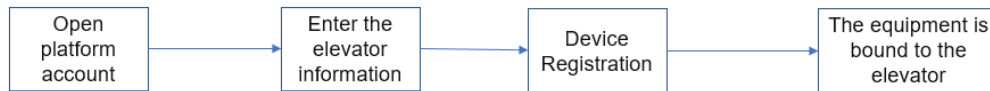# Third-party device open platform
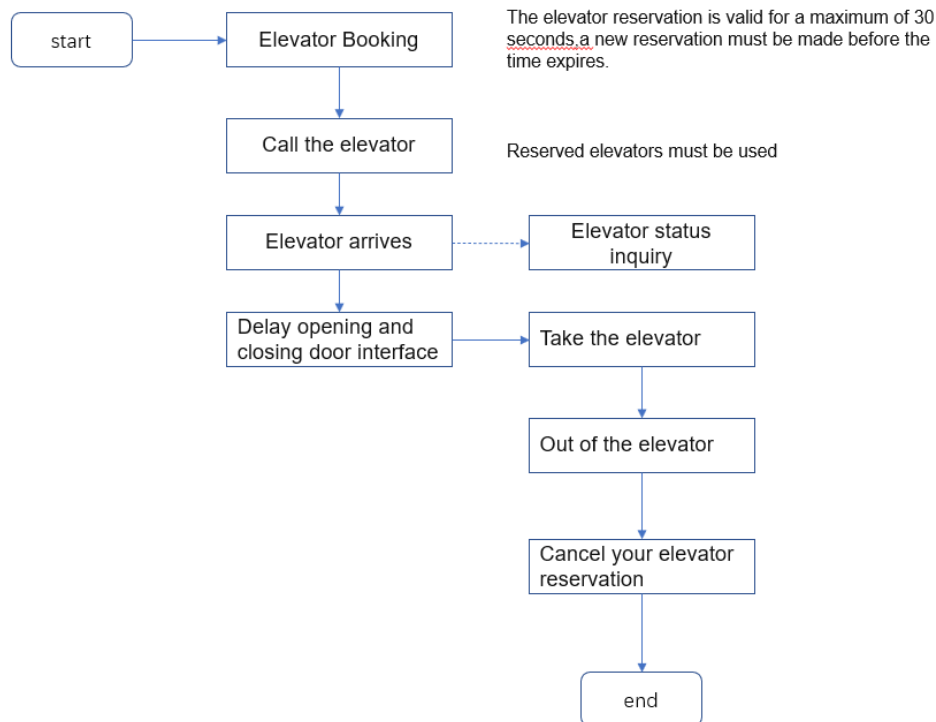
1 Introduction to the third-party device access process

This section mainly introduces common business processes.

1.1 Pre-stage of third-party use of elevator

1.2 Third-party elevator use process

2 Access public parameters

his section contains public parameters related to security verification.

Parameter name	meaning	Remark
sign	Request signature	
ts	Timestamp (milliseconds)	
check Device Security Signature	md5(deviceUuid + | + ts + | + deviceSecret)	32-bit lowercase hex

3 Access basic interface

This section provides the basic interface for third-party devices to use Yunji IoT facilities (such as elevators), which involves binding authorization, etc, The interval between calls to the same robot is > 5s, a response will be sent 1-2 seconds after receiving the request .

name	Interface
Device registration interface	/openapi/v5/device/register
Device binding elevator interface	/openapi/v5/device/ binding
Unbind the device from the elevator	/openapi/v5/device/ unbinding

3.1 Device Registration Interface

Third-party registered device information.

POST /openapi/v5/device/register
ContentType: application/json

Parameter

Parameter	Type	Meaning
deviceMac	String Required	third-party device MAC address, 12 hex uppercase characters, unique in the same location
deviceUuid	String Required	third-party device unique code, 24 hex uppercase characters, globally unique code, used for near field communication authentication, must be globally unique one

message example:
request message
```
{
    "deviceUuid": "010203040506070809101115",
    "appname": "tbrooker@ yijiahe.com",
    "sign": "c529b386bf631adc56a8205fc3b9f268",
    "deviceMac": "112233445575",
    "ts": 1676031922334
}
```

