

User Guide for iAM Smart Pilot Sandbox

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1. Account Registration

At the present pilot stage, account registration is by invitation only. Invitations will be sent out to designated sectors through supporting organisations of the iAM Smart Pilot Sandbox Programme.

- 1.1 After an invitee confirm his/her interest to join the programme, he/she will receive the following account activation email.

The user can then click the “Activate Your Account” link in the email to activate his/her account. Before the user activates his/her account, he/she should read carefully the terms and conditions by clicking the “Terms and Conditions” link. If the user does not agree to be bound by the terms and conditions, he/she should not activate his/her account.

Dear XXX,

Thank you for signing up iAM Smart Pilot Sandbox Programme. Your account is now ready for activation. Please click the following activation link to activate your account and set up your initial password:

[Activate Your Account](#)

1. Activate Your Account

Before you activate your account, please read carefully the [Terms and Conditions](#). If you do not agree to be bound by the terms and conditions, please DO NOT click the activation link.

After you activate your account, you can login iAM Smart Pilot Sandbox Programme at <https://iamsmart.cyberport.hk> with your email address and your password.

Should you have any questions, please contact us at iamsmart@cyberport.hk.

Best Regards,
iAM Smart Pilot Sandbox Team

1.2 User can then assign and confirm password to complete the account registration.

iAM Smart Pilot Sandbox

[Home](#)[Things to Know](#)[Use Cases](#)[APIs](#)[Helpdesk](#)[FAQ](#)[About](#)[Sign in](#)

Create your account

Password

Password

1. Input password

Confirm password

Confirm password

2. Confirm password

Sign up

3. Sign up

2. Login

iAM Smart Pilot Sandbox URL: <https://iamsmart.cyberport.hk/>

- 2.1. User login can be made with registered email address and password. For details of account registration, please refer to section 1 [“Account Registration”](#).

Sign in

Sign in with your username and password

If you are an Administrator you must sign in [here](#).

Email

Email

1. Input registered email address

Password

Password

2. Input account password

☐ Remember me on this computer

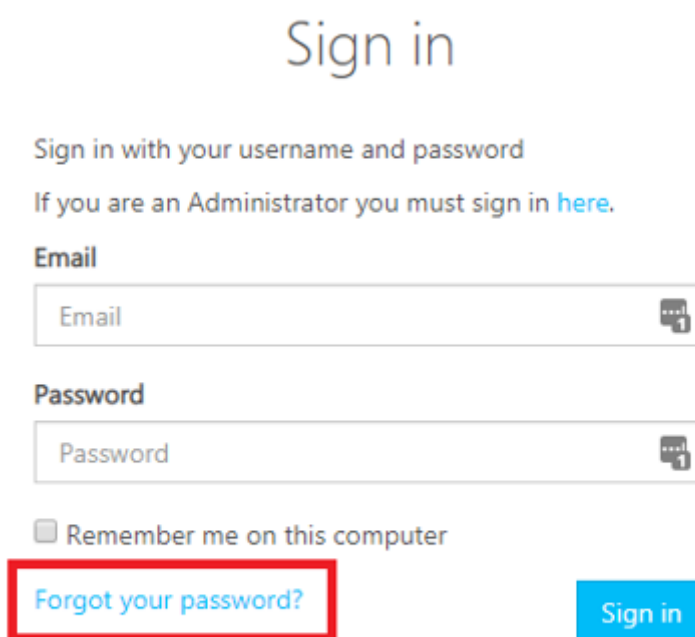
[Forgot your password?](#)

Sign in

3. Click on "Sign in" button

2.2. Reset password can be requested if user forgets the account password. An email with reset password hyperlink will be delivered to the user's registered email address upon request.

- Click "Forgot your password"



Sign in

Sign in with your username and password

If you are an Administrator you must sign in [here](#).

