YALATECH cloud ESL tag standard interface protocol

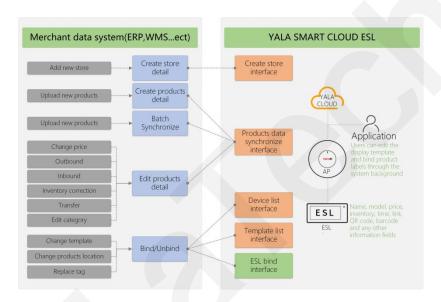
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1. Scope of application

- 1. This document is applicable to the connection between third parties and YalaTech ESL tag background management system.
- 2. The interface uses http way to connect.

2. System docking principle diagram



3. Merchant identity verification

1. describe:

For the connection between the third party and YalaTech background, YalaTech background will generate corresponding merchant information, bring the merchant code (merchantCode) and encrypted merchant key (Key) when docking the interface, and YalaTech background will verify and complete the docking

2. parameter:

| name | type | illustrate |
|--------------|--------|---|
| veryText | String | Generate a 32 -bit lowercase string through MD5 encryption. Encryption format: key+current date, if key=A62D538771cfE4d, the current date is 2020-04-05 then: veryText=MD5(A62D538771cfE4d2020-04-05).t oLower() |
| merchantCode | String | Merchant number, which can be obtained on the YalaTech cloud ESL tag management platform |

4, the status code summary table

| status value | illustrate | |
|--|-----------------------------------|--|
| 200 | The server request was successful | |
| 500 | server request error | |
| 502 md5 verification failed, check whe | | |

5. Interface definition

1. Create store interface

1) request address sg.yalabi.net/open/createSubMerchant

2) request header, header parameter

| name | type | illustrate |
|------------------------|--------|-------------------------------------|
| | | Generate a 32 -bit lowercase string |
| veryText | String | through MD5 encryption. |
| | | Encryption format: key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type String ap | | application/json |

| name | type | illustrate | whether required |
|-------------|---------------|-------------------------------|---------------------|
| name | String (4,32) | store name | Yes |
| userName | String(6,32) | store account | Yes |
| ema i I | String | email address | no |
| contactName | String | contact name | no |
| phone | String | contact number | no |
| cashNum | Number | Store cash register number | no |

4) response parameters

| name | type | illustrate | |
|-------------|--------|---|--|
| code | String | The http status code returned by the server, successfully returns 200 | |
| success | String | Whether it is successful, success is: | |
| errorMsg | String | The server returned an error message | |
| data | object | The data returned by the server will return the batch number if it is successful. The batch number of each access interface is different and unique. It is used to query whether there is a failure record according to the batch number. The validity period of the error message is seven sky | |
| data object | data | | |
| аррКеу | String | The key of the store needs to be saved by the other party, and then call the product, | |
| | | Device, binding and other interfaces, as MD5 encryption parameters | |
| code | String | The store number, which needs to be saved by the other party, and then call the product, Device, binding and other interfaces, as the unique ID of the store | |
| name | String | Store name, YalaTech cloud ESL tag platform | |
| userName | String | Store account, YalaTech cloud ESL tag | |
| email | String | Store contact email address | |
| contactName | String | Store Contact Name | |
| phone | String | Store contact number | |
| cashNum | String | Store cash register number | |

5) illustrate:

Note: A maximum of 10000 requests per day

6) Sample of request parameters

```
创建门店
{
    "name":"YalaTech",
    "userName":"yala9577",
    "email":"test@qq.com",
    "contactName":"Lin",
    "phone":"13760066666",
    "cashNum":"457854578"
}
```

7) Example of response parameters

```
Create a store successfully
    "detailError":null,
    "code": 200,
    "data": {
        "appKey":
        "6e37793D7046F32", "code":
        "SC5009",
        "name ": "Yala Store No. 1",
        "userName": "yala9577",
        "email": " test@qq.com ",
        "contactName": "Lin Cong",
        "accountName":null,
        "phone": "13760066666",
        "cashNum": null
   },
    "type":null,
    "success":true,
    "errorMsg":null
```

2. Commodity/Category New Editing Interface

1) request address sg.yalabi.net/open/saveOrGoods

2) request header

| name | type | illustrate |
|--|--------|-------------------------------------|
| | | Generate a 32 -bit lowercase string |
| veryText | String | through MD5 encryption. |
| | | Encryption format: key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode String Merchant ID/Store ID | | Merchant ID/Store ID |
| tuno | C+u:na | Interface type (1: add new |
| type | String | product/edit 2: add new category/ |
| | | edit) |
| content-type | String | application/json |

| name | type | illustrate | Is it require d? |
|-------------------------|--------|---|------------------|
| merchantGoodsId | String | Commodity unique identification (barcode is preferred, if there is no barcode, the merchant's | Yes |
| | | commodity is unique key) | |
| itemBarCode | String | bar code | no |
| i temName | String | product name | no |
| categoryName | String | Commodity category name | Yes |
| merchantGoodsCategoryId | String | Product Category ID | Yes |
| itemBaseUnit | String | sales unit | no |
| itemMarkerPrice | Number | market price | no |

| itemMembershipPrice | Number | member price | no |
|----------------------|----------|--------------------|----|
| itemNormalPrice | Number | retail price | no |
| itemPromotionalPrice | Number | Sale price | no |
| itemProductionPlace | String | place of origin | no |
| itemQrCode | String | QR code | no |
| itemRetentionPeriod | String | shelf life | no |
| manufacturing | Datatime | Production Date | no |
| manufactureTime | Datatime | Production time | no |
| specifications | String | Specification | no |
| stock | String | in stock | no |
| mixture | String | ingredients | no |
| storageCondition | String | Storage conditions | no |