Return Value:
```
{
   "errcode": 0,    // 0 :    The call is successful; others: the call fails
```

```
    "errmsg": "SUCCESS",
    "result": [
        {
            "deviceMac ": "1122334455AB",
            "deviceUuid": "AB0203040506070809101112",
            "deviceSecret": "010203040506070809101112"
        }
    ]
}
```

3.2 Device Binding Elevator Interface

POST /openapi/v5/device/binding

ContentType: application/json

Parameter	Type	Meaning
deviceUuid	String Required	third-party device unique code, 24 hex uppercase characters, globally unique code, used for near field communication authentication, must be globally unique one
placeId	String Required	binding location ID
liftNos	int[] Optional	elevator number. If it is empty, it will bind all elevators with access rights under this location; if it is not empty, it will bind a specific elevator

message example:
request message
```
{
    "deviceUuid": "010203040506070809101115",
    "appname": "tbrooker@yijiahe.com",
    "liftNos": [],
    "placeId": "625c45c78ec3445b8b17bfc8d628cbb8",
    "sign": "f56ac91ea9682a64c253ea6d9d53fcd3",
    "check": "3f2a65abe374d1571973454f436f13a4",
    "ts": 1676031922334
}
```

Return Value:
```
{
    "errcode": 0,    // 0 :    The call is successful; others: the call fails
    "errmsg": "SUCCESS",
    "result": [
```

```
  {
    "bindingStatus": "01", // Unbound, 00 Binding, 10 Unbinding, 01    11    Bound
    "liftNo":258742
    }
  ]
}
```

3.3 Device UnBinding Elevator Interface

POST /openapi/v5/device/unbinding

ContentType: application/json

Parameter	Type	Meaning
deviceUuid	String Required	third-party device unique code, 24 hex uppercase characters, globally unique code, used for near field communication authentication, must be globally unique one
placeId	String Required	binding location ID
liftNos	int[] Optional	elevator number. If it is empty, it will bind all elevators with access rights under this location; if it is not empty, it will bind a specific elevator

message example:
request message
```
{
    "deviceUuid": "010203040506070809101115",
    "appname": "tbrooker@yijiahe.com",
    "liftNos": [],
    "placeId": "625c45c78ec3445b8b17bfc8d628cbb8",
    "sign": "f56ac91ea9682a64c253ea6d9d53fcd3",
    "check": "3f2a65abe374d1571973454f436f13a4",
    "ts": 1676031922334
}
```

Return Value:
```
{
  "errcode": 0,    // 0 :    The call is successful; others: the call fails
  "errmsg": "SUCCESS",
  "result": [
  {
    "bindingStatus": "01", // Unbound, 00 Binding, 10 Unbinding, 01    11    Bound
```

```
        "liftNo":258742
      }
    ]
}
```

4 Elevator service interface

This part is the elevator service interface used by third-party equipment. The interval between calls to the same robot is > 5s, a response will be sent 1-2 seconds after receiving the request .

name	Interface
Elevator list query	/openapi/v5/lift/list
Elevator status query	/openapi/v5/ lift /status
Call elevator	/openapi/v5/ lift /call
Delayed opening/closing door	/openapi/v5/ lift /open
Reservation/cancel call	/openapi/v5/lift/lock

4.1 Elevator list query

POST /openapi/v5/lift/list

ContentType: application/json

Parameter	Type	Meaning
deviceUuid	String Required	third-party device unique code, 24 hex uppercase characters, globally unique code, used for near field communication authentication, must be globally unique one
placeId	String Required	binding location ID

message example:
request message
```
{
   "deviceUuid": "010203040506070809101111",
   "appname": "tbrooker@yunji.ai.com",
   "placeId": "625c45c78ec3445b8b17bfc8d628cbb8",
   "sign": "ad1765a23d5847916fdb9c2593fc8fce",
   "check": "6434e1ce047d7c090f0f49145f2bff78",
   "ts": 1676032062685
}
```

Return message:

```
{
    "errcode": 0,    // 0 :    The call is successfuls
    "errmsg": "SUCCESS",
    "result": [
            {
                "liftNo": 258742,
                "accessibleFloors": "1,2,3,4,5,6,7,8,12,14,15,634",
                "bindingStatus": "01"
            },
            {
                "liftNo": 123,
                "accessibleFloors": "[]",
                "bindingStatus": "-1" //Unbound 00, Binding 01, unbinding 10 , bound 11, -1 not authorized
            }
    ]
}
```