Email

Email

Password

Password

☐ Remember me on this computer

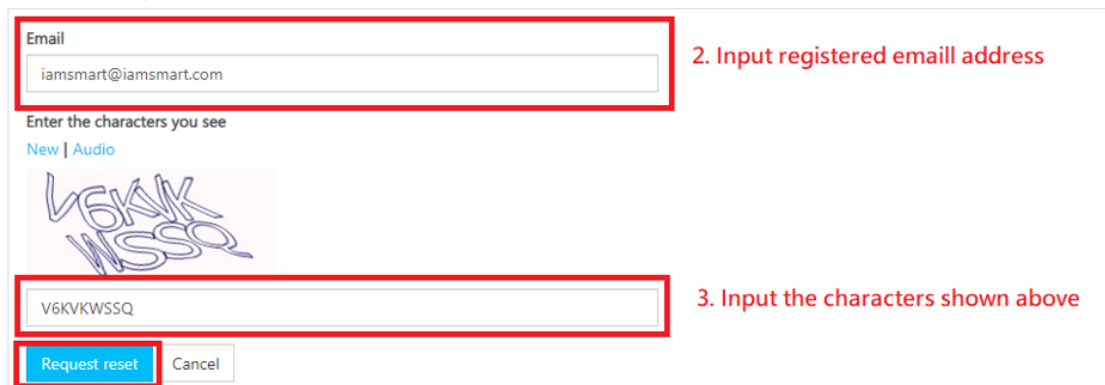
[Forgot your password?](#)

