

Table 4-5 Search Method JSON Result

Result Status	Result JSON String

Success	<pre>{
	    "items": [
	        {
	            "companyName": "AKRON & RAILROAD COMPANY",
	            "scac": "ABB",
	            "addressLine1": 340 fake st,
	            "addressLine2": null,
	            "city": "BARBERTON",
	            "stateProvince": "FL",
	            "postalCode": "00000",
	            "countryCode": "USA",
	            "phone": "5555555",
	            "scacEndDate": "2025-01-24T00:00:00",
	            "dbaName": "",
	            "dotNumber": "00000",
	            "mcNumber": "",
	            "status": "Active"
	        },
	        {
	            "companyName": "BEST CARRIER",
	            "scac": "ABBA",
	            "addressLine1": 123 fake st.,
	            "addressLine2": null,
	            "city": "CITY OF INDUSTRY",
	            "stateProvince": "NY",
	            "postalCode": "00000",
	            "countryCode": "USA",
	            "phone": "5555555",
	            "scacEndDate": "2025-04-24T00:00:00",
	            "dbaName": "",
	            "dotNumber": "00000",
	            "mcNumber": "828088",
	            "status": "Expired"
	        }
	    ],
	    "currentPage": 1,
	    "totalCount": 2,
	    "totalPages": 1,
	    "success": true,
	    "errorMessage ": null
	}</pre>

Failure	<pre>{
	    "success": false,
	    "errorMessage ": "string"
	}</pre>
	See error message section for list of errors

Table 4-6 Search Method Result Definition

JSON Properties	Description	Data Type

Success	Identifies if the method call completed successfully.	• Boolean
		• Valid Values:
		  – True
		  – False

TotalPages	Total Number of pages in search result.	• Integer
CurrentPage	Current Page from the search result.	• Integer
TotalCount	Total number of hits for the passed in search "keyword".	• Integer
Items	A single matching SCAC Record. Each SCAC record include the following properties that describe the SCAC. • *Scac* – SCAC • *ExpirationDate* – SCAC expiration date • *MCNumber* – MC Number • *DOTNumber* – US DOT Number • *CompanyName* – Company Name • *AddressLine1* – Address Line 1 • *AddressLine2* – Address Line 2 • *City* – City • *StateProvince* – State or Province • *CountryCode* – Country Code • *PostalCode* – Postal Code • *PhoneNumber* – Phone Number • *Status* – SCAC Status (Active/Inactive)	• JSON Array • Min Occurs = 1 • Max Occurs = Unlimited
ErrorMessage	Error description.	• String

Error Messages

Table 4-7 Error Messages

Message String
• No filters have the minimum length.
• At least one filter needs a value.
• Quota reached.
Page number must be within TotalPage range.
Scac length (7) > allowed length (4).
There are no results for your search. You can do a partial search by setting exactMatch = false
There are no results for your search
There was a problem with the query.

AvailableForMonth

The *AvailableForMonth* method retrieves information about the number of transactions available for the current month.

Method Definition

Http Method: POST

Authorization header: Bearer JWT

URL: https://scacapi.scaccode.com/Account/AvailableForMonth

Method Result

Table 4-8 AvailableForMonth Method JSON Result

Result Status	Result JSON String
| Success | ```json
{
    "currentCount": 5,
    "allowedTotal": 1000000,
    "availableTotal": 999995,
    "periodStart": "2024-09-01T00:00:00",
    "periodEnd": "2024-09-30T00:00:00",
    "success": true,
    "errorMessage ": null
}
``` |
| Failure | ```json
{
    "success": false,
    "errorMessage ": "There was a problem with your request."
}
``` |

Table 4-9 AvailableForMonth Method Result Definition

JSON Properties	Description	Data Type
Success	Identifies if the method call completed successfully.	• Boolean • Valid Values: – True – False
PeriodStart	Starting date for the month.	• Datetime
PeriodEnd	Ending date for the month.	• Datetime
AllowedTotal	Total number of allowed transactions per month.	• Integer
CurrentCount	Total number of used transactions.	• Integer
AvailableTotal	Remaining number of transactions available for the month.	• Integer
ErrorMessage	Error description.	• String

UsageReport

The *UsageReport* method retrieves the usage data for the specified period.

