### API

- Preparations
- Signing Process
  - Generating KeyTime
  - Generating SignKey
  - Generating HttpParametersString
  - Generating Signature
  - Signature Use
- Service API for Alder
  - Get Token Process
  - Generate OpenId (Yi User ID)
  - Get User Token
  - Arm/Disarm (unrealized)
  - Subscribe cloud storage (not used)
  - Cancel cloud storage (not used)
  - Get Camera List
  - Remove user
- Notification for Service
  - Alert / Bind
- Cloud Service (new added on 20201019)
  - Delete Camera
  - Upgrade Order
  - Cancel Order
  - Renew Order

## **Preparations**

**TEST ENVIRONMENT** 

DOMAIN=openapi-cn-test.xiaoyi.com/

PROD ENVIRONMENT

DOMAIN=open-gw.xiaoyi.com/

Obtain your APPID and SecretKey.

Example:

AppID	SecretKey
Bib82JkvvtC4eCUuI2 d7zzSBfAFpCcW3	9zUEzIUS4rIXIC2kCtZvEVQZKYYRY2Zr

## **Signing Process**

## **Generating KeyTime**

- 1. Get the Unix timestamp(second) "StartTimestamp" corresponding to the current time.
- 2. Calculate the Unix timestamp "EndTimestamp" corresponding to the signature expiry time based on the timestamp above and the expected validity period of the signature.
- 3. Splice the signature validity period in the format of StartTimestamp;EndTimestamp.

Example:

keyTime=1581782400;1581786000

## **Generating SignKey**

Calculate the message digest (hash value) using HMAC-SHA1 with SecretKey as the key and KeyTime as the message, which is SignKey.

Pseudocode:

SignKey=HMAC-SHA1(SecretKey, KeyTime)

#### **Generating HttpParametersString**

- 1. Traverse the HTTP request parameters, generate the key-to-value mapping "Map" and the key list "KeyList", where key is converted to lowercase and value is UrlEncoded.
- 2. Sort the KeyList in lexicographical order.
- 3. UrlEncode the keys in the Map and KeyList and convert them to lowercase too.
- 4. Splice all key-value pairs in the Map in the order of the KeyList in the format of key1=value1&key2=value2&key3=value3, which is the HttpParametersString.

### **Generating Signature**

Calculate the message digest using HMAC-SHA1 with **SignKey** as the key and [**HttpParametersString**] as the message, which is the Signature.

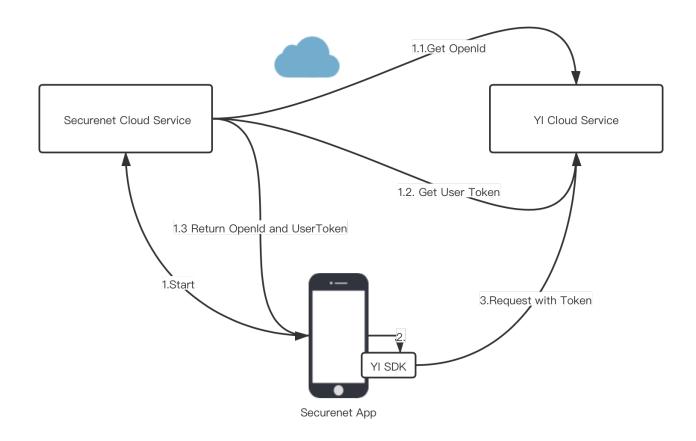
• HttpParametersStringNeed to exclude keytime and sign.