| eatMethod | String | eating method | no |
|------------------|--------|-----------------------|----|
| goodsNo | String | Item No. | no |
| license | String | Production license | no |
| company | String | dealer | no |
| grade | String | grade | no |
| img | String | product picture | no |
| goodsCode | String | Product Number | no |
| promoteStartDate | String | Promotion start time | no |
| | | yyyy-MM-dd | |
| promoteEndDate | String | Promotion end time | no |
| | | yyyy-MM-dd | |
| reservedField1 | String | custom field 1 | no |
| reservedField2 | String | custom field 2 | no |
| reservedField3 | String | custom field 3 | no |
| reservedField4 | String | custom field 4 | no |
| reservedField5 | String | custom field 5 | no |
| reservedField6 | String | Custom Field 6 | no |
| reservedField7 | String | Custom Field 7 | no |
| reservedField8 | String | Custom Field 8 | no |
| reservedField9 | String | Custom Field 9 | no |
| reservedField10 | String | custom field 10 | no |

4) response parameter

| name | type | illustrate |
|----------|--------|--|
| code | String | The http status code returned by the server, successfully returns 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server will return the batch number if it is successful. The batch number of each access interface is different and unique. It is used to query whether there is a failure record according to the batch number. The validity period of the error message is seven days |

5) illustrate:

- The request parameter type is a json array
- ②The length of the json array cannot exceed 200 in a single push
- 3The maximum number of requests per day is 10,000
- ④ When the request is successful, you can get the returned batch number in date, and you can use this batch number to check whether the batch operation has a failure record
- ⑤ When type is equal to 1, it means that the product is added /edited, and the background will read all the fields of the above request parameters; when type is 2, it means that the category is added /edited, and the background will only read the product category name (categoryName) of the above request parameters) and commodity category ID (merchantGoodsCategoryId) two fields (note: when TYPE=1, if the commodity quantity contains commodity category names and commodity category IDs that are not in the YalaTech system, the interface will create commodity categories and commodities at the same time)

6) Example request parameters

```
Product Add/Edit: type = 1

[{
    "merchantGoodsId": "2175213",
    "itemBarCode": "54311655",
```

```
"itemName": "Apple",
     "categoryName": "Fruit",
     "merchantGoodsCategoryId": "1",
     "itemBaseUnit": "jin",
     "itemMarkerPrice": "6",
     "itemMembershipPrice": "6",
     "itemNormalPrice": "6",
     "itemPromotionalPrice": "5",
     "itemProductionPlace": "China",
     "itemQrCode": " www.baidu.com ",
     "itemRetentionPeriod": "3",
     "manufacture": "2019-08-30T08:31:05.000Z",
     "manufactureTime": "2019-08-30T08:31:05.000Z",
     "specifications": "3",
     "stock": "10",
     "goodsCode": "1324320",
     "reservedField1": "Custom Field",
     "reservedField2": "Custom Field",
     "reservedField3": "Custom Field",
     "reservedField4": "Custom Field",
     "reservedField5": "Custom Field",
     "reservedField6": "Custom Field",
     "reservedField7": "Custom Field",
     "reservedField8": "Custom Field",
     "reservedField9": "Custom Field",
     "reservedField10": "Custom Field"
Category addition/editing: type = 2
    "categoryName": "Seafood",
     "merchantGoodsCategoryId": "2"
}]
```

7) Example response parameters

```
Product Add/Edit: type = 1
{
    "detailError": null,
    "code": 200,
    "data": "5251586757169548",
    "type": null,
    "success": true,
    "errorMsg": null
}
```

3. Device paging interface

1) request address sg.yalabi.net/open/devicePage

2) request header

| name | type | illustrate |
|--------------|--------|--------------------------------------|
| veryText | C+ : | Generate a 32-bit lowercase string |
| Verylext | String | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | whether required |
|-------------|--------|---|---------------------|
| currentPage | String | Current page, default is 1 | no |
| pageSize | String | The number of records displayed on each page, the default is 10 | no |
| deviceType | String | Device type (1=ESL tag, 2=base station, 3=AP+) | no |
| deviceCode | String | device ID | no |

4) response parameter

| name | type | illustrate |
|------------------|----------|----------------------------------|
| code | String | HTTP status code returned by the |
| Code | oti ilig | server, successfully returned |
| | | Back to 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error |
| | | message |
| data | object | The data returned by the server |
| data object data | | |
| id | String | Device primary key id |

| deviceCode | String | device ID |
|-----------------------|-------------|--|
| merchantId | String | Merchant primary key id |
| merchantCode | String | Merchant ID |
| merchantName | String | Business Name |
| station Beat | String | heartbeat time |
| type | String | Device type (1=ESL tag, 2=base station, 3=AP+) |
| deviceSkuShortName | String | Device model name (Chinese) |
| enDeviceSkuShortName | String | Device model name (English) |
| bindingId | String | Binding status (null means unbound) |
| templateId | String | The template id bound to the device |
| templateName | String | The name of the template bound to the device |
| power | Intege r | Device power |
| temperature | String | device temperature |
| state | Intege r | Device online status 1: online 2: offline |
| goodsCommon | Array | Items bundled with the device |
| goodsCommon object da | ata | |
| goodsSkuld | String | The product id bound by the template |
| goodsSkuName | String | Product name for template binding |
| goodsBarCode | String | Commodity barcode bound by template |
| goodsSkuCode | String | Template bound product sku barcode |
| templateCommonId | String | The template split screen id bound |
| | 1.3 | |

| | | to the template and the product |
|------------------|--------|--|
| spec | object | Device property (json string, device type type different attribute fields) |
| spec object data | | |
| priceTagModel | String | ESL tag size (type=1) |
| priceTagColour | String | ESL tag screen color (type=1) |
| priceTagRatio | String | ESL tag screen resolution (type=1) |
| priceTagSeries | String | ESL tag series (type=1) |
| priceTagLight | String | Whether to have a light (type=1) |
| priceTagWater | String | Whether it is waterproof (type=1) |
| stationModel | String | Base station model (type=2) |
| stationSeries | String | Base station series (type=2) |