Method Definition

Http Method: POST

Authorization header: Bearer JWT

URL: https://scacapi.scaccode.com/Account/UsageReport

Table 4-10 UsageReport Method Parameter Name, Description, and Data Type

Parameter Name	Description	Data Type
startDate	Start Date for the time period.	• Date as a string
endDate	End Date for the time period.	• Date as a string

Method Result

Table 4-11 UsageReport Method JSON Result

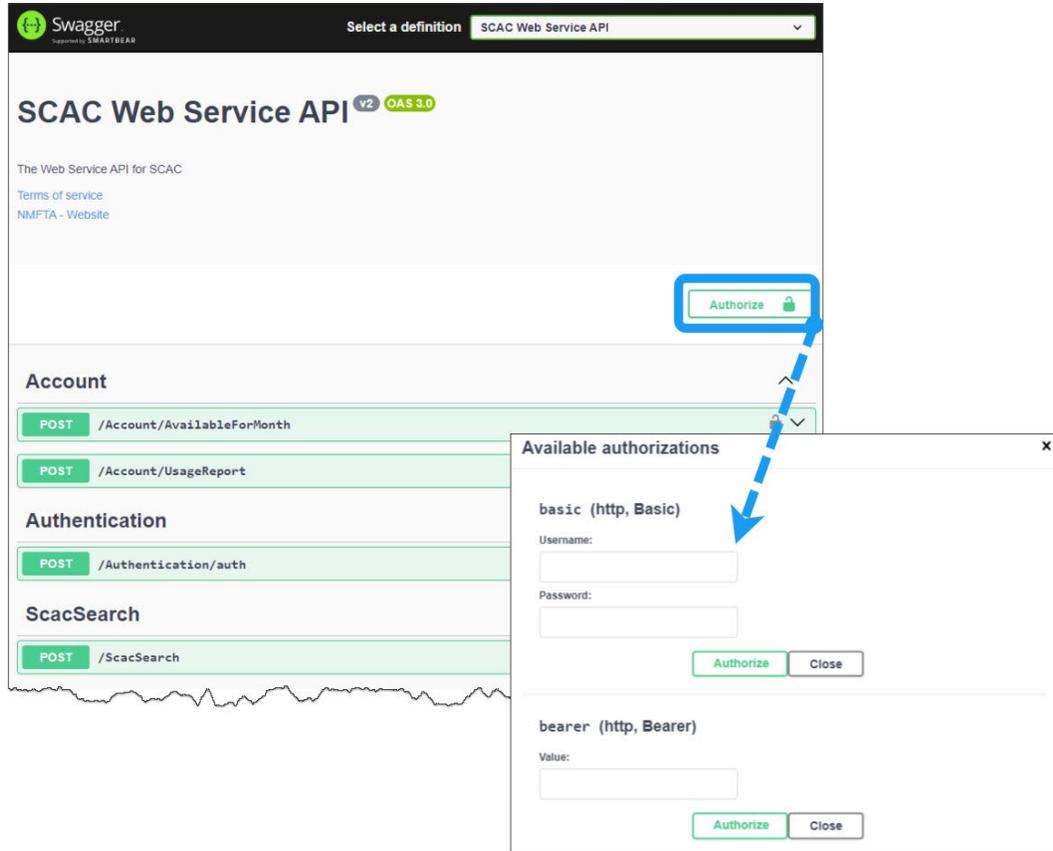| Result Status	Result JSON String
Success	```{ "days": [{ "date": "2024-09-11", "count": 3 }, { "date": "2024-09-12", "count": 5 }], "queryTotal": 9, "success": true, "errorMessage ": null }```
Failure	```{ "success": false, "errorMessage": "There was a problem with your request." }```

Table 4-12 UsageReport Method Result Definition

JSON Properties	Description	Data Type
Days	Array of days.	• Min Occurs = 0 • Max Occurs = Unlimited
Date	Transaction Date.	• Datetime
Count	Total number of requests per day.	• Integer
ErrorMessage	Error description.	• String

5 Swagger

For testing your credentials and the API follow these steps:

1. Go to https://scacapi.scaccode.com/nmftaapi/swagger/index.html and click **Authorize**. The Available Authorizations screen opens.
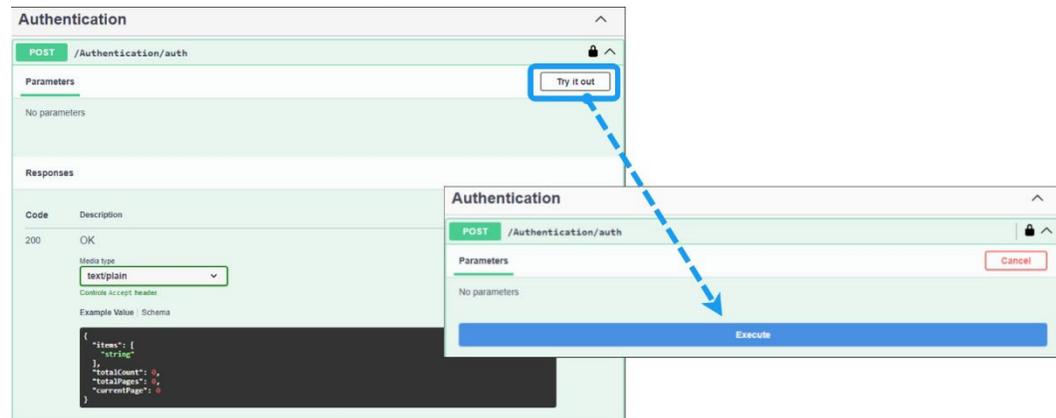2. Enter **Username** and **Password**, then click **Authorize**.

