

FFIEC Central Data Repository

**Software Interface Specification
SIS611 Retrieve Public Data via Web Service**

Version 1.10

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Software Interface Specification

SIS611 Retrieve Public Data via Web Service

1 Introduction

The Federal Financial Institution Examination Council (FFIEC) Central Data Repository (CDR) Public Data Distribution (PDD) Public Web Services (PWS) allow users to automatically retrieve public data from CDR using their own client.

This document describes the collection of Representational State Transfer (REST) application programming interface (API) definitions and usage formats that are available to CDR PWS users.

2 REST Web Service API Authentication and Configuration

The API system authenticates the user using the OAuth2.0 authentication integrated with Azure API Management (APIM) service.

2.1 Authentication Headers

All the CDR PDD REST APIs described in this document will require the headers in the below table. Any additional headers required are listed for each API in the below sections.

| Header Name | Description |
|----------------|--|
| UserID | The username of the user that signs in to use the API. |
| Authentication | User's security token with "Bearer " preceding it. |

2.1.1 User Account

Users must establish and maintain a CDR PWS account with a valid email to obtain a security token for use with APIs.

Please note that after a year of inactivity, the account will be removed, and the user will have to register again.

2.1.2 Security Token Lifetime

The security tokens have expiration dates. Users must log into their PWS account to generate a new token at least every 90 days.

2.2 API URLs

The URL endpoint format is:

- <https://ffieccdr.azure-api.us/public/<insert API function>>

2.3 Sample Code

A sample client (executable and .NET source code) is available for download from the Software Downloads tab after PWS user login on the CDR PDD website.

2.3.1 Required Libraries

- Newtonsoft.Json;
- System.Net.Http;

2.3.2 API Call

Call the API with the user's security token.

```
var client = new HttpClient();

client.DefaultRequestHeaders.Add("Authentication", "Bearer " + token);
client.DefaultRequestHeaders.Add("UserID", <userID>);

HttpResponseMessage response = await client.GetAsync("<Insert CDR APIM URL>" +
<APICall Endpoint>).Result;
```

The URL that is passed in points the calls into APIM where it will validate the security token within the header of the request by checking it against Microsoft EntraID.

```
if (response.IsSuccessStatusCode)
{
    var jsonData = response.Content.ReadAsStringAsync().Result

    var data = JsonConvert.DeserializeObject<RequiredObject>(jsonData);
    Console.WriteLine("API Response: " + data);
}
else
{
    Console.WriteLine($"API call failed with status code: " +
response.StatusCode);

    string errorContent = response.Content.ReadAsStringAsync().Result;
    Console.WriteLine(errorContent);
}
```

In the event the call fails with a status code of 401 (Unauthorized), double check that the security token is being passed into the header properly along with Bearer being added to the front of it and has not expired.

3 Available Web Method APIs for Retrieving Data

This section lists the public web methods supported.

| Method | Description |
|--|---|
| RetrieveReportingPeriods | This method retrieves a list of all reporting period end dates available for the Call data series. |
| RetrievePanelOfReporters | This method retrieves information for the financial institutions in the Panel of Reporters (POR) expected to file for a given Call reporting period. |
| RetrieveFilersSinceDate | This method retrieves a list of ID RSSDs for financial institutions that have filed for the given reporting period after a given date and time, and whose new filings are available for public distribution. |
| RetrieveFilersSubmissionDateTime | This method retrieves the ID RSSDs and submission date and time of the reporters who have filed after a given date and time, and whose new filings are available for public distribution. |
| RetrieveFacsimile | This method retrieves a byte array stream of the requested facsimile file. The client must de-serialize the stream into a file in its local file system. SDF text files can be viewed and modified using spreadsheet or database software (e.g., Excel, Access) or with a text editor (e.g., NotePad). XBRL files require an XBRL editor. A taxonomy may have to be downloaded after the XBRL files have been downloaded for a better understanding of the file. The taxonomy may be accessed through the PDD web site. |
| RetrieveUBPRReportingPeriods | This method retrieves a list of all reporting period end dates available for the UBPR data series. |
| RetrieveUBPRXBRLFacsimile | Call to retrieve a byte array stream of the requested XBRL instance document. The client must de-serialize the stream into a file in its local file system. XBRL files require an XBRL editor. A taxonomy may have to be downloaded after the XBRL files have been downloaded for a better understanding of the file. The taxonomy may be accessed through the PDD web site. |

3.1 Hourly Transaction Limit

Currently, the PWS will allow a limited number of downloads (approximately 2500 per hour). If the download limit has been reached within one hour, the user will have to wait until the next hour to continue with the next download.