5) Example request parameters

```
{
    " currentPage ":"1",
    " pageSize ":"10",
    " deviceType ":"1"
}
```

6) Example response parameters

```
"detailError": null,
   "code": 200,
   "data": {
       "total": 1,
       "pages": 1,
       "pageNum": 1,
       "pageSize": 10,
       "list": [
          {
              "id": 5346,
              "deviceSkuld": 58,
              "deviceSkuShortName": "Simple Series ESL tag 1.54in-Black,
              White and Red", "enDeviceSkuShortName":
              "ColorfulSeries1.54in-BlackWhiteRed",
              " power ": 100,
              " temperature ": "36",
              " state ": 1,
              "spec":
"priceTagColour\":\"black and white red
\", \"priceTagRatio\":\"200*200px\", \"priceTagSeries\":\"Simple series
\",\"priceTagFirm\":\"YLBI\",\"priceTagWater\":\"\",\"APRemark\":\"\"}",
               "deviceCode": "DC100000",
              "softwareVer": "3.1",
               "type": 1,
               "merchantId": 525,
              "merchantCode": "MC5024",
              "merchantName": "Docking test
              account", "bindingId": 5126,
              "district": "South China",
              "templateName": "2.13i standard template",
```

4. Device Binding Interface

1) request address sg.yalabi.net/open/labelBinding

2) request header

| name | type | illustrate |
|--------------|--------|--------------------------------------|
| veryText | String | Generate a 32-bit lowercase string |
| | | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

| name | type | illustrate | Is it necessar y fill |
|--------------|--------|------------------------|-----------------------|
| deviceItemId | String | ESL tag primary key id | Choose 1 between |
| deviceCode | String | ESL tag number | them |

| stationCode | String | base station number | no | |
|----------------------------------|--------|------------------------------------|-----------------|--|
| templateId | String | Template primary key id | Yes | |
| bindingTemplateGoods | array | Template product binding | | |
| bindingTemplateGoods object data | | | | |
| goodsSkuld | String | Product primary key id | Choose 1 | |
| merchantGoodsId | String | Product unique identifier | between them | |
| templateCommonId | String | template content primary key id | Yes | |

4) response parameters

| name | type | illustrate |
|----------|--------|--|
| code | String | The http status code returned by the server, successfully returns 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | String | The data returned by the server will return the batch number if it succeeds. The batch number of each access interface is different and |
| | | unique. It is used to query whether there is a failure record according to the batch number. The validity period of the error message seven days |

5) illustrate:

- 1. The request parameter type is a JSON array
- 2. The length of the JSON array should not exceed 200 pushes at a time
- 3. A maximum of 10000 requests per day
- 4. The batch number returned can be fetched on date when the request is successful. This batch number can be used to check whether the batch operation has failed record

6) Example request parameters

```
[{
    "deviceItemId": "5346",
    "templateId": "561",
    "bindingTemplateGoods":[
        {"goodsSkuId":"1806",
        "templateCommonId":"631"
     }
]
```

7) Example response parameters

```
{
    "detailError": null,
    "code": 200,
    "data": "5251586757164651",
    "type": null,
    "success": true,
    "errorMsg": null
}
```

5. API for getting error information

1) request address
 sg.yalabi.net/open/getErrorMessage

2) request header

| name | type | illustrate |
|--------------|--------|--|
| veryText | String | Generate a 32-bit lowercase string through MD5 encryption. |
| | | Encryption format : key+current date (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | multipart/form-data |

| name | type | illustrate | whether required |
|-------|---------|---|---------------------|
| type | Integer | Information type (1=commodity new edit, 2=product Class added edit, 3=device binding) | Yes |
| batch | String | batch number | Yes |

4) response parameters

| name | type | illustrate |
|----------|--------|---|
| code | String | The http status code returned by the server, successfully returns 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |

5) illustrate

①The success or failure of each piece of data in the batch operation will be recorded, and the batch of data can be obtained through the batch number. Each data object has a resultCode field, which is 200 for success and 500 for failure

6) Example request parameters

```
{
    "type":3,
    "batch":"551586333844150"
}
```

7) Response parameter example: device binding as an example

```
"detailError": null,
"code": 200,
"data": [
 {
   "deviceItemId": "5346",
   "templateId": "561",
   "bindingTemplateGoods":[
        {"goodsSkuId": "1806",
         "templateCommonId": "631"
        }
        ],
    "resultCode": "200"//successful data
 },
   "deviceItemId": "5347",
   "templateId": "562",
   "bindingTemplateGoods":[
       {"goodsSkuld":"1807",
        "templateCommonId": "632"
   "resultCode": "500"//failure data
   ],
"type": null,
"success": true,
"errorMsg": null
```