Sign in

1. Click on "Forgot your password" button

- Input registered email address and submit password reset request

Request password reset



Email

iamsmart@iamsmart.com

Enter the characters you see

New | Audio

V6KVK WSSQ

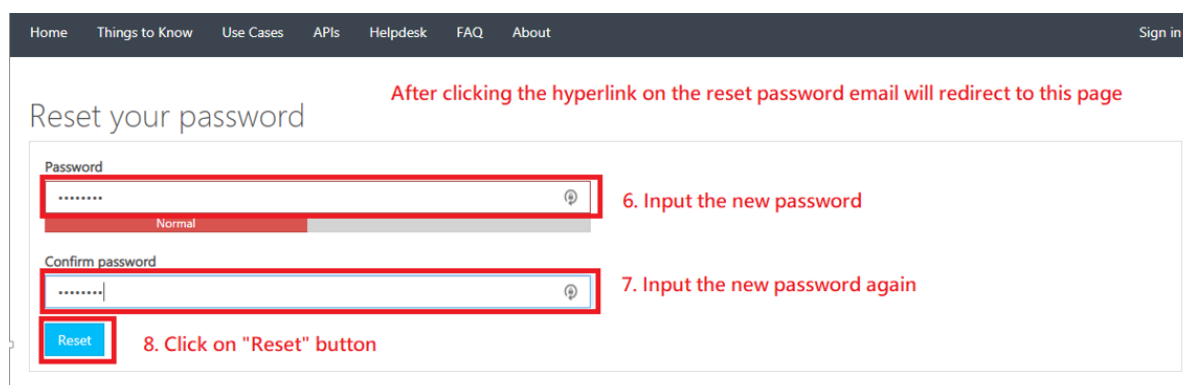
V6KVKWSSQ

Request reset

Cancel

4. Click on "Request reset" button

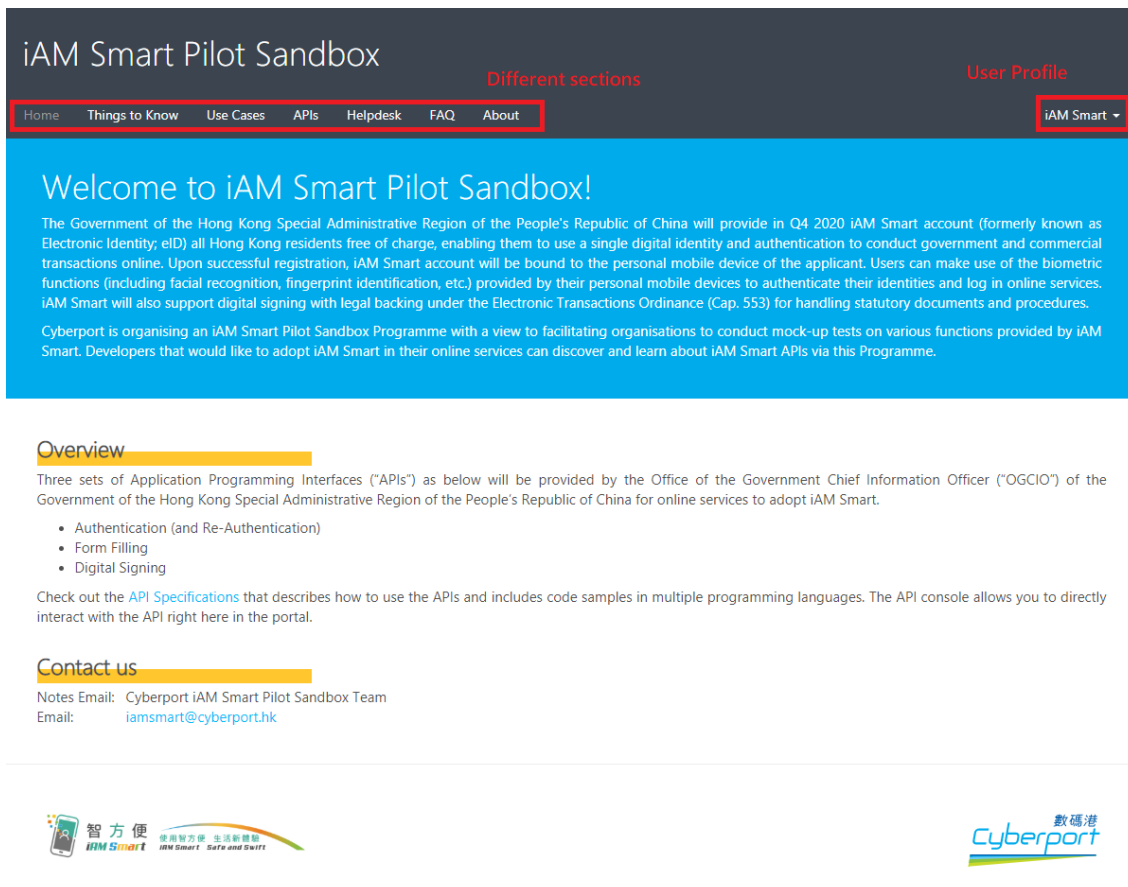
- 2.3. After receiving the reset password email, user can click the hyperlink inside to reset the password.

A screenshot of the Cyberport website's password reset page. The page has a dark blue header with navigation links: Home, Things to Know, Use Cases, APIs, Helpdesk, FAQ, About, and a Sign in link. The main content area is white and titled "Reset your password". A red text message states: "After clicking the hyperlink on the reset password email will redirect to this page". Below this, there are two password input fields. The first field is labeled "Password" and has a red box around it with the instruction "6. Input the new password". The second field is labeled "Confirm password" and also has a red box around it with the instruction "7. Input the new password again". Below these fields is a blue "Reset" button with a red box around it and the instruction "8. Click on 'Reset' button".

- 2.4. If user forgets the registered email address, please contact our customer service at iamsmart@cyberport.hk.

3. Home Page

The iAM Smart Pilot Sandbox consists of information about the iAM Smart Platform, iAM Smart APIs and iAM Smart Pilot Sandbox Programme under seven sections as below.