The following process is recommended to identify and download recently filed data:

1. (This step is optional and need only be run once a quarter.) Run the `RetrieveReportingPeriods` method to get a list of Call reporting periods.
2. (This step could be done once a week or once a day.) For each desired reporting period, run the `RetrieveFilersSinceDate` (or `RetrieveFilersSubmissionDateTime`) method to get a list of ID RSSDs for banks that have recently submitted. Make sure to update the `lastUpdateDateTime` parameter to the last time you ran the method for the reporting period to limit the results to new data.
3. Iterating through the list of ID RSSDs returned for each reporting period, run the `RetrieveFacsimile` (or `RetrieveUBPRXBRLFacsimile`) to retrieve the facsimiles.

Please account for the 2500 transaction limit while executing these steps. For example, delaying each of your requests by 1.5 seconds would limit your hourly request to 2,400.

3.2 Method to Retrieve Reporting Periods

This method retrieves a list of all reporting period end dates available for the Call data series.

3.2.1 Web Service API URL

The REST Web Service URLs is:

<https://ffieccdr.azure-api.us/public/RetrieveReportingPeriods>

3.2.2 Required Headers

| Header | Description | Sample Value |
|----------------|--|---------------------------------|
| UserID | Username | "PWSUser101" |
| Authentication | User's security token with "Bearer " preceding it. | "Bearer eyJhbGciOiJub251Iiw " " |
| dataSeries | Data series name ("Call") | "Call" |

3.2.3 Method Formatting

```
ContentType = "application/json";  
Method = "GET";  
Header("UserID", "<username>");  
Header("Authentication", "Bearer " + "<security token>");  
Header("dataSeries", "Call");
```

3.2.4 Response JSON Content

This section contains the data in the JSON content of RetrieveReportingPeriods response.

| Key | Description | Data Type | Sample Value |
|------------------|--|---|--------------|
| ReportingPeriods | A list of reporting period end dates for the Call data series. | An array of date strings in the format "MM/DD/YYYY" | "12/31/2007" |

3.2.5 JSON Sample

```
[  
  "12/31/2002",  
  "03/31/2003",
```

"06/30/2003",

"09/30/2003",

"12/31/2003"

]

3.3 Method to Retrieve Panel of Reporters

This method retrieves information for the financial institutions in the Panel of Reporters (POR) expected to file for a given Call reporting period.

3.3.1 Web Service API URL

The REST Web Service URL is:

<https://ffieccdr.azure-api.us/public/RetrievePanelOfReporters>

3.3.2 Required Headers

| Header | Description | Sample Value |
|------------------------|---|-----------------------------------|
| UserID | Username | "PWSUser101" |
| Authentication | User's security token with "Bearer " preceding it. | "Bearer eyJhbGciOiJub251Iiwia " " |
| dataSeries | Data series name ("Call") | "Call" |
| reportingPeriodEndDate | Date string of the reporting period end date (MM/DD/YYYY) | "03/31/2025" |

3.3.3 Method Formatting

```
ContentType = "application/json";  
Method = "GET";  
Header("UserID", "<username>");  
Header("Authentication", "Bearer " + "<security token>");  
Header("dataSeries", "Call");  
Header("reportingPeriodEndDate", "<date string>");
```

3.3.4 Response JSON Content

This section contains the data in the JSON content of RetrievePanelOfReporters response.