6. Template pagination interface

1) request address sg.yalabi.net/open/templatePage

2) request header

| name | type | illustrate |
|--------------|--------|--------------------------------------|
| veryText | String | Generate a 32-bit lowercase string |
| verytext | String | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | wheth er requi red |
|-------------|--------|---|-----------------------------|
| currentPage | String | Current page, default is 1 | no |
| pageSize | String | The number of records displayed on each page, the default is 10 | no |
| name | String | template name | no |
| ratio | String | template resolution | no |
| temLang | String | Template language (1=Chinese, 2=English) | Yes |

4) response parameters

| name | type | illustrate |
|------------------|--------|--|
| code | String | HTTP status code returned by the server, successfully returned 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |
| data object data | | |
| id | Long | template id |

| name | String | template name | |
|-----------------------------|---------|--|--|
| spec | String | collection of template attributes | |
| merchantld | String | merchant id | |
| type | Integer | Template type (1=normal screen template, 2=broken code screen, 3=video screen) | |
| temLang | Integer | Template language (1=Chinese, 2=English) | |
| templateCommons | Array | A collection of template content objects | |
| templateCommons object data | | | |
| id | Long | template content object id | |
| templateId | Long | template id | |

5) Example request parameters

```
{
    "currentPage":"1",
    "pageSize":"10",
    "name":"4.2 template ",
    "ratio":"400*300px",
    "temLang":"1"
}
```

6) Example response parameters

```
"detailError": null,
    "code": 200,
    "data": {
        "total": 1,
        "pages": 1,
        "pageNum": 1,
        "pageSize": 10,
        "list": [
            {
                "id": 299,
                "name": "4.2 Template",
                "spec": "{\"color\":\"black and white red
\", \"ratio\":\"400*300px\", \"direction\":\"horizontal\", \"style\":
                8\"}", "merchantId": 525,
                "type": 1,
                "temLang": 1,
                "templateCommons": [
                        "id": 231,
                         "templateId": 299,
                         "number": null,
                         "content": null,
                         "note": null
                "createdTime": "2019-12-19 12:29:09"
        "size": 1
    "type": null,
    "success": true,
    "errorMsg": null
```

7. Delete commodity/category interface

- 1) request address sg.yalabi.net/open/deleteGoodsOrCategory
- 2) request header

| name | type | illustrate | |
|--------------|--------|--------------------------------------|--|
| veryText | String | Generate a 32-bit lowercase string | |
| Verylext | String | through MD5 encryption. | |
| | | Encryption format : key+current date | |
| | | (key+yyyy-MM-dd) | |
| merchantCode | String | Merchant ID | |
| content-type | String | application/json | |
| type | String | Interface type (1:commodity | |
| -37- | | 2:category) | |
| action | String | Action (0: all, 1: single, delete | |
| | | single by default) | |

3) request parameters

| name | type | illustrate | Is it required? |
|-------------------------|--------|------------------------------------|-----------------|
| merchantGoodsId | String | Product unique identifier (type=1) | Yes |
| merchantGoodsCategoryId | String | Categories ID (type=2) | Yes |

4) response parameters

| name | type | illustrate |
|----------|--------|--|
| code | String | HTTP status code returned by the server, successfully returned 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |

5) illustrate

- ①The store does not have permission to delete product categories
- ②When the action parameter is empty or 1, the request only deletes one product / product category data, and the request parameters need to be filled in. When the action parameter is 0, the request deletes all product / product category data, and no request parameters need to be filled in .

6) Example request parameters

```
Delete item: type = 1
{
    "merchantGoodsId": "2175213",
}

Delete category: type = 2
{
    "merchantGoodsCategoryId": "2"
}
```

7) Example response parameters

```
{
    "detailError": null,
    "code": 200,
    "data": null,
    "type": null,
    "success": true,
    "errorMsg": null
}
```

8. reset queue

1) request address sg.yalabi.net /open/resetQueue

2) request header

| name | type | illustrate |
|--------------|--------|--------------------------------------|
| vorvTovt | String | Generate a 32-bit lowercase string |
| veryText | String | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

| name | type | illustrate | whether required |
|----------|---------|---------------------------------------|---------------------|
| | | Retry time period type query format | |
| timeType | Integer | (1=10 minutes, 2=30 | Yes |
| | | minutes, 3=1 hour, 4=3 hours, 5=24 | |
| | | hours , 6=3 | |
| | | days, 7=7 days) | |

4) response parameters

| name | type | illustrate |
|----------|--------|--|
| code | String | HTTP status code returned by the server, successfully returned 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |

5) illustrate

- ① Currently timeType only supports 1 to 7 types of selection.
- ② 1 means retry delivery queue within 10 minutes
 - 2 Indicates that the retry delivery queue is within 30 minutes
 - 3 Indicates the retry delivery queue within 1 hour
 - 4 Indicates the retry delivery queue within 3 hours
 - 5 Indicates the retry delivery queue within 24 hours
 - 6 queue for retry delivery within 3 days
 - 7 Indicates that the retry delivery queue is within 7 days

6) Example of request parameters

```
{
    " timeType ": 1
}
```

7) Example response parameters

```
{
    "detailError": null,
    "code": 200,
    "data": null,
    "type": null,
    "success": true,
    "errorMsg": null
}
```

9. The list of update queue batches

1) request address sg.yalabi.net/open/getQueueBatList

2) request header

| name | type | illustrate |
|--------------|--------|--------------------------------------|
| veryText | String | Generate a 32-bit lowercase string |
| | | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

| name | type | illustrate | whether required |
|-------------|---------|---|---------------------|
| currentPage | Integer | Current page, default is 1 | no |
| pageSize | Integer | The number of records displayed on each page, the default is 10 | no |
| startTime | String | Delivery start time format yyyy-MM-dd | no |
| closureTime | String | Delivery end time format yyyy- MM-dd | no |

