Automatic Billing Access: API Technical Spec

Table of Contents

[1. Interface Details: 2](#_Toc135143333)

[2. Status codes 2](#_Toc135143334)

[3. GetUsageList Call Details 3](#_Toc135143335)

[4. GetUsageByMonth Call Details 5](#_Toc135143336)

[5. GetPaginatedUsageByMonth Call Details 6](#_Toc135143337)

[6. GetPaginatedV3UsageByMonth Call Details 7](#_Toc135143338)

[7. Client sample code 9](#_Toc135143339)

[a. Source code: 9](#_Toc135143340)

[b. Javascript for downloading report 13](#_Toc135143341)

# Interface Details:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Uri** | **Comment** | **Tech Design** |
| GetUsageList | GET /rest/{enrollment}/usage-reports | Get the list of months when usage reports are available | Usage Restful API |
| GetUsageByMonth | GET /rest/{enrollment}/usage-report?month={month}&type={type}&fmt={format} | Get the usage report for the specified month, report type and format. | Usage Restful API |
| GetPaginatedUsageByMonth | rest/{enrollment}//usage-report/paginated?month={month}  &fmt={format}&pageindex={pageindex} | Get page by page usage report for the specified month and format. This end point is only for **Detail** usage report. | Usage Restful API |
| GetPaginatedUsageByMonthV3 | rest/{enrollment}//usage-report/paginatedV3?month={month}  &fmt={format}&pageindex={pageindex} | Get page by page usage report for the specified month. This end point is only for **Detail** usage report and provides data in only JSON format. This API supports data from April 2023 onwards. | Usage Restful API |

# Status codes

|  |  |  |
| --- | --- | --- |
| **description** | **code** | **message** |
| No error | 200 | OK |
| Version is missing | 400 | Version expected |
| JWT is invalid, format wrong | 401 | Unauthorized |
| JWT is expired | 401 | Unauthorized |
| JWT is revoked | 401 | Unauthorized |
| Report file not available | 404 | Report not available |
| Enrollment number not found | 404 | Enrollment number not found |
| Page index not found. | 400 | Page not found for page index {page index} |

# GetUsageList Call Details

**Description**: Get the list of month when usage reports are available.

**Request:**

GET /rest/{enrollment}/usage-reports

enrollment: the enrollment number

Header

api-version: Specifies the version of the API requested. (format: yyyy-mm-dd)

Authorization: bearer {access key}

**Response:**

Status code: See status code in the All page.

Status Message: See status message in the All page

Header

api-version: Specifies the version of the API requested. (format: yyyy-mm-dd). Note: this version number is reserved for future extension. By default, add 2014-09-02

body

**JSON**:

|  |
| --- |
| JSON definition |
| {  object\_type,  contract\_version,  [  {  Month,  LinkToDownloadSummaryReport,  LinkToDownloadDetailReport, LinkToDownloadStoreChargeReport, LinkToDownloadPriceSheetReport  },  {  Month,  LinkToDownloadSummaryReport,  LinkToDownloadDetailReport, LinkToDownloadStoreChargeReport, LinkToDownloadPriceSheetReport  }  ]  } |
| Sample JSON |
| {  "AvailableMonths": [  {  "Month": "2015-08",  "LinkToDownloadSummaryReport": "rest/8283365/usage-report?month=2015-08&type=summary&fmt=csv",  "LinkToDownloadDetailReport": "rest/8283365/usage-report?month=2015-08&type=detail&fmt=csv",  "LinkToDownloadStoreChargeReport": "rest/8283365/usage-report?month=2015-08&type=storecharge&fmt=csv",  "LinkToDownloadPriceSheetReport": "rest/8283365/usage-report?month=2015-08&type=pricesheet&fmt=csv"  },  {  "Month": "2015-07",  "LinkToDownloadSummaryReport": "rest/8283365/usage-report?month=2015-07&type=summary&fmt=csv",  "LinkToDownloadDetailReport": "rest/8283365/usage-report?month=2015-07&type=detail&fmt=csv",  "LinkToDownloadStoreChargeReport": "rest/8283365/usage-report?month=2015-07&type=storecharge&fmt=csv",  "LinkToDownloadPriceSheetReport": "rest/8283365/usage-report?month=2015-07&type=pricesheet&fmt=csv"  }  ],  "ContractVersion": "1.0",  "ObjectType": "Usage"  } |

**Response object view**

{

AvailableMonths: Array of

{

ObjectType: ApiResourceObjectType

Contract\_Version:ApiVersion

Month: string,

LinkToDownloadSummaryReport: string

LinkToDownloadDetailReport: string

LinkToDownloadStoreChargeReport: string

LinkToDownloadPriceSheetReport: string

}

}

# GetUsageByMonth Call Details

**Description**: Get the usage report for the specified month and report type.

.

**Request:**

GET /rest/{enrollment}/usage-report?month={month}&type={type}&fmt={format}

Enrollment: the enrollment number

Month -- the month of the report. Should be in the format of yyyy-MM. if not specified, default to current month.