4.2 Elevator status query

POST /openapi/v5/lift/status

ContentType: application/json

Parameter	Type	Meaning
deviceUuid	String Required	third-party device unique code, 24 hex uppercase characters, globally unique code, used for near field communication authentication, must be globally unique one
placeId	String Required	binding location ID
liftNo	Int Required	Elevator No.

message example:
request message

```
{
    "deviceUuid": "010203040506070809101111",
    "appname": "tbrooker@yunji.ai.com",
    "placeId": "625c45c78ec3445b8b17bfc8d628cbb8",
    "sign": "b461846c9fdbe8b0cae81a6649b6bd79",
    "check": "1cb21c6cbdb429c65dcac0386be66c91",
    "liftNo": 1,
    "ts": 1676032104815
}
```
Return message:

```
{
    "errcode": 0,
    "errmsg": "SUCCESS",
    "result":
    {
        "liftNo": 17244,
        "floor":  5, // Elevator number
        "state": 0,      /
        "prevDirection": 2,      // 0 unknown, 1 uplink, 2 downlink, 3 unavailable field
        "liftDoorStatus": 2      // 0 unknown, 1 open, 2 closed, 3 unavailable field
    }
}
```

4.3 Call elevator

POST /openapi/v5/lift/call

ContentType: application/json

Parameter	Type	Meaning
deviceUuid	String Required	third-party device unique code, 24 hex uppercase characters, globally unique code, used for near field communication authentication, must be globally unique one
placeId	String Required	binding location ID
liftNo	Int Required	Elevator No.
toFloor	Int Required	Destination floor

message example:
request message
```
{
  "deviceUuid": "010203040506070809101111",
  "appname": "tbrooker@yunji.ai.com",
  "placeId": "625c45c78ec3445b8b17bfc8d628cbb8",
  "sign": "b461846c9fdbe8b0cae81a6649b6bd79",
  "check": "1cb21c6cbdb429c65dcac0386be66c91",
  "liftNo": 1,
  "toFloor": 40,
  "ts": 1676032104815
}
```

Return message:
```
{
    "errcode": 0,
```

```
    "errmsg": "SUCCESS",
}
```

4.4 Delayed opening/closing door

POST /openapi/v5/lift/open

ContentType: application/json

Parameter	Type	Meaning
deviceUuid	String Required	third-party device unique code, 24 hex uppercase characters, globally unique code, used for near field communication authentication, must be globally unique one
placeId	String Required	binding location ID
liftNo	Int Required	Elevator No.
seconds	Int Required	delay in seconds. 0: open/close the door immediately ; non-zero, open/close the door after a delay of seconds; value range [0,9] seconds

message example:
request message
```
{
    "deviceUuid": "010203040506070809101111",
    "appname": "tbrooker@yunji.ai.com",
    "placeId": "625c45c78ec3445b8b17bfc8d628cbb8",
    "sign": "b461846c9fdbe8b0cae81a6649b6bd79",
    "check": "1cb21c6cbdb429c65dcac0386be66c91",
    "liftNo": 1,
    "seconds": 9,
    "ts": 1676032104815
}
```

Return message:
```
{
    "errcode": 0,
    "errmsg": "SUCCESS",
}
```

4.5 Reservation/cancel call

POST /openapi/v5/lift/lock

ContentType: application/json

Parameter	Type	Meaning
deviceUuid	String Required	third-party device unique code, 24 hex uppercase characters, globally unique code, used for near field communication authentication, must be globally unique one
placeId	String Required	binding location ID
liftNo	Int Required	Elevator No.
locked	Int Required	delay in seconds. 0: cancel,1 reserved

message example:
request message

```
{
  "deviceUuid": "010203040506070809101111",
  "appname": "tbrooker@yunji.ai.com",
  "placeId": "625c45c78ec3445b8b17bfc8d628cbb8",
  "sign": "b461846c9fdbe8b0cae81a6649b6bd79",
  "check": "1cb21c6cbdb429c65dcac0386be66c91",
  "liftNo": 1,
  "locked": 0,
  "ts": 1676032104815
}
```

Return message:

```
{
    "errcode": 0,
    "errmsg": "SUCCESS",
}
```