4) response parameters

| name | type | illustrate |
|------------------|---------|----------------------------------|
| code | String | HTTP status code returned by the |
| Code | String | server, successfully returned |
| | | 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error |
| | | message |
| data | object | The data returned by the server |
| data object data | | |
| queueBatch | String | queue batch |
| | | Queue type (1=binding, |
| queueType | Integer | 2=unbinding, 3=template change, |
| | | 4=commodity price change, |
| | | 5=quick price change, 6= |
| | | schedu l ed |
| | | price change) |
| queueCount | Integer | Total number of batch queues |
| successCount | Integer | Batch Queue Success Count |
| waitCount | Integer | Batch Queue Waiting Count |
| failCount | Integer | batch queue failures |
| merchantName | String | Business Name |
| username | String | operator name |

5) illustrate

- ① By default, only the data of the past week is queried.
- ② The query is limited to data within the past 2 months.

6) Request parameter example

```
{
    "currentPage": 1,
    "pageSize": 10,
    "startTime": "2021-02-3",
    "closureTime": "2021-03-3"
}
```

7) Example of response parameters

```
{
    "detailError": null,
    "code": 200,
    "data": {
        "total": 1,
        "pages": 1,
        "pageNum": 1,
        "pageSize": 10,
        "list": [
            {
                "queueBatch": "20213565955858",
                "queueType": 1,
                "queueCount": 10,
                "successCount": 0,
                "waitCount": 0,
                "failCount": 0,
                "merchantName": ""
                "username": ""
        ],
        "size": 1
    },
    "type": null,
    "success": true,
    "errorMsg": null
```

10. Obtain the list of queue delivery information

1) request address sg.yalabi.net/open/getQueueSendInfo

2) request header

| name | type | illustrate |
|--------------|--------|--|
| veryText | String | Generate a 32-bit lowercase string through MD5 encryption. Encryption format : key+current date (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | whether required |
|-------------|---------|---|---------------------|
| currentPage | Integer | Current page, default is 1 | no |
| pageSize | Integer | The number of records displayed on each page, the default is 10 | no |
| queueBatch | String | queue batch | Yes |
| taskStatus | Integer | Queue Status (1 waiting , 2The update was successful , 3 update failed) | no |

4) response parameters

| name | type | illustrate |
|------------------|---------|--|
| code | String | HTTP status code returned by the server, successfully returned 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |
| data object data | | |
| goodsId | Long | Product ID |
| goodsName | String | product name |
| barCode | String | Commodity barcode |
| deviceCode | String | device ID |
| stationCode | String | base station number |
| templateld | Long | Template ID |
| templateName | String | template name |
| imgPath | String | Send template image url |
| taskStatus | Integer | Queue Status (1 waiting , 2 updated successfully , 3 update failed) |
| queueType | Integer | Queue type (1=binding, 2=unbinding, 3=modification board, 4=commodity price change, 5=quick price change, |

| | | 6=timed price change, |
|-----------------|------------|---------------------------------|
| | | 7=reissue, 8=cash register |
| | | price change) |
| createdTime | String | Send time format yyyy-MM-dd |
| | | HH:mm:ss |
| LootlindotoTimo | C+ u i n m | Delivery completion time format |
| lastUpdateTime | String | yyyy-MM-dd |
| | | HH:mm:ss |

5) illustrate

1) The queueBatch parameter must be passed

6) Request parameter example

```
{
    "currentPage": 1,
    "pageSize": 10,
    "queueBatch": "266566595626"
}
```

7) Example of response parameters

```
"detailError": null,
"code": 200,
"data": {
    "total": 1,
    "pages": 1,
    "pageNum": 1,
    "pageSize": 10,
    "list": [
                    "goodsId": 12,
                    "goodsName": "",
                    "barCode": "",
                    "deviceCode": "",
                    "stationCode": "",
                    "templateId": 0,
                    "templateName": "",
                    "imgPath": "",
                    "taskStatus": 1,
                    "queueType": 1,
                    "createdTime": "2021-03-29 10:50:15",
                    "lastUpdateTime": "2021-03-29 10:50:15"
    ],
    "size": 1
"type": null,
"success": true,
"errorMsg": null
```

11. Get product list

1) request address

sg.yalabi.net/open/getGoodsList httpMethod: Post

2) request header

| name | type | illustrate | |
|----------|--------|--------------------------------------|--|
| | | Generate a 32-bit lowercase string | |
| veryText | String | through MD5 encryption. | |
| | | Encryption format : key+current date | |
| | | (key+yyyy-MM-dd) | |

| merchantCode | String | Merchant ID |
|--------------|--------|------------------|
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | whether required |
|-------------|---------|---|---------------------|
| currentPage | Integer | Current page, default is 1 | no |
| pageSize | Integer | The number of records displayed on each page, the default is 10 | no |
| barCode | String | barcode | no |

4) response parameters

| name | type | illustrate |
|------------------|------------|---|
| code | String | HTTP status code returned by the server, success return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |
| data object data | | |
| id | Long | Product ID |
| name | String | product name |
| goodsCategoryId | Long | Product Category ID |
| categoryName | String | Product category name |
| skuCode | String | Merchant sku barcode |
| barCode | String | Commodity barcode |
| commonPrice | BigDecimal | retail price |
| memberPrice | BigDecimal | member price |

| bargainPrice | BigDecimal | Sale price |
|--------------|------------|--|
| marketPrice | BigDecimal | market price |
| type | Integer | Merchant Type 2: Head Office, 3: Branches |
| createdTime | String | Creation time format yyyy-MM- dd HH:mm:ss |
| status | Integer | Product data status (1= 0K, 2= Frozen, 3=delete) |
| merchantld | Long | Merchant ID |
| shopName | String | Merchant name |
| spec | String | Commodity attribute collection Josn format |