Type -- the type of the report. Should be Summary / Detail / StoreCharge / PriceSheet. If not specified, default to Summary.

fmt -- the format of the report. Should be CSV or JSON. If not specified, default to CSV.

Header

api-version: Specifies the version of the API requested. (format: yyyy-mm-dd). Note: this version number is reserved for future extension. By default, add 2014-09-02

Authorization: bearer {Access key}

**Response:**

Status code: See status code in the All page.

Status Message: See status message in the All page

Header

api-version: Specifies the version of the API requested. (format: yyyy-mm-dd)

ETag: a version number for the report. When it’s different from the client version, the server version is changed from the last time the api is called

LastModified: the last modified time of the report.

Content-Type: “text/csv” or “application/json”

Body

Report file binary stream if fmt parameter is CSV

JSON if fmt parameter is JSON

# GetPaginatedUsageByMonth Call Details

**Description**: Get the usage report for the specified month and report type. This call only supported for detail type report.

**Determining Page Size:** When the first request is being served, application is adding the following response headers:

1. TotalPages: This header value will specify that how many pages are available for requested report.
2. CurrentPage: This will help to identify that which page is being served currently.

Page index will always 1 less than actual page size. To request for page 1 set page index to 0, for page 2 set pageindex to 1 and so on till the last page.

**Request:**

**URL :**

GET rest/{enrollment}/usage- report/paginated?month={month}&fmt={format}&pageindex={pageindex}

**Query Parameters:**

* + Enrollment: the enrollment number for which the report is requested.
  + Month: the month of the report. Should be in the format of yyyy-MM. if not specified, default to current month.
  + fmt: the format of the report. Should be CSV or JSON. If not specified, default to CSV.
  + pageindex: the page of the report is being requested. If not specified, defaults to zero.

Headers:

* api-version: Specifies the version of the API requested. (format: yyyy-mm-dd). Note: this version number is reserved for future extension. By default, add 2014-09-02
* Authorization: bearer {Access key}

**Response:**

Status code: See status code in the All page.

Status Message: See status message in the All page.

Header

* api-version: Specifies the version of the API requested. (format: yyyy-mm-dd)
* ETag: a version number for the report. When it’s different from the client version, the server version is changed from the last time the api is called.
* LastModified: the last modified time of the report.
* Content-Type: “text/csv” or “application/json”
* TotalPages: Total pages available in report.
* CurrentPage: Current page of the report.

Body

Report file binary stream if fmt parameter is CSV

JSON if fmt parameter is JSON

# GetPaginatedV3UsageByMonth Call Details

**Description**: Get the usage report for the specified month and report type. This call only supported for detail type report and only return JSON response. This API will return data only from April 2023. Any request before that will return page not found.

**Determining Page Size:** When the first request is being served, application is adding the following response headers:

1. TotalPages: This header value will specify that how many pages are available for requested report.
2. CurrentPage: This will help to identify that which page is being served currently.

Page index will always 1 less than actual page size. To request for page 1 set page index to 0, for page 2 set pageindex to 1 and so on till the last page.

NOTE: If number of pages is 10 but if any of pages between them does not have data does not mean the next page will not return data.

**Request:**

**URL :**

GET rest/{enrollment}/usage-     report/paginatedV3?month={month}&pageindex={pageindex}

**Query Parameters:**

* Enrollment: the enrollment number for which the report is requested.
* Month: the month of the report. Should be in the format of yyyy-MM. if not specified, default to current month.
* pageindex: the page of the report is being requested. If not specified, defaults to zero.

Headers:

* api-version: Specifies the version of the API requested. (format: yyyy-mm-dd). Note: this  version number is reserved for future extension. By default, add 2014-09-02

* Authorization: bearer {Access key}

**Response:**

Status code: See status code in the All page.

Status Message: See status message in the All page.

Header

* api-version: Specifies the version of the API requested. (format: yyyy-mm-dd)
* ETag: a version number for the report. When it’s different from the client version, the server version is changed from the last time the api is called.
* LastModified: the last modified time of the report.
* Content-Type: “application/json”
* TotalPages: Total pages available in report.
* CurrentPage: Current page of the report.

Body

JSON Format

V3 API call from Tool:

A screenshot of a computer

Description automatically generated with medium confidence

# Client sample code

## Source code:

[https://waepapp.blob.core.chinacloudapi.cn/api-docutment/en/UsageDownloadRestfulSampleClient.zip](https://waepapp.blob.core.chinacloudapi.cn/api-docutment/en/UsageDownloadRestfulSampleClient.zip%20)

Here is client code sample for how to call the APIs. The response is the json from the service. The public methods are the entry points for the API calls. They construct web request by calling GetResponse/ GetPaginatedResponseV2 method, which constructs the header by calling Addheaders method.