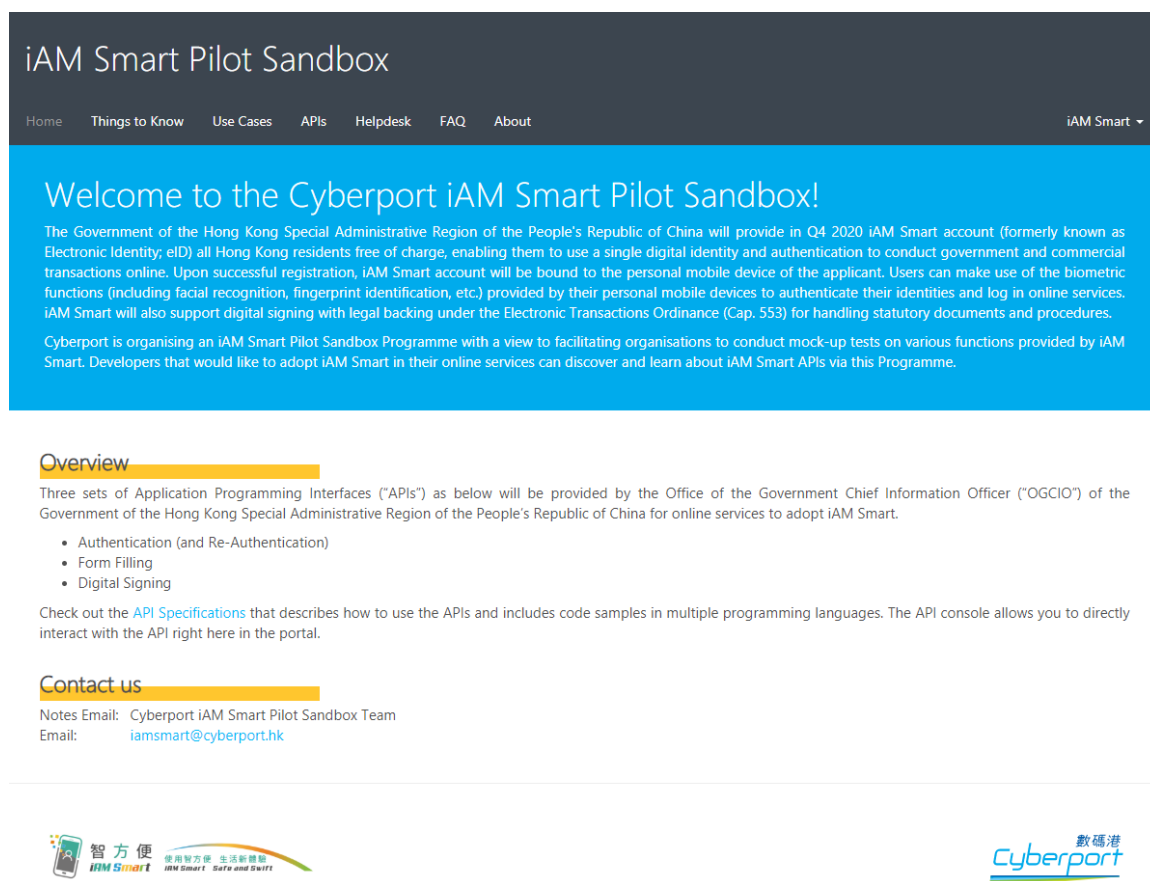


The screenshot shows the iAM Smart Pilot Sandbox Home Page. The header includes the title "iAM Smart Pilot Sandbox", navigation links (Home, Things to Know, Use Cases, APIs, Helpdesk, FAQ, About), and a "User Profile" section with a dropdown menu showing "iAM Smart". The main content area features a welcome message and a detailed description of the iAM Smart account and the Pilot Sandbox Programme. The footer includes an "Overview" section, a "Contact us" section, and logos for iAM Smart and Cyberport.

Index	Sections	Descriptions
3.1	Home	Landing page of iAM Smart Pilot Sandbox
3.2	Things to Know	Something you should know about the iAM Smart Platform and iAM Smart APIs before trying out the APIs
3.3	Use Cases	Use cases for using functions of iAM Smart
3.4	APIs	iAM Smart API Specification and mockup trial
3.5	Helpdesk	Online helpdesk for iAM Smart Pilot Sandbox
3.6	FAQ	Frequently Asked Questions on iAM Smart APIs
3.7	About	Information of iAM Smart Pilot Sandbox Programme

3.1 Home

This page consists of background information of iAM Smart and iAM Smart Pilot Sandbox Programme.