| Key | Description | Sample Value |
|----------------|-------------|--------------|
| ID_RSSD | Int | 724904 |
| FDICCertNumber | Int | 27417 |
| OCCChartNumber | Int | 712504 |

| | | |
|----------------------------|---------|---------------------|
| OTSDockNumber | Int | 12504 |
| PrimaryABARoutNumber | Int | 211574862 |
| Name | String | "SHOREHAM BANK" |
| State | String | "RI" |
| City | String | "WARWICK" |
| Address | String | "ONE SHOREHAM WAY " |
| ZIP | Int | 02886 |
| FilingType | String | "051" |
| HasFiledForReportingPeriod | Boolean | True |

3.3.5 JSON Sample

```
[{
  "ID_RSSD": 724904,
  "FDICCertNumber": 27417,
  "OCCChartNumber": 712504,
  "OTSDockNumber": 12504,
  "PrimaryABARoutNumber": 211574862,
  "Name": "SHOREHAM BANK",
  "State": "RI",
  "City": "WARWICK",
  "Address": "ONE SHOREHAM WAY",
  "ZIP": 02886,
  "FilingType": 051,
  "HasFiledForReportingPeriod": True
},
{
  "ID_RSSD": 876700,
  "FDICCertNumber": 17764,
  "OCCChartNumber": 0,
  "OTSDockNumber": 0,
  "PrimaryABARoutNumber": 11500913,
  "Name": "CENTREVILLE BANK",
  "State": "RI",
  "City": "WEST WARWICK",
```

```
"Address": "1218 MAIN STR",  
"ZIP": 02893,  
"FilingType": 041,  
"HasFiledForReportingPeriod": False  
}]
```

3.4 Method to Retrieve Filers Since Date

This method retrieves a list of ID RSSDs for financial institutions that have filed for the given reporting period after the provided lastUpdateDateTime and whose new filings are available for public distribution.

3.4.1 Web Service API URL

The REST Web Service URLs is:

<https://ffieccdr.azure-api.us/public/RetrieveFilersSinceDate>

3.4.2 Required Headers

| Header | Description | Sample Value |
|------------------------|---|---|
| UserID | Username | "PWSUser101" |
| Authentication | User's security token with "Bearer " preceding it. | "Bearer eyJhbGciOiJub25lIiwia |
| dataSeries | Data series name ("Call") | "Call" |
| reportingPeriodEndDate | Date string of the reporting period end date (MM/DD/YYYY) | "03/31/2025" |
| lastUpdateDateTime | Date (and optional time) string for when the reports were last filed. Set this value to the last time you ran the method to retrieve only those institutions that have filed a newer report. | "04/15/2025" Or "2025-04-15 21:00:00.000" Or "04/15/2025 9:00 PM" |

3.4.3 Method Formatting

```
ContentType = "application/json";  
Method = "GET";  
Header("UserID", "<username>");  
Header("Authentication", "Bearer " + "<security token>");  
Header("dataSeries", "Call");  
Header("reportingPeriodEndDate", "<date string>");
```

```
Header("lastUpdateDateTime", "<date string>");
```

3.4.4 Response JSON Content

This section contains the data in the JSON content of RetrieveFilersSinceDate response.

| Key | Description | Data Type | Sample Value |
|----------|--|--|--------------|
| ID_RSSDs | A list of ID RSSDs that have filed for the reporting period since the lastUpdateDateTime | An array of ints representing ID RSSDs | 480228 |

3.4.5 JSON Sample

```
[  
  1474309,  
  540739,  
  91086,  
  75309  
]
```

3.5 Method to Retrieve Filers Submission Date Time

This method retrieves the ID RSSDs and submission date and time of the reporters who have filed after the provided lastUpdateDateTime and whose new filings are available for public distribution.

