

Following are the steps needed to use our Reporting APIs from Postman using HMAC Authentication Signature

01: Add the URL

Example: <https://prod.api.fiservapps.com/reporting/v1/authorization/search>

02: Select the HTTP Methods used in the restful webservices like **GET, POST**

POST https://prod.api.fiservapps.com/reporting/v1/authorization/search

Body **raw** **JSON**

```
1
2 {
3     "fromDate": "20210801",
4     "toDate": "20210807",
5     "limit": 1,
6     "fields": [
7         "Network",
8         "ApprovalCode",
9         "Amount",
10        "AuthCode",
11        "OrdnNo"
12    ],
13    "filters": {
14        "approvalCodes": [
15            "Approved"
16        ],
17        "paymentMethods": [
18            "ENV"
19        ],
20        "networks": [
21            "Master"
22        ],
23        "types": [
24            "Purchase"
25        ],
26        "siteIDs": [
27            "11111111"
28        ],
29        "authCode": "I781Q1"
30    }
31 }
```

03: In the Body section, enter the request Body used to make an API Call

04: The request body format should be **raw**

05: The request body format should be **JSON** as well.

06: Go to **headers {a}** section and click on **Bulk Edit {b}** as shown and enter the headers in **step 07**

Headers **Cache-Control** **Postman-Token** **Content-Type** **Content-Length** **Host**

Bulk Edit

07: Copy and paste the below headers as shown

Content-Type:Application/Json

Client-Request-Id:{ClientRequestId}}

Api-Key:{key}}

Timestamp:{time}}

Authorization:{signature}}

Auth-Token-Type:HMAC

The screenshot shows the Postman interface with a POST request to the URL `https://prod.api.fliservapps.com/reporting/v1/authorization/search`. The Headers tab is active, displaying the following header values:

- Content-Type:Application/Json
- Client-Request-Id:{ClientRequestId}
- Api-Key:{key}
- Timestamp:{time}
- Authorization:{signature}
- Auth-Token-Type:HMAC

A callout box labeled "STEP - 07" points to the Headers section.

08 : Go to **Scripts {a}** and select **Pre-request {b}** to Enter the **HMAC signature{c}** as follows:

```
var key = '{{YOUR KEY}}';
var secret = '{{YOUR SECRET}}';
var ClientRequestId = Math.floor(Math.random() * 10000000) + 1;
var time = new Date().getTime();
var method = request.method;
var requestBody = request.data;
var rawSignature = key + ClientRequestId + time + requestBody;
var computedHash = CryptoJS.algo.HMAC.create(CryptoJS.algo.SHA256,
secret.toString());
computedHash.update(rawSignature);
computedHash = computedHash.finalize();
var computedHmac = b64encode(computedHash.toString());

postman.setEnvironmentVariable('key', key);
```

```
postman.setEnvironmentVariable('time', time);
postman.setEnvironmentVariable('signature', computedHmac);
postman.setEnvironmentVariable('ClientRequestId', ClientRequestId)

function b64encode (input) {

    var swaps = ["A", "B", "C", "D", "E", "F", "G", "H", "I", "J", "K", "L", "M",
        "N", "O", "P", "Q", "R", "S", "T", "U", "V", "W", "X", "Y", "Z",
        "a", "b", "c", "d", "e", "f", "g", "h", "i", "j", "k", "l", "m",
        "n", "o", "p", "q", "r", "s", "t", "u", "v", "w", "x", "y", "z",
        "0", "1", "2", "3", "4", "5", "6", "7", "8", "9", "+", "/"],

    tb, ib = "",
    output = "",
    i, L;

    for (i=0, L = input.length; i < L; i++) {
        tb = input.charCodeAt(i).toString(2);
        while (tb.length < 8) {
            tb = "0"+tb;
        }
        ib = ib + tb;
        while (ib.length >= 6) {
            output = output + swaps[parseInt(ib.substring(0,6),2)];
            ib = ib.substring(6);
        }
    }

    if (ib.length == 4) {
        tb = ib + "00";
        output += swaps[parseInt(tb,2)] + "=";
    }
}
```

```

if (ib.length == 2) {

    tb = ib + "0000";

    output += swaps[parseInt(tb,2)] + "==";

}

return output;

}

```

POST https://prod.api.fiservapps.com/reporting/v1/authorization/search

Params Authorization Headers (15) Body Scripts Settings

Pre-request

```

1 var key = '{{YOUR KEY}}';
2 var secret = '{{YOUR SECRET}}';
3 var ClientRequestId = Math.floor((Math.random() * 10000000) + 1);
4 var timestamp = Date.now();
5 var method = request.method;
6 var requestBody = request.data;
7 var hmacSignature = key + ClientRequestId + timestamp + requestBody;
8 var computedHash = CryptoJS.algo.HMAC.create(CryptoJS.algo.SHA256, secret.toString());
9 computedHash.update(hmacSignature);
10 var computedHash = computedHash.finalize();
11 var computedHash = b64encode(computedHash.toString());
12 var computedHash = computedHash.toString();
13 process.env.setEnvironmentVariable('key', key);
14 process.env.setEnvironmentVariable('time', timestamp);

```

Post-response

```

1 var hmacSignature = key + ClientRequestId + time + requestBody;
2 var computedHash = CryptoJS.algo.HMAC.create(CryptoJS.algo.SHA256, secret.toString());
3 computedHash.update(hmacSignature);
4 computedHash = computedHash.finalize();
5 var computedHash = b64encode(computedHash.toString());
6 var computedHash = computedHash.toString();
7 process.env.setEnvironmentVariable('key', key);
8 process.env.setEnvironmentVariable('time', time);

```

Body Cookies Headers (16) Test Results

09 : Now Click on **Send {a}** button to see the **desired response {b}**:

POST https://prod.api.fiservapps.com/reporting/v1/authorization/search

Params Authorization Headers (15) Body Scripts Settings

Connection Content-Type Client-Request-Id

keep-alive Application/Json {{ClientRequestId}}

Body Cookies Headers (16) Test Results

Pretty Raw Preview Visualize JSON

```

1 {
2     "country": "USA",
3     "approvalCode": "Approved",
4     "originalCredit": "Unknown",
5     "regulated": "RegulatedWithFraud",
6     "bin": "528757",
7     "reliable": "Unknown",
8     "productType": "Unknown",
9     "issuer": "CITIBANK N.A.",
10    "network": "Master",
11    "moneyTransfer": "RejectMTX",
12    "EBTState": "Unknown",
13    "debitNetwork": "Unknown",
14    "creditNetwork": "Unknown",
15    "onlineGaming": "RejectOGTxn",
16    "fastFunds": "Domestic",
17    "billingCurrency": "USD",
18    "details": "DebitByCard",
19    "id": "391329",
20    "cardBrand": "Master",
21    "cardClass": "Consumer",
22    "amount": 4.55,
23    ...
}

```

Send

STEP - 09 {a}

STEP - 09 {b}