The screenshot shows the homepage of the iAM Smart Pilot Sandbox. The header features the title "iAM Smart Pilot Sandbox" and a navigation menu with links: Home, Things to Know, Use Cases, APIs, Helpdesk, FAQ, and About. A user profile "iAM Smart" is visible in the top right. The main content area has a blue background with the heading "Welcome to the Cyberport iAM Smart Pilot Sandbox!". Below this, a paragraph explains that the Government of the Hong Kong Special Administrative Region will provide iAM Smart accounts in Q4 2020, free of charge, for use in government and commercial transactions. It mentions biometric functions like facial recognition and fingerprint identification. Another paragraph states that Cyberport is organizing a Pilot Sandbox Programme for organizations to test iAM Smart functions. Below the main content, there are sections for "Overview" and "Contact us". The "Overview" section lists three sets of APIs: Authentication (and Re-Authentication), Form Filling, and Digital Signing. The "Contact us" section provides an email address: iamsmart@cyberport.hk. At the bottom, there are logos for "iAM Smart" (智方便) and "Cyberport" (數碼港).

iAM Smart Pilot Sandbox

Home Things to Know Use Cases APIs Helpdesk FAQ About iAM Smart

Welcome to the Cyberport iAM Smart Pilot Sandbox!

The Government of the Hong Kong Special Administrative Region of the People's Republic of China will provide in Q4 2020 iAM Smart account (formerly known as Electronic Identity; eID) all Hong Kong residents free of charge, enabling them to use a single digital identity and authentication to conduct government and commercial transactions online. Upon successful registration, iAM Smart account will be bound to the personal mobile device of the applicant. Users can make use of the biometric functions (including facial recognition, fingerprint identification, etc.) provided by their personal mobile devices to authenticate their identities and log in online services. iAM Smart will also support digital signing with legal backing under the Electronic Transactions Ordinance (Cap. 553) for handling statutory documents and procedures.

Cyberport is organising an iAM Smart Pilot Sandbox Programme with a view to facilitating organisations to conduct mock-up tests on various functions provided by iAM Smart. Developers that would like to adopt iAM Smart in their online services can discover and learn about iAM Smart APIs via this Programme.

Overview


Three sets of Application Programming Interfaces ("APIs") as below will be provided by the Office of the Government Chief Information Officer ("OGCIO") of the Government of the Hong Kong Special Administrative Region of the People's Republic of China for online services to adopt iAM Smart.


- Authentication (and Re-Authentication)
- Form Filling
- Digital Signing

Check out the [API Specifications](#) that describes how to use the APIs and includes code samples in multiple programming languages. The API console allows you to directly interact with the API right here in the portal.

Contact us

Notes Email: Cyberport iAM Smart Pilot Sandbox Team
Email: iamsmart@cyberport.hk

 智方便 *iAM Smart* 善用智方便 生活新體驗 *iAM Smart Safe and Swift*

 數碼港 *Cyberport*

3.2 Things to Know

This page consists of essential technical information of iAM Smart Platform and iAM Smart APIs. It also includes the predefined parameters for iAM Smart APIs mockup trial such as *Access Token* and *Authorisation Scope*. Developers are recommended to read this page before going into the details of the iAM Smart APIs and their mockup trial.

iAM Smart Pilot Sandbox

Home Things to Know Use Cases APIs Helpdesk FAQ About iAM Smart

iAM Smart Account

There will be two types of iAM Smart accounts coming with different functions, being able to be registered via different channels, i.e. online registration (without signature functions) or in-person registration (with signature functions). An iAM Smart e-Cert will be given to an iAM Smart account when its digital signing function is enabled.

An iAM Smart account can only be bound to one device at one time. The identification of an iAM Smart account to online service is represented in the form of a unique online service-specific identifier called "Tokenised ID". Different online services will have different values of Tokenised ID for the same iAM Smart user. It helps to preserve the privacy of the iAM Smart user since different online services cannot correlate the same iAM Smart user to track his/her digital footprint by comparing the Tokenised ID they possessed.

iAM Smart Profile

Each iAM Smart account has two profiles. The first profile is the iAM Smart Profile which contains major card face data ("CFD") on the Hong Kong Identity Card ("HKIC"), namely the HKIC number, English name, Chinese name, date of birth, and sex. For iAM Smart account without digital signing function, CFD data of the iAM Smart user will be captured using Optical Character Recognition ("OCR") of his/her HKIC photo taking by the iAM Smart Mobile App. For iAM Smart account with digital signing function enabled, CFD data of the iAM Smart user will be read from the HKIC chip using card reader on a registration kiosk or registration tablet. The CFD will then be checked against information of the same user stored in Immigration Department ("ImmD"). After checking with positive results, these data, except Chinese name, will be marked as "verified". With iAM Smart user's authorisation, these verified data in the iAM Smart Profile can be provided to online services for user account registration purpose.