string downloadUsageByMonthUrlTemplate = "https://ea.azure.cn/rest/{0}/usage-report?month={1}&type={2}&fmt={3}";

string getUsageListUrlTemplate = "https://ea.azure.cn/rest/{0}/usage-reports";

string downloadPaginatedUsageByMonthUrlTemplate=” https://ea.azure.cn/rest/{0}/usage-report/paginated?month={1}&fmt={2}&pageindex={3}”

string downloadPaginatedV3UsageByMonthUrlTemplate=” https://ea.azure.cn/rest/{0}/usage-report/paginatedV3?month={1}&fmt={2}&pageindex={3}”

public string GetEnrollmentUsageByMonth(DateTime month, UsageReportType type, string fmt, string enrollmentNumber, string jwt)

{

string url = string.Format(downloadUsageByMonthUrlTemplate, enrollmentNumber, month, type, fmt);

string response = GetResponse(url, jwt);

return response;

}

public string GetEnrollmentPaginatedUsageByMonth(DateTime month, string enrollmentNumber, string jwt, string format,int Pageindex, bool throwWebException = false)

{

string url = string.Format(downloadPaginatedUsageByMonthUrlTemplate, enrollmentNumber, month, format,Pageindex);

string response = GetResponse(url, jwt, throwWebException);

return response;

}

public async Task<Tuple<JObject, string>> GetEnrollmentPaginatedV3UsageByMonth1(DateTime month, string enrollmentNumber, string jwt, int Pageindex, bool throwWebException = false)

{

string monthString = Convert.ToDateTime(month).Year + "-" + Convert.ToDateTime(month).Month;

string url = string.Format(downloadPaginatedV3UsageByMonthUrlTemplate, enrollmentNumber, monthString, Pageindex);

var response = await GetPaginatedResponseV2(url, jwt, throwWebException);

return response;

}

public string GetEnrollmentUsageList(string enrollmentNumber, string jwt)

{

string url = string.Format(getUsageListUrlTemplate, enrollmentNumber);

string response = GetResponse(url, jwt);

return response;

}

private string GetResponse(string url, string jwt)

{

WebRequest request = WebRequest.Create(url);

if (!string.IsNullOrEmpty(jwt))

{

AddHeaders(request, jwt);

}

HttpWebResponse response = (HttpWebResponse)request.GetResponse();

var contentType = response.Headers["Content-Type"];

StreamReader reader = new StreamReader(response.GetResponseStream());

string s = reader.ReadToEnd();

return s;

}

public async Task<Tuple<JObject,string>> GetPaginatedResponseV2(string url, string jwt, bool throwException)

{

WebRequest request = WebRequest.Create(url);

if (!string.IsNullOrEmpty(jwt))

{

AddHeaders(request, jwt);

}

HttpWebResponse response = null;

try

{

response = (HttpWebResponse)await request.GetResponseAsync();

}

catch (WebException ex)

{

if (throwException)

{

throw;

}

response = (HttpWebResponse)ex.Response;

}

using (StreamReader reader = new StreamReader(response.GetResponseStream()))

{

var contentType = response.Headers["Content-Type"];

string jsonData = reader.ReadToEndAsync().GetAwaiter().GetResult();

var jsonResponse = JObject.Parse(jsonData);

string s = (int)response.StatusCode + "\t" + response.StatusDescription + "\r\n"

+ response.Headers + "\r\n"

+ jsonData;

return new Tuple<JObject,string>(jsonResponse,s);

}

}

private void AddHeaders(WebRequest request, string jwt)

{

string bearerTokenHeader = "bearer "+jwt;

request.Headers.Add("authorization", bearerTokenHeader);//looks like authorization: bearer {YourAPIKey}

request.Headers.Add("api-version", "2014-09-02");

}

Now you’ve got the json response and you can deserialize it into an object. Here is a sample object you may have for monthly usage report.

And here is sample code for usage list.

public class UsageReportListApiResponse

{

[DataMember]

public UsageMonth[] AvailableMonths { get; set; }

}

[DataContract]

public class UsageMonth

{

[DataMember]

public DateTime Month {

get;set;

}

[DataMember]

public string LinkToDownloadSummaryReport

{

Get;set;

}

[DataMember]

public string LinkToDownloadDetailReport

{

Get;set;

}

}

[DataMember]

public string LinkToDownloadStoreChargeReport

{

Get;set;

}

}

[DataMember]

public string LinkToDownloadPriceSheetReport

{

Get;set;

}

}

## Javascript for downloading report

function buttonclick() {

var url = 'https://ea.azure.cn/{EnrollmentNumber}/usage-report?month=2015-01&type=detail&fmt=csv';

var authHeader = 'bearer {YourAPIKey};

var req = new XMLHttpRequest();

req.open('GET', url, false);

req.setRequestHeader('authorization', authHeader);

req.overrideMimeType('application/octet-stream');

req.send(null);

var response = req.response;

//do things to the response.

}

Note：Please replace { **EnrollmentNumber** } with your actual enrollment and change **authHeader** with the access key generated under primary key highlighted below.

Graphical user interface, application

Description automatically generated