5) illustrate

6) Example request parameters

```
{
    "currentPage": 1,
    "pageSize": 10,
    "barCode": "266566595626"
}
```

7) Example response parameters

```
"detailError": null,
"code": 200,
"data": {
    "total": 1,
    "pages": 1,
    "pageNum": 1,
    "pageSize": 10,
    "list": [
               "id": 1244,
               "name": test",
               "goodsCategoryId": 54554,
               "categoryName": "fruit",
               "skuCode": "5584558",
               "barCode": "1055858755",
               "commonPrice": 8.5,
               "memberPrice": 1,
               "bargainPrice": 1,
               "marketPrice": 1,
               "type": 3,
               "createdTime": "2021-03-29 10:50:15",
               "status": 1,
               "merchantId": 1011,
               "shopName": "Test No. 1
               "spec": "{}"
    "size": 1
"type": null,
"success": true,
"errorMsg": null
```

12. Add Flash Project

1) request address

sg.yalabi.net/open/addFlashPlan

httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|--------|--------------------------------------|
| veryText | String | Generate a 32-bit lowercase string |
| verytext | String | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

| name | type | illustrate | whether required |
|-------------------|---------|--|---------------------|
| planName | String | flash project name | Yes |
| color | Integer | Color number: 1=red, 2=orange, 3=yellow, 4= Green, 5=cyan, 6=blue, 7=purple | Yes |
| frequency | Integer | Flashing frequency (5, 10, 15) seconds | Yes |
| planType | Integer | Execute the flashing light type: 1 Execute according to the template 2 Execute by Commodity3 Execute by Device | Yes |
| templates | String | When planType = 1, multiple template IDs are separated by commas; when planType = 2, multiple product IDs are separated by commas; when planType = 3, multiple device IDs are separated comma separated | Yes |
| planStartTim e | String | Flash start time format: yyyy-MM-dd HH:mm:ss | Yes |

| planEndTime | String | Flashing end time format: | Yes |
|-------------|--------|---------------------------|-----|
| | | yyyy-MM-dd HH:mm:ss | |

4) response parameter

| name | type | illustrate |
|----------|--------|--------------------------------------|
| code | String | HTTP status code returned by |
| Code | String | the server, success |
| | | return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | String | The data returned by the server |

5) illustrate

6) Example request parameters

```
{
    " planName ": "Handy
    Daddy" , " colour ":
    1,
    " frequency ": 5,
    " planType ": 1,
    " templates ": "101",
    " planStartTime ": "2021-6-8 15:30:00",
    "planEndTime": "2021-6-8 15:40:00"
}
```

7) Example response parameters

```
{
    "detailError": null,
    "code": 200,
    "data": null,
    "type": null,
    "success": true,
    "errorMsg": null
}
```

13. Execute flash operation

1) request address

sg.yalabi.net/open/flashPlanHandle

httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|----------|--------------------------------------|
| varyTay+ | String | Generate a 32-bit lowercase string |
| veryText | oti ilig | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | whether required |
|----------------|---------|---|---------------------|
| color | Integer | Color number: 1=red, 2=orange, 3=yellow, 4= | Yes |
| | | Green, 5=cyan, 6=blue, 7=purple | |
| frequency | Integer | Flashing frequency (5, 10, 15) seconds | Yes |
| planType | Integer | Execute the flashing light type: 1 Execute according to | Yes |
| | | the template 2 Execute by Commodity3 Execute | |
| | | by Device | |
| | | When planType = 1 , it is the | |
| | | template ID, separated by | |
| | | commas, planType When =2, | |
| templates Stri | | multiple product IDs are | |
| | String | separated by commas, planType | Yes |
| | | When = 3, it is the device ID, | |
| | | separated by commas, planType | |
| | | =4 is the commodity code (the | |
| | | unique identifier of the | |
| | | commodity, corresponding to the newly added commodity interface | |
| | | " merchantGoodsId "field, or | |
| | | add a product interface on the | |
| | | PC side of the ESL tag platform | |

| | | " Commodity SKU " column) multiple comma-separated | |
|-------|---------|---|-----|
| count | Integer | Number of flashes | Yes |

4) response parameters

| name | type | illustrate |
|----------|--------|--------------------------------------|
| code | String | HTTP status code returned by |
| Code | String | the server, success |
| | | return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | String | The data returned by the |
| data | String | The data returned by the server |

5) illustrate

6) Example request parameters

```
" colour ": 1,
    " frequency ": 5,
    " planType ": 1,
    " templates ": "101",
    "count": 100
}
```

7) Example response parameters

```
{
   "detailError": null,
   "code": 200,
   "data": null,
   "type": null,
   "success": true,
   "errorMsg": null
}
```

14. Execute lights out

1) request address

 $sg.yalabi.net/{\tt open/endFlashPlanHandle}$

httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|--------|--------------------------------------|
| veryText | String | Generate a 32-bit lowercase string |
| , | | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | whether required |
|------------|-------|---|---------------------|
| goodsCodes | Array | Commodity code collection, JSON array format (commodity unique identifier, corresponding to the newly added commodity interface " merchantGoodsld " field, or price new commodity interface on the PC side of the signing platform " Commodity SKU " column) | Yes |

4) response parameters

| name | type | illustrate |
|------|--------|------------------------------|
| code | String | HTTP status code returned by |
| | | the server, success |
| | | return 200 |

| success | String | whether succeed |
|----------|--------|--------------------------------------|
| errorMsg | String | The server returned an error message |
| data | String | The data returned by the server |

