In the Agora Extension Marketplace, vendors create extensions that implement specific functionality. Customers integrate these extensions into their app. Agora is the central point between vendor and customer. Agora supplies information about each customer to the vendor. The vendor supplies Agora with information how much each customer has used each extension and how much they have to pay for it. This Usage and Billing information is exchanged between vendor and Agora using REST APIs.

In order to release an extension, each vendor must implement the following REST APIs so Agora can securely get the usage and billing information of a specified customer.

When you implement these APIs, ensure that your API implementation meets the following requirements:

* Handles at least 100 queries per second.
* Follows standard HTTP status codes for error information and handling policy.

After each request, Agora waits 500 milliseconds for the response and automatically repeats the request for three times when timeouts occur.

## usage

After a customer adds an extension in their Agora projects, Agora calls this API every day to request the usage. You should return the usage to Agora in the response. Agora adds up the total amount of the usage, rounds it up, and updates the usage information on Console.

**Basic information**

| **Basic information** | **Description** |
| --- | --- |
| Method | GET |
| Request URL | | https://[host]/usage?fromTs=[ts]&toTs=[ts]&pageNum=[pageNum] | | --- | |

**Request parameter**

| **Parameter** | **Mandatory** | **Type** | **Data length** | **Description** |
| --- | --- | --- | --- | --- |
| fromTs | Yes | Timestamp | 10 | The start time for the usage query. |
| toTs | Yes | Timestamp | 10 | The end time for the usage query. |
| pageNum | Yes | Int | N/A | The page number of the usage list.  You need to implement pagination to the usage list and return the total number of pages in the totalSize field in the response.  Agora always sets this parameter as one at the first request every day and repeats requesting until hasNext in the response returns false. |
| limit | No | Int | N/A | The number of data entries in the response. Ensure that you set a default value to this parameter. |
| apiKey | Yes | String | 32 | The API key, used for authentication between you and Agora. When you register as a vendor on Agora Console, Agora generates an API key as the identifier. |
| signature | Yes | String | N/A | The signature generated by the signature algorithm. You need to deploy the algorithm to verify that the request is sent by Agora. |

**Request sample**

| {  fromTs: "1619913600",  toTs: "1619917200",  pageNum: 1,  apiKey: "pzD5XinRSlmA64tZx81fL92YcBsJK0gd",  signature: "Q7mtNW8oGxRk5MTPuY6E9gfy0dVre4b2hlZwSaF1qILjJcAXHKsvz3BnDiOUCpsB8WehBlNwEze1MVEFCanebjffAZkqDtcAGgcUidDiIwmgJUWFzHbcCUmguXbyDwxM" } |
| --- |

**Response parameter**

| **Parameter** | **Type** | **Description** |
| --- | --- | --- |
| status | Int | The status code. 0 means that the request succeeds. |
| statusReason | String | The reason for the status. |
| totalSize | String | The total number of the usage pages. |
| pageNum | Int | The page number of the usage list. This parameter should be the same with the pageNum field in the request. |
| hasNext | Boolean | Whether the usage page list has the next page:   * true: The usage page list has the next page. The request repeats. * false: The usage page list does not have the next page. The request stops. |
| data | Array | The usage data, which contains the following information:   * projectId: The project ID. * amount: The usage amount. The data format is BigDecimal. The unit of measurement is set with the configuration with Agora. To change the unit of measurement, contact your account manager. * description: The detailed description of the usage amount. |

**Response sample**

| **{  status:0,  statusReason:"xxxxx",  data:{  totalSize:"1000",  pageNum: 1,  hasNext: true,  data :[  {  projectId: xxx  amount: xxx  description: xxx  },  {  projectId: xxx  amount: xxx  description: xxx  }]  } }** |
| --- |

## bill

After a customer adds an extension in their Agora projects, Agora calls this API at the end of each month to request the billing information. You should return this information to Agora in the response. After receiving the response, Agora rounds the amount up and displays the billing information on Console.