3.5.1 Web Service API URL

The REST Web Service URL is:

<https://ffiecldr.azure-api.us/public/RetrieveFilersSubmissionDateTime>

3.5.2 Required Headers

| Header | Description | Sample Value |
|------------------------|--|--|
| UserID | Username | "PWSUser101" |
| Authentication | User's security token with "Bearer " preceding it. | "Bearer eyJhbGciOiJub251Iiwia " " |
| dataSeries | Data series name ("Call") | "Call" |
| reportingPeriodEndDate | Date string of the reporting period end date (MM/DD/YYYY) | "03/31/2025" |
| lastUpdateDateTime | Date (and optional time) string for when the reports were last filed. (MM/DD/YYYY) Set this value to the last time you ran the method to retrieve only those institutions that have filed a newer report. | "04/15/2025" Or "04/15/2025 9:00 PM" |

3.5.3 Method Formatting

```
ContentType = "application/json";  
Method = "GET";  
Header("UserID", "<username>");  
Header("Authentication", "Bearer " + "<security token>");  
Header("dataSeries", "Call");  
Header("reportingPeriodEndDate", "<date string>");  
Header("lastUpdateDateTime", "<date string>");
```


3.5.4 Response JSON Content

This section contains the data in the JSON content of RetrieveFilersSubmissionDateTime response.

| Key | Description | Data Type | Sample Value |
|----------|--|----------------------|-----------------------|
| ID_RSSD | ID RSSD of the financial institution. | Int | 723158 |
| DateTime | Date and time that the financial institution filed the report. | Date and time string | "7/1/2025 6:17:33 PM" |

3.5.5 JSON Sample

```
[{
  "ID_RSSD": 723158,
  "DateTime": "7/1/2025 6:17:33 PM"
},
{
  "ID_RSSD": 807432,
  "DateTime": "7/9/2025 11:42:45 AM"
}]
```

3.6 Method to Retrieve Facsimile

This method retrieves a byte array stream of the requested facsimile file. The client must de-serialize the stream into a file in its local file system. SDF text files can be viewed and modified using spreadsheet or database software (e.g., Excel, Access) or with a text editor (e.g., NotePad). XBRL files require an XBRL editor. A taxonomy may have to be downloaded after the XBRL files have been downloaded for a better understanding of the file. The taxonomy may be accessed through the PDD web site.

3.6.1 Web Service API URL

The REST Web Service URL is:

Production Environment URL:

<https://ffieccdr.azure-api.us/public/RetrieveFacsimile>

3.6.2 Required Headers

| Header | Description | Sample Value |
|------------------------|--|-----------------------------------|
| UserID | Username | "PWSUser101" |
| Authentication | User's security token with "Bearer " preceding it. | "Bearer eyJhbGciOiJub251Iiwia " " |
| dataSeries | Data series name ("Call") | "Call" |
| reportingPeriodEndDate | Date string of the reporting period end date (MM/DD/YYYY) | "03/31/2025" |
| fiIdType | The type of identifier being provided: "ID_RSSD" "FDICCertNumber" "OCCChartNumber" "OTSDockNumber" | "ID_RSSD" |
| fiId | The financial institution's identifier. | "480228" |
| facsimileFormat | The report format to retrieve: "PDF" "XBRL" "SDF" | "XBRL" |

3.6.3 Method Formatting

```
ContentType = "application/json";
Method = "GET";
Header("UserID", "<username>");
Header("Authentication", "Bearer " + "<security token>");
Header("dataSeries", "Call");
Header("reportingPeriodEndDate", "<date string>");
Header("fiIdType", "<ID type>");
Header("fiId", "<ID>");
Header("facsimileFormat", "<report format>");
```

3.6.4 Response JSON Content

This section contains the data in the JSON content of RetrieveFacsimile response.

| Key | Description |
|---------------|--|
| FacsimileFile | A byte stream array representation of the file |

3.6.5 JSON Sample

```
[
  <byte stream>
]
```

3.7 Method to Retrieve UBPR Reporting Periods

This method retrieves a list of all reporting period end dates available for the UBPR data series.