5) illustrate

6) Example request parameters

```
[
    " 478455874 ",
    " 458854545 ",
]
```

7) Example response parameters

```
{
   "detailError": null,
   "code": 200,
   "data": null,
   "type": null,
   "success": true,
   "errorMsg": null
}
```

15. Get user login TOKEN

1) request address

sg.yalabi.net/open/get Token

httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|--------|--------------------------------------|
| T ± | C+ : | Generate a 32-bit lowercase string |
| veryText | String | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| nomo | + | illustrate | whether | | |
|------|------|------------|------------|----------|--|
| | name | type | Titustrate | required | |

4) response parameter

| name | type | illustrate |
|----------|----------|-------------------------------|
| code | String | HTTP status code returned by |
| Code | String | the server, success |
| | | return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error |
| | | message |
| data | String | The data returned by the |
| data | OCI IIIg | server, if successful, return |
| | | TOKEN value |

5) illustrate

6) Example request parameters

```
{}
```

7) Example response parameters

```
{
   "detailError": null,
   "code": 200,
   "data": "eyJhbGciOiJSUzI1NiJ9.eyJpZCI6MzAsInVzZXJuYW1IIjoieWFsY",
   "type": null,
   "success": true,
   "errorMsg": null
}
```

16. Clear the product promotion price and send it

1) request address

sg.yalabi.net/open/removeGoodsPromotion httpMethod: Post

2) request header

| name | type | illustrate |
|----------|--------|--------------------------------------|
| voryToy+ | String | Generate a 32-bit lowercase string |
| veryText | String | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |

| merchantCode | String | Merchant ID |
|--------------|--------|------------------|
| content-type | String | application/json |

3) request parameters

| la ama | tuno | : I luctuata | whether |
|--------|------|--------------|----------|
| name | type | illustrate | required |

4) response parameter

| name | type | illustrate |
|----------|--------|--------------------------------------|
| code | String | HTTP status code returned by |
| Code | otring | the server, success |
| | | return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | String | The data returned by the |
| | | server |

5) illustrate

6) Example request parameters

```
0
```

7) Example response parameters

```
{
  "detailError": null,
  "code": 200,
  "data": null,
  "type": null,
  "success": true,
  "errorMsg": null
}
```

17. Get store list

1) request address

sg.yalabi.net/open/store/page

httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|----------|--------------------------------------|
| veryText | String | Generate a 32-bit lowercase string |
| VOLVICAC | OCI IIIg | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | Is it required? |
|-------------|---------|---|-----------------|
| name | String | store name | no |
| currentPage | Integer | Current page, default is 1 | no |
| pageSize | Integer | The number of records displayed per page, the default is 10 | no |
| | | strip | |

4) response parameter

| name | | ty | ре | illustrate |
|-------------|-------------------|------|---|--------------------------------------|
| code | | ring | HTTP status code returned by the server, success return 200 | |
| success | success St | | ring | whether succeed |
| errorMsg | St | | ring | The server returned an error message |
| data | lata St | | ring | The data returned by the server |
| data object | data | | | |
| appKey | String | | store key | |
| code | String | | store number | |
| name | String s | | store nam | е |
| userName | String Store acco | | | ount, YalaTech cloud ESL tag |

| contactName | String | Store Contact Name |
|-------------|--------|----------------------------------|
| phone | String | Store contact number |
| status | Int | Store status (1 normal 2 frozen) |
| createdTime | String | creation time |

5) illustrate

6) Example request parameters

```
{
    "name": "",
    "currentPage": 1,
    "pageSize": 10,
}
```

7) Example response parameters

```
"detailError": null,
"code": 200,
"data": {
    "appKey":
    "6e37793D7046F32", "code":
    "SC5009",
    "name": "No. 1 YalaTech
    Warehouse",
    "userName": "yala9577",
    "contactName":" Lin
    Cong",
    "phone": "13760066666",
    "status": 1,
    "createdTime": "2020-02-13 10:20:10"
},
"type": null,
"success": true,
"errorMsg": null
```

18. Send ESL tag text content

1) request address

sg.yalabi.net/open/textSend

httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|--------|--------------------------------------|
| veryText | String | Generate a 32-bit lowercase string |
| verytext | String | through MD5 encryption. |
| | | Encryption format : key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | Is it required? |
|-------------|--------|---|-----------------|
| deviceCode | String | ESL tag number | Yes |
| stationCode | String | base station number | no |
| items | Array | collection of text content | Yes |
| text | String | text content | Yes |
| maxWidth | Int | text object maximum width | Yes |
| encoding | String | The encoding method accepted by the device (Default: GB2312) | Yes |
| left | Int | Horizontal starting position | no |
| top | Int | vertical start position | no |
| bgStyle | Int | Text object background style (basemap: 0~0x10 basemap partition, 0 For start page , 1-A | no |
| | | District , 2-B Area. 0xf0 White bottom 0xf1 black bottom 0xf2 red bottom) | |

| fgStyle | Int | Text object foreground style (1: black text on white background, 2: red text on white background, 3: white text on black background, 4: red text on black background, 5: white text on red background, 6 black text on red background, 7 black text on transparent background, 8 White characters on transparent bottom, 9 transparent bottom scarlet letter) | no |
|-----------|-----|---|----|
| font1Size | Int | Text type 1 font size (0: size 8, 1: size 12, 2: size 16, 3: size 18, 4:24, 5:32, 6:40, 7:48 other font sizes will be added later) | no |
| font2Size | Int | Text Type 2 Font Size | no |
| alignment | Int | Text alignment settings (0 font left, 1 font center mode, 2 font right) | no |