## Signature Use

Pass as an HTTP request parameter (be sure to UrlEncode), such as https://openapi-cn-test.xiaoyi.com/user\_token? appld=12345678&keyTime=1581782400;1581786000&sign=xxxxxx&client\_token=xxxxx

#### Service API for Alder

### **Get Token Process**



# Generate OpenId (Yi User ID)

URL	https://	https://{DOMAIN}/bm/v1/gen_openid				
Request Method	POST	POST				
Content-Type	applica	application/json				
Parameters						
		Name	Туре	Required	Description	
		appld	String	Yes		
		keyTime	String	Yes		
		sign	String	Yes		

```
Request Example
                                                  curl -H "Content-Type:
                                                  application/json" -X POST -
                                                  d '{"appid":"
                                                  31d7cd689aa946bda571ec27c065
                                                  3a0c","keyTime":"1581782400;
                                                  1581786000","sign":"
                                                  h1D2EqiyxOatM+1sqVqEv03Nq3U=
                                                  "}' https://{DOMAIN}/bm/v1
                                                  /gen_openid
Response
                                                  Name Type Requir
                                                                      Description
                                                              ed
                                                        Integ
                                                              Yes
                                                 code
                                                        er
                                                 msg
                                                        String Yes
                                                 open
                                                        String Yes
                                                                      32bit YI
                                                                      UserID
                                                  Id
Response Example
                                                  "code":20000,
                                                  "msg": "success",
                                                  "data":{
                                                           "openId": "32bit YI
                                                  UserID"
                                                   }
                                                   }
Description
```

#### **Get User Token**

URL	https:/	https://{DOMAIN}/bm/v1/user_token				
Request Method	GET	GET				
Content-Type						
Parameters		Name	Туре	Required	Description	
		openId	String	Yes	YI User ID	
		appld	String	Yes		
		keyTime	String	Yes		
		sign	String	Yes		

```
Request Example
                                                  curl https://{DOMAIN}/bm/v1
                                                  /user_token?
                                                  openId=cb6c3cf33131495c9f472
                                                  9bdb5e849c0&appid=31d7cd689a
                                                  a946bda571ec27c0653a0c&keyTi
                                                  me=1581782400;
                                                  1581786000&sign=h1D2EqiyxOat
                                                  M+1sqVqEv03Nq3U%3D
Response
                                                  Name
                                                            Type Required Description
                                                  code
                                                            String Yes
                                                  token
                                                            String Yes
                                                  expiresTime long
                                                                 Yes
Response Example
                                                   "code":20000,
                                                   "data":{
                                                           "accessToken:"
                                                  31d7cd68-9aa9-46bd-a571-
                                                  ec27c0653a0c",
                                                           "expiresTime":182222
Description
```

# Arm/Disarm (unrealized)

URL	https://{DOMAIN}/bm/v1/arm					
Request Method	POST					
Content-Type	application/json					
Parameters		Name 	Туре	Required	Description	
		openId	String	Yes	YI User ID	
		did	String	Yes	Camera Id	
		appld	String	Yes		
		keyTime	String	Yes		
		sign	String	Yes		
Description	To be	discuss				

# Subscribe cloud storage (not used)

URL	https://{DOMAIN	https://{DOMAIN}/bm/v1/cloud/subscribe					
Request Method	POST	POST					
Content-Type	application/json	application/json					
Parameters	Name	Ty pe	Requir ed	Des	scription		
	did	Stri ng	Yes	Car	nera Id		
	openio	Stri ng	Yes	ΥI U	Jser ID		
	startTi me	long	Yes		x timestamp cond)		
	endTi me	long	Yes		x timestamp cond)		
	appld	Stri ng	Yes				
	keyTi me	•					
	sign	Stri ng	Yes				
	appl d ' { FFCN oper cb66 49c0 1582 1582 31d7 3a06 1583 h1D2 " } '	<pre>curl -H "Content-Type: application/json" -X POST - d '{"did":" FFCNY0593SAVGQ171207"," openId":" cb6c3cf33131495c9f4729bdb5e8 49c0","startTime":" 1582539121","endTime":" 1582539121","appid":" 31d7cd689aa946bda571ec27c065 3a0c","keyTime":"1581782400; 1581786000","sign":" h1D2EqiyxOatM+lsqVqEv03Nq3U= "}' https://{DOMAIN}/bm/v1 /cloud/subscribe</pre>					
Response	Name	Туре	Requi	ired	Description		
	code	Intog	V				
	0000	Integ	er Yes				

```
Response Example

{
    "code":20000,
    "msg":"success"
    }

Description
```