The verified data in the iAM Smart Profile will be regularly checked with records in the ImmD. When changes are found during regular check, the iAM Smart user will be asked to re-register his/her iAM Smart account in order to update the data in the iAM Smart Profile. The last modification date ("lastModifiedDate" provided in the POST response of API "Request accessToken & Tokenised ID") of his/her iAM Smart Profile will also be updated to the current date upon completion of re-registration in this situation. Similarly, the last modification date of the iAM Smart Profile will also be updated when the iAM Smart user registers the iAM Smart account again after de-registration.

e-ME Profile

The other profile of an iAM Smart account is e-ME profile in which iAM Smart user can input his/her personal information for online form pre-filling. The e-ME profile is initially empty and disabled. iAM Smart user can enable the profile optionally by copying data from the iAM Smart Profile and entering other personal information such as mobile number, residential address, marital status, etc. on a voluntary basis. When online service requests information from the e-ME profile for form pre-filling, the user can give authorisation on an itemised basis through the iAM Smart Mobile App.

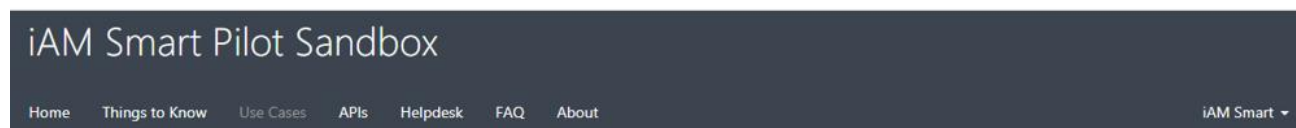
Authorisation Scope and Access Token

iAM Smart System makes reference to the OAuth 2.0 authentication framework to enable online service to gain access to iAM Smart APIs, with iAM Smart user's authorisation using iAM Smart Mobile App.

[Determine Authorisation Scope](#)

3.3 Use Cases

This page consists of the high-level workflow for online services to integrate with iAM Smart Platform to use the iAM Smart functions. Workflow of the use cases in accordance with the three types of iAM Smart APIs: Authentication, Form Pre-filling and Digital Signing, are illustrated under the hyperlinks at the bottom of the page.



Use Cases

The following steps illustrate the high-level workflow for online service to connect to iAM Smart System and provide different services for iAM Smart user.

1. A user initiates request for using iAM Smart at online service application.
2. Online service redirects the user to a webpage hosted by iAM Smart System. QR code image will be shown on the webpage.
3. User completes the authentication by using iAM Smart Mobile App and then iAM Smart System redirects user back to online service application along with an authorisation code.
4. Online service uses the authorisation code to exchange access token and tokenised ID of the user from iAM Smart System.
5. After obtaining access token and tokenised ID of the user, online service can perform the following functions:
 - a. Authentication – Use the tokenised ID to perform user matching at online service local database. In case of tokenised ID cannot be found at online service local database (e.g. User first time logon to online service by iAM Smart), online service can request iAM Smart Profile information (e.g. HKIC number) for HKIC number) for link up with the same person's account in the online service or to create new online service account according to their business need. The tokenised ID shall be stored in online service user database to facilitate future login. The requested iAM Smart user profile information will be passed to online service upon user consent. The iAM Smart user profile consists of Hong Kong Identity Card (HKIC) number, English Name, Chinese Name, date of birth and gender of the iAM Smart user. These information will be verified with records stored at Immigration Department (ImmD) during registration. Regular check with ImmD will also be conducted.
 - b. Form pre-filling – Submit the access token, tokenised ID and e-ME request to iAM Smart System. After user providing consent at iAM Smart Mobile App, the iAM Smart System will pass e-ME data to online service. User can opt to copy profile information to e-ME or leave it blank. While other e-ME data fields are input and updated by user on a voluntary basis.
 - c. Digital Signing – Submit the access token, tokenised ID and hash value of document to be signed (e.g. online form) to iAM Smart System. After user completing the signing process at iAM Smart Mobile App, iAM Smart System will pass the signed hash and user public key to online services.
 - d. Re-authentication – Submit the access token, tokenised ID and re-authentication request to iAM Smart System. After user performing authentication by using mobile device biometrics at iAM Smart Mobile App, iAM Smart System will pass the result (pass / fail) to online service.