4) response parameter

| name | type | illustrate |
|----------|--------|--------------------------------------|
| code | String | HTTP status code returned by |
| | | the server, success return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |

5) illustrate

6) Example request parameters

```
[{
    "deviceCode": "DE10000",
    "stationCode": "XD10006",
    "items": [
    {
        "text": "Product",
        "maxWidth": 60,
        "encoding": "GB2312",
        "left": 0,
        "top": 0,
        "bgStyle": 0,
        "fgStyle": 0,
        "font1Size": 0,
        "font2Size": 0,
        "alignment": 0
    }
]
```

7) Example response parameters

```
{
   "detailError": null,
   "code": 200,
   "data": null,
   "type": null,
   "success": true,
   "errorMsg": null
}
```

19. Product price change

1) request address

sg.yalabi.net/open/goodsEditPrice

httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|--------|--|
| veryText | _ | Generate a 32 -bit lowercase string through MD5 encryption. Encryption format: key+current date (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |

| content-type String application/json | |
|--------------------------------------|--|
|--------------------------------------|--|

3) request parameters

| name | type | illustrate | Is it required? |
|------------------|--------|---------------------------|-----------------|
| merchantGoodsId | String | Product unique identifier | Yes |
| markerPrice | Number | market price | no |
| memberPrice | Number | member price | no |
| normalPrice | Number | retail price | no |
| promotionalPrice | Number | Sale price | no |

4) response parameters

| name | type | illustrate |
|----------|--------|--------------------------------------|
| code | String | HTTP status code returned by |
| Code | String | the server, success |
| | | return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |

5) illustrate

- ①The request parameter type is a json array
- ②The length of the json array cannot exceed 200 in a single push

6) Example request parameters

```
[{
    " merchantGoodsId ": "145454845",
    " markerPrice ": 100,
    " memberPrice ": "100",
    " normalPrice ": 100,
    " promotionalPrice ": 100
}]
```

7) Example response parameters

```
{
    "detailError": null,
    "code": 200,
    "data": null,
    "type": null,
    "success": true,
    "errorMsg": null
}
```

20. Device

Transfer

1) request address

sg.yalabi.net/open/deviceTransfer httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|--------|-------------------------------------|
| | | Generate a 32 -bit lowercase string |
| veryText | String | through MD5 encryption. |
| | | Encryption format: key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | Is it required? |
|------------|--------|--------------|-----------------|
| deviceCode | String | device ID | Yes |
| storeCode | String | store number | Yes |

4) response parameters

| name | type | illustrate |
|----------|--------|--------------------------------------|
| code | String | HTTP status code returned by |
| Code | String | the server, success |
| | | return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |

5) illustrate

- ①The request parameter type is a json array
- ②The length of the json array cannot exceed 200 in a single push

6) Example of request parameters

```
[{
    "deviceCode": "145454845",
    "storeCode": "SC10000"
}]
```

7) Example of response parameters

```
{
    "detailError": null,
    "code": 200,
    "data": null,
    "type": null,
    "success": true,
    "errorMsg": null
}
```

21. HTML queue text delivery

1) request address

sg.yalabi.net/open/htmlTextSend

httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|--------|--|
| veryText | String | Generate a 32 -bit lowercase string through MD5 encryption. Encryption format: key+current date (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| | name | type | illustrate | ls it |
|-----------|------|------|------------|-----------|
| required? | | | | required? |

| deviceCode | String | device ID | Yes |
|-------------|--------|---------------------|-----|
| stationCode | String | base station number | no |
| content | String | HTML text | Yes |

4) response parameter

| name | type | illustrate |
|----------|--------|--|
| code | String | HTTP status code returned by the server, success |
| | | return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |

5) illustrate

- 1)The request parameter type is a json array
- ②The length of the json array cannot exceed 200 in a single push

6) Example of request parameters

```
[{
    "deviceCode": "145454845",
    "stationCode": "ZD0000"
    "content": "<div></div>"
}]
```

7) Example of response parameters

```
{
   "detailError": null,
   "code": 200,

   "data": null,
   "type": null,
   "success": true,
   "errorMsg": null
}
```

22. Device unbinding

1) request address

sg.yalabi.net/open/deviceUntie

httpMethod: Post

2) request header

| name | type | illustrate |
|--------------|--------|-------------------------------------|
| | | Generate a 32 -bit lowercase string |
| veryText | String | through MD5 encryption. |
| | | Encryption format:key+current date |
| | | (key+yyyy-MM-dd) |
| merchantCode | String | Merchant ID |
| content-type | String | application/json |

3) request parameters

| name | type | illustrate | Is it required? |
|-------------|--------|---------------------|-----------------|
| deviceCode | String | device ID | Yes |
| stationCode | String | base station number | no |

4) response parameter

| name | type | illustrate |
|----------|---------|--------------------------------------|
| code | String | HTTP status code returned by |
| Code | Octifie | the server, success |
| | | return 200 |
| success | String | whether succeed |
| errorMsg | String | The server returned an error message |
| data | object | The data returned by the server |

5) illustrate

- 1)The request parameter type is a json array
- $\ensuremath{\mathfrak{D}}$ The length of the json array cannot exceed 200 in a single push

6) Example of request parameters

```
[{
    "deviceCode": "145454845",
    "stationCode": "ZD0000"
}]
```

7) Example of response parameters

```
{
   "detailError": null,
   "code": 200,
   "data": null,
   "type": null,
   "success": true,
   "errorMsg": null
}
```