Figure 5-1 Entering Username and Password

The **Authentication/Auth** field's grey lock 🔓 icon on the SCAC Web Services API screen is now black.
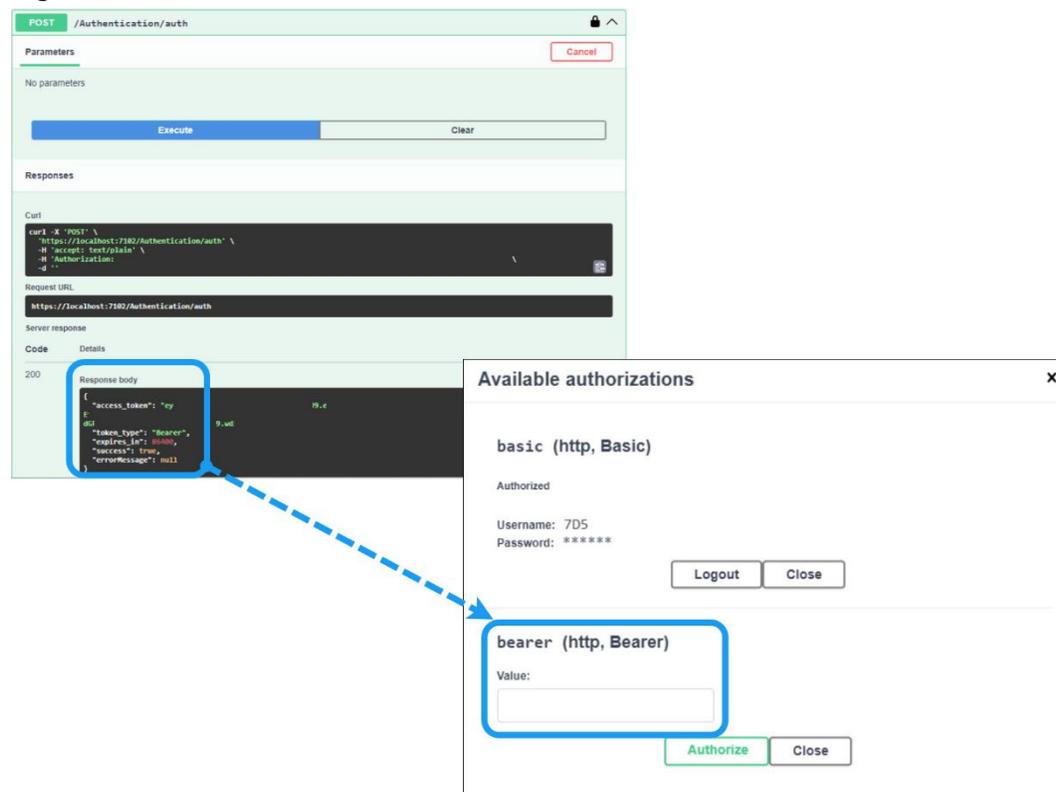
3. Go back to the SCAC Web Services API screen and click on the **Authentication/Auth** header to expand.
4. Click **Try It Out**, then click **Execute**

Figure 5-2 Authentication Endpoint

5. Copy the **Token Code** text in the **Response** body field.
6. Go back to the top of the page and click **Authorize**. The Available Authorizations screen opens. Paste the **Token Code** into the **Bearer** field.
7. Click the **Authorize** button.

Figure 5-3 Token Code

8. Click **Close**. All locks on the Authentication screen are now black.
9. To test, go to the **SCACSearch** header and click **Try It Out**. See section above for parameters allowed.

6 Subscription Management

To manage and access your account, log into SCAC (https://scaccode.com/) and go to your Account Profile. There, you can access the following features for managing your subscription:

- Generate a new password/key.
- Renew your product's subscription.
- Access additional documentation and code samples.
- View your subscription's license agreement.

> **NOTES:**
>
> - For more information on managing your account, see the applicable user manual on our website at https://nmfta.org/scac-resources.
>
> - For further assistance, please visit the Customer Support page at https://nmfta.org/contact.