**Basic information**

| **Basic information** | **Description** |
| --- | --- |
| Method | GET |
| Request URL | | https://[host]/bill?fromTs=[ts]&toTs=[ts]&pageNum=[pageNum] | | --- | |

**Request parameter**

| **Parameter** | **Mandatory** | **Type** | **Data length** | **Description** |
| --- | --- | --- | --- | --- |
| fromTs | Yes | Timestamp | 10 | The start point (UTC timestamp) of the time range to query the billing information. |
| toTs | Yes | Timestamp | 10 | The end point (UTC timestamp) of the time range to query the billing information. |
| pageNum | Yes | Int | N/A | The page number of the billing list.  You need to implement pagination to the billing list and return the total number of pages in the totalSize field in the response.  Agora always sets this parameter as one at the first request every month and repeats requesting until hasNext in the response returns false. |
| limit | No | Int | N/A | The number of data entries in the response. Ensure that you set a default value to this parameter. |
| apiKey | Yes | String | 32 | The API key, used for authentication between you and Agora. When you register as a vendor on Agora Console, Agora generates an API key as the identifier. |
| signature | Yes | String | N/A | The signature generated by the signature algorithm. You need to deploy the algorithm to verify that the request is sent by Agora. |

**Request sample**

| **{  fromTs: "1619913600",  toTs: "1619917200",  pageNum: "1",  apiKey: "pzD5XinRSlmA64tZx81fL92YcBsJK0gd",  signature: "Q7mtNW8oGxRk5MTPuY6E9gfy0dVre4b2hlZwSaF1qILjJcAXHKsvz3BnDiOUCpsB8WehBlNwEze1MVEFCanebjffAZkqDtcAGgcUidDiIwmgJUWFzHbcCUmguXbyDwxM" }** |
| --- |

**Response parameter**

| **Parameter** | **Type** | **Description** |
| --- | --- | --- |
| status | Int | The status code. 0 means that the request succeeds. |
| statusReason | String | The reason for the status. |
| totalSize | String | The total number of the billing pages. |
| pageNum | Int | The page number of the billing list. This parameter should be the same with the pageNum field in the request. |
| hasNext | Boolean | Whether the billing page list has the next page:   * true: The billing page list has the next page. The request repeats. * false: The billing page list does not have the next page. The request stops. |
| data | Array | The billing information data, which contains the following information:   * projectId: The project ID. * amount: The billing amount. The data format is BigDecimal. The unit of measurement is set with the configuration with Agora. To change the unit of measurement, contact your account manager. * description: The detailed description of the billing amount. |

**Response sample**

| {  status:0,  statusReason:"xxxxx",  data:{  totalSize:"1000",  pageNum: 1,  hasNext: true,  data :[{  projectId: xxx  amount: xxx  description: xxx  },  {  projectId: xxx  amount: xxx  description: xxx  }]  } } |
| --- |

## license

***Note:*** *This API only applies to vendors who charge customers with licenses.*

Retrieves the license information of a specified customer. For vendors that charge customers with licenses, Agora calls this API to query the expiration time for the license.

**Basic information**

| **Basic information** | **Description** |
| --- | --- |
| Method | GET |
| Request URL | | https://[host]/customers/[customerId]/license | | --- | |

**Path parameter**

| **Parameter** | **Description** |
| --- | --- |
| customerId | The user ID of the customer on Agora Console. |

**Request parameter**

| **Parameter** | **Mandatory** | **Type** | **Data length** | **Description** |
| --- | --- | --- | --- | --- |
| apiKey | Yes | String | 32 | The API key, used for authentication between you and Agora. When you register as a vendor on Agora Console, Agora generates an API key as the identifier. |
| signature | Yes | String | N/A | The signature generated by the signature algorithm. You need to deploy the algorithm to verify that the request is sent by Agora. |

**Request sample**

| {  apiKey: "pzD5XinRSlmA64tZx81fL92YcBsJK0gd",  signature: "Q7mtNW8oGxRk5MTPuY6E9gfy0dVre4b2hlZwSaF1qILjJcAXHKsvz3BnDiOUCpsB8WehBlNwEze1MVEFCanebjffAZkqDtcAGgcUidDiIwmgJUWFzHbcCUmguXbyDwxM" } |
| --- |

**Response parameter**

| **Parameter** | **Type** | **Description** |
| --- | --- | --- |
| expireDate | timestamp | The expiration time of the license. |
| residueCount | String | The remaining counts for the customer to use the license. |

**Response sample**

| {  status:0,  statusReason:"xxxxx",  data:{  expireDate:"xxxxxx",  residueCount:"xxxxxx"  } } |
| --- |