- Click use case at the bottom of the page to view the workflow

Basically, there will be four scenarios as below for iAM Smart API use cases :

1. Online service Website and iAM Smart App in Different Mobile Devices
2. Online service Website and iAM Smart App in Same Mobile Device
3. Online service App and iAM Smart App in Different Mobile Devices
4. Online service App and iAM Smart App in Same Mobile Device

[Click on the use case to view the related workflow](#)

Use cases according to the three types of iAM Smart APIs are illustrated as below:

1. [Authentication \(and Re-Authentication\)](#)
2. [Form Pre-filling](#)
3. [Digital Signing](#)

- View the slide one-by-one using the direction arrows

iAM Smart Pilot Sandbox
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Workflow on use case is shown by slides

Authentication

Online Service Website and iAM Smart App in Different Mobile Devices

Go Back
Next

Assumption
User already registered in
Online Service with iAM Smart
Assumption
User already registered in
iAM Smart

Page Indicator

智方便 iAM Smart

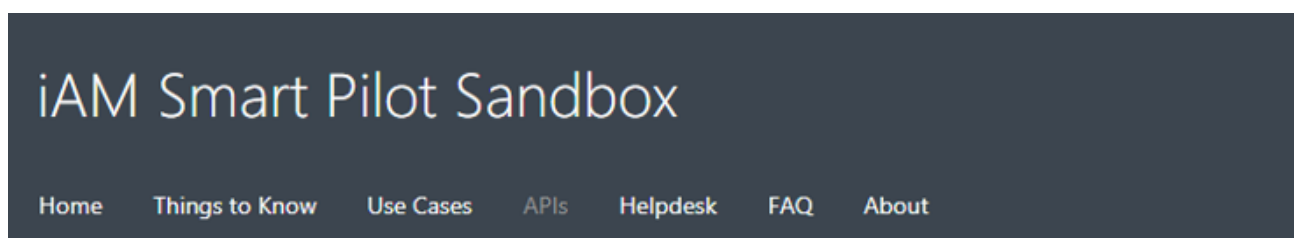
智方便 iAM Smart 使用智方便 生活新體驗 iAM Smart Safe and Swift

數碼港 Cyberport

3.4 APIs

This page consists of iAM Smart API specification and mockup trial. The three type of iAM Smart APIs: *Authentication*, *Form Pre-filling* and *Digital Signing*, are grouped under four API categories.

API Category
1.1 Authentication
1.2 Re-authentication
3. Form Pre-filling
4. Signing