3.7.1 Web Service API URL

The REST Web Service URLs is:

<https://ffieccdr.azure-api.us/public/RetrieveUBPRReportingPeriods>

3.7.2 Required Headers

| Header | Description | Sample Value |
|----------------|--|-------------------------------|
| UserID | Username | "PWSUser101" |
| Authentication | User's security token with "Bearer " preceding it. | "Bearer eyJhbGciOiJub25lIiwia |

3.7.3 Method Formatting

```
ContentType = "application/json";  
Method = "GET";  
Header("UserID", "<username>");  
Header("Authentication", "Bearer " + "<security token>");
```

3.7.4 Response JSON Content

This section contains the data in the JSON content of RetrieveUBPRReportingPeriods response.

| Key | Description | Data Type | Sample Value |
|------------------|--|---|--------------|
| ReportingPeriods | A list of reporting period end dates for the UBPR data series. | An array of date strings in the format "MM/DD/YYYY" | "12/31/2007" |

3.7.5 JSON Sample

```
[  
  "12/31/2002",  
  "03/31/2003",  
  "06/30/2003",
```

"09/30/2003",

"12/31/2003"

]

3.8 Method to Retrieve UBPR XBRL Facsimile

Call to retrieve a byte array stream of the requested XBRL instance document. The client must de-serialize the stream into a file in its local file system. XBRL files require an XBRL editor. A taxonomy may have to be downloaded after the XBRL files have been downloaded for a better understanding of the file. The taxonomy may be accessed through the PDD web site.

3.8.1 Web Service API URL

The REST Web Service URL is:

<https://ffieccdr.azure-api.us/public/RetrieveUBPRXBRLFacsimile>

3.8.2 Required Headers

| Header | Description | Sample Value |
|------------------------|--|--------------------------------|
| UserID | Username | "PWSUser101" |
| Authentication | User's security token with "Bearer " preceding it. | "Bearer eyJhbGciOiJub251liwi " |
| reportingPeriodEndDate | Date string of the reporting period end date (MM/DD/YYYY) | "03/31/2025" |
| fiIdType | The type of identifier being provided: "ID_RSSD" "FDICCertNumber" "OCCChartNumber" "OTSDockNumber" | "ID_RSSD" |
| fiId | The financial institution's identifier. | "480228" |

3.8.3 Method Formatting

```

ContentType = "application/json";
Method = "GET";
Header("UserID", "<username>");
Header("Authentication", "Bearer " + "<security token>");
Header("reportingPeriodEndDate", "<date string>");
Header("fiIdType", "<ID type>");
Header("fiId", "<ID>");

```

3.8.4 Response JSON Content

This section contains the data in the JSON content of RetrieveUBPRXBRLFacsimile response.

| Key | Description |
|----------|--|
| XBRLFile | A byte stream array representation of the file |

3.8.5 JSON Sample

```
[  
  <byte stream>  
]
```

4 REST API Error Status Codes

This section describes a list of error status code that may be returned when calling one of the Rest APIs.

| HttpStatusCode | Error Description | REST API JSON Response Body |
|----------------|---------------------|--|
| 400 | Bad Request | {StatusCode:400, Message: "Invalid Reporting Period End Date specified in request."} |
| 400 | Bad Request | {StatusCode:400, Message: "The requested facsimile not found or unavailable."} |
| 400 | Bad Request | {StatusCode:400, Message: "Invalid FI ID Type specified in request."} |
| 400 | Bad Request | {StatusCode:400, Message: "Security Token is invalid."} |
| 400 | Bad Request | {StatusCode:400, Message: "Security Token is expired."} |
| 401 | Unauthorized | {StatusCode: 401, Message: "Missing client certificate thumbprint or Bearer token"} |
| 401 | Unauthorized | {StatusCode: 401, Message: "Invalid JWT token"} |
| 403 | Forbidden | {StatusCode: 403, Message: " Out of call volume quota. Quota will be replenished in <time until they can get back data>."} |
| 500 | InternalServerError | {StatusCode: 500, Message: "Error Code 5000: Database Error "} |
| 500 | InternalServerError | {StatusCode: 500, Message: "Error Code 5001: " + "Missing Header" or "Invalid <header name>"} |
| 500 | InternalServerError | {StatusCode: 500, Message: "Error Code 5003: Access Denied"} |
| 500 | InternalServerError | {StatusCode: 500, Message: "Error Code 5005: Unexpected Error."} |
| 500 | InternalServerError | {StatusCode: 500, Message: "An error has occurred"} |
| 204 | InternalServerError | {StatusCode: 204, Message: "Error Code 204: " + "Facsimile not found or unavailable." or "Request processed but content not found. " |