# Cancel cloud storage (not used)

URL	https://{DOMAIN}/bm/v1/cloud/cancel					
Request Method	POST					
Content-Type	application/json					
Parameters	Name Ty Requir Description pe					
	did Stri Yes Camera Id					
	openId Stri Yes YI User ID					
	endTi long Yes Unix timestamp (second)					
	appld Stri Yes					
	keyTi Stri Yes me ng					
	sign Stri Yes					
Request Example	<pre>curl -H "Content-Type:     application/json" -X POST -     d '{"openId":"     cb6c3cf33131495c9f4729bdb5e8     49c0","endTime":"     1582539121""appid":"     31d7cd689aa946bda571ec27c065     3a0c","keyTime":"1581782400;     1581786000","sign":"     h1D2EqiyxOatM+1sqVqEv03Nq3U=     "}' https://{DOMAIN}/bm/v1     /cloud/cancel</pre>					
Response	Name Type Required Description					

Integer Yes

String Yes

code

msg

```
Response Example

{
    "code":20000,
    "msg":"success"
}

Description
```

## **Get Camera List**

	https://{	https://{DOMAIN}/bm/v1/cameralist				
Method	GET	GET				
-Туре						
eters		Name	Туре	Required	Description	
		openId	String	Yes		
		appld	String	Yes		
		keyTime	String	Yes		
		sign	String	Yes		
nse		/cb6c3cf33131495c9f4729bdb5e849c0? appid=31d7cd689aa946bda571ec27c0653a0c&keyTime=1581782400; 1581786000&sign=h1D2EqiyxOatM+1sqVqEv03Nq3U%3D				
ise		Name	Туре	Required	Description	
		code	Integer	Yes		
			Integer String	Yes Yes		
		did				
		did :	String	Yes		

#### Remove user

URL	https://{DOMAIN}/bm/v1/user/{openId}				
Request Method	DELETE				
Content-Type	application/json				
Parameters	Na	me	Туре	Required	Description
	оре	enId	String	Yes	
	арр	old	String	Yes	
	key	/Time	String	Yes	
	sigr	n	String	Yes	
	-c 31 3a 15 h1 "} /u	d '{" ld7cd a0c", 58178 lD2Eq }' ht	appid 689aa "keyT 6000" iyxOa tps:/	946bda57 ime":"15 ,"sign": tM+1sqVqi /{DOMAIN	1ec27c065 81782400; " Ev03Nq3U=

		Type	Required	Description
	code	Integer	Yes	
	msg	String	Yes	
esponse Example		e":200( ":"succ		

## **Notification for Service**

## Alert / Bind

URL	third-party provide
Request Method	POST
Content-Type	application/json

#### **Parameters**

Name	Туре	Required	Descrip tion
title	String	Yes	
type	int	Yes	3-bind;
			401- motion detect;
			402- people detect;
			403- baby crying detect;
			404- motion tracking;
			405- abnorma audio detect;
			601- camera edit;
			602- camera del;
message	String	Yes	
did	String	Yes	
timestamp	Long	Yes	
openId	String	Yes	
appld	String	Yes	
keyTime	String	Yes	
sign	String	Yes	

#### Response

Name	Туре	Required	Description
code	Integer	Yes	
msg	String	Yes	

### Description

```
{
"code":20000,
"msg":"success"
}
```

# Cloud Service (new added on 20201019)

## **Delete Camera**

URL	https://{D	https://{DOMAIN}/bm/v1/camera/remove					
Request Method	DELETE	DELETE					
Content-Type							
Parameters		_					
	Name	Туре	Required	Description			
	openId	String	Yes		-		
	appld	String	Yes		_		
	keyTime	String	Yes		-		
	sign	String String	Yes				
Request Example Response	appId= z1WWaN 2BCnrh	curl https://{DOMAIN}/bm/v1/camera/remove? appId=3Idw0k00G5QGiGVlsnn8bAEFCwVxkrCm&openId=y1Qb9K z1WWaNnYhAHDaTBgdA0dhyUrn1&sign=bJPtT% 2BCnrhz7hmlMOp7x6cloF8Y=&uid=TNPUSAE-561770- FTBYR&keyTime=1598244331;1698244931  Name Type Required Description					
	code	Integer	Yes				
	msg	String	Yes				
Response Example	"m	"code": 20000, "msg": "success", "data": null					
Description							

# **Upgrade Order**

URL	https://{DOMAIN}/bm/v1/order/upgrade
Request Method	POST
Content-Type	

Parameters				
arameters	Name	Туре	Required	Description
	openId	String	Yes	
	appld	String	Yes	
	keyTime	String	Yes	
	sign	String	Yes	
	uid	String	Yes	
	appSyst	em Integer	no	1-IOS
				2-Android
				3-PC
				DEFAULT:2
Response	Name	Type R	equired [	escription
	code	Integer Ye	es	
	code	Integer Yes		
		-	es	derCode
esnonse Fyamnie	msg	String Ye	es	
desponse Example	msg data  { "msg "cod	String Yes	ess",	
Response Example	msg data  { "msg "cod "dat	String Yes	ess",	derCode

## **Cancel Order**

URL	https://{DOMAIN}/v1/order/cancel			
Request Method	POST			
Content-Type				
Parameters				
	Name	Туре	Required	Description
	openId	String	Yes	
	appld	String	Yes	
	keyTime	String	Yes	
	sign	String	Yes	
	orderCode	String	Yes	
	appSystem	Integer	no	1-IOS
				2-Android
				3-PC
				DEFAULT:2
				DEFAULT:2

Request Example	curl -X POST "https://{DOMAIN}/bm/v1/order/cancel" -H "accept: */*" -H "Content-Type: application/json" -d '{ "appld": "3ldw0k0OG5QGiGVlsnn8bAEFCwVxkrCm", "appSystem": 0, "keyTime": "1602847281;1602847881", "openId": "ylQb9Kz1WWaNnYhAHDaTBgdA0dhyUrn1", "orderCode": "2010161115561520446377", "sign": "h1D2EqiyxOatM+1sqVqEv03Nq3U="}'					
Response	Name	Туре	Required	Description		
	code	Integer	Yes			
	msg	String	Yes			
Response Example	"1	code": msg": " data":	success",			
Description						

## **Renew Order**

URL	https://{DOMAIN}/v1/order/renew					
Request Method	POST					
Content-Type						
Parameters	Name	Ту	/pe	Required	Description	on
	openId	Str	ing \	res .		
	appld	Str	ing	res .		
	keyTime	Str	ing \	res .		
	sign	Str	ing \	res .		
	orderCo	ode Str	ing \	r'es		
	appSyst	em Inte	eger r	10	1-IOS	
					2-Androi	.d
					3-PC	
					DEFAULT:	:2
Request Example	curl -X POST "https://{DOMAIN}/bm/v1/order/renew" -H "accept: /" -H "Content-Type: application/json" -d '{ "appld": "3ldw0k00G5QGiGVIsnn8l AEFCwVxkrCm", "appSystem": 0, "keyTime": "1602847281;1602847881" "openId": "ylQb9Kz1WWaNnYhAHDaTBgdA0dhyUrn1", "orderCode": "2010161115561520446377", "sign": "h1D2EqiyxOatM+1sqVqEv03Nq3U="}					
Response	Name	Туре	Dea	uired [	Description	
	code	Integer		uneu L	Jescription	
	msg	String	Yes			
	data	String	No	OI	rderCode	
	1	3				

Response Example	{     "msg": "success",     "code": 20000,     "data": "2010161115561520446377" }
Description	