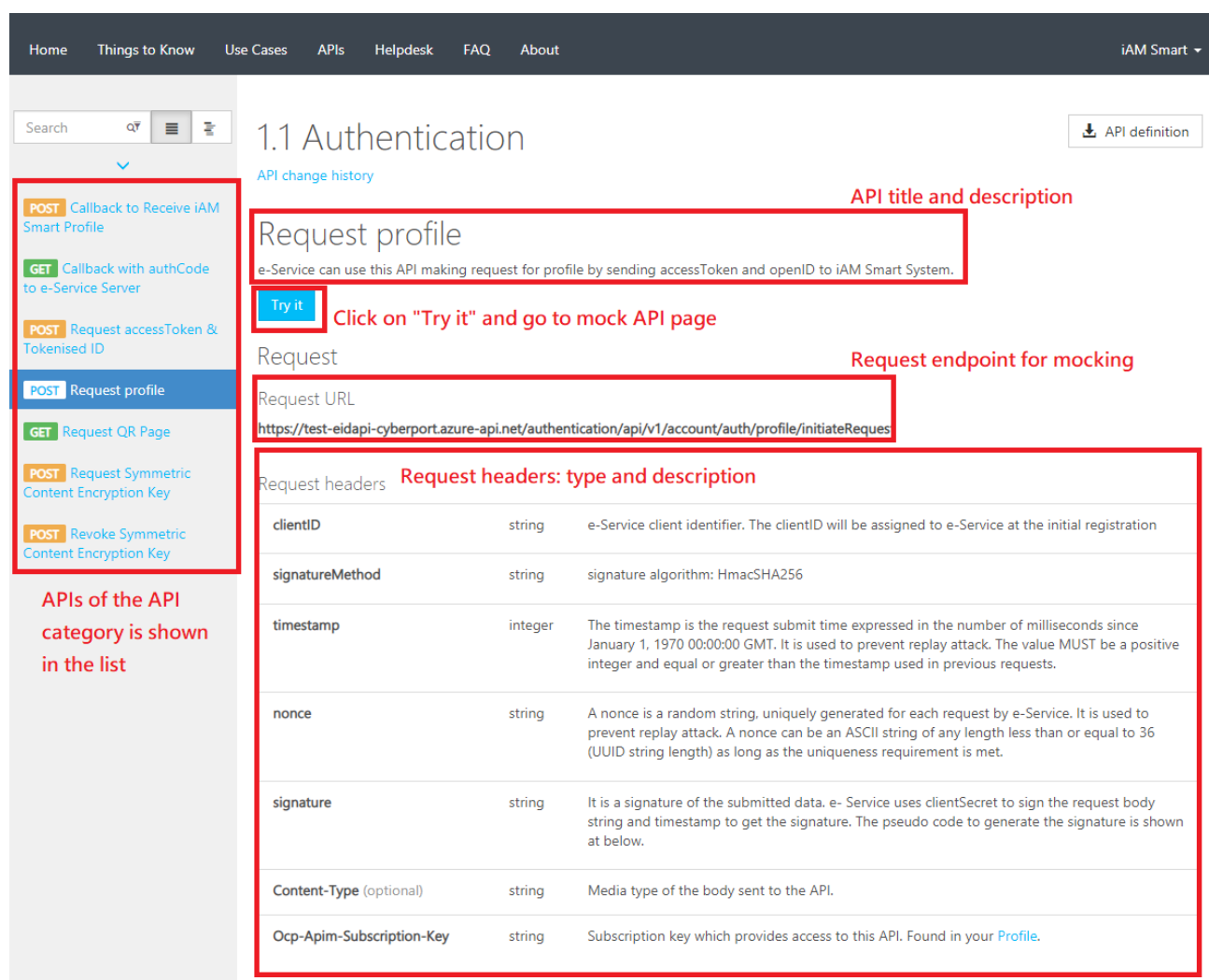
APIs

Click on the API category to view its related APIs

- 1.1 Authentication
- 1.2 Re-authentication
- 3. Form Pre-filling
- 4. Signing

3.4.1 API Specification

A list of APIs under the selected API category is shown in the left panel. Developer can click each API to view its specification, such as request headers, request body, responses, etc. Calling code skeleton samples are also provided at the bottom of the page. Developers may reference the codes in the programming language to be adopted for implementation.



The screenshot shows the Cyberport API Specification interface. The left sidebar lists various APIs, with 'Request profile' selected. The main content area displays the details for the 'Request profile' API, including its title, description, request URL, and a table of request headers.

API title and description

Click on "Try it" and go to mock API page

Request endpoint for mocking

Request headers: type and description

Header Name	Type	Description
clientID	string	e-Service client identifier. The clientID will be assigned to e-Service at the initial registration
signatureMethod	string	signature algorithm: HmacSHA256
timestamp	integer	The timestamp is the request submit time expressed in the number of milliseconds since January 1, 1970 00:00:00 GMT. It is used to prevent replay attack. The value MUST be a positive integer and equal or greater than the timestamp used in previous requests.
nonce	string	A nonce is a random string, uniquely generated for each request by e-Service. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.
signature	string	It is a signature of the submitted data. e-Service uses clientSecret to sign the request body string and timestamp to get the signature. The pseudo code to generate the signature is shown at below.
Content-Type (optional)	string	Media type of the body sent to the API.
Ocp-Apim-Subscription-Key	string	Subscription key which provides access to this API. Found in your Profile .

APIs of the API category is shown in the list

- Request body description and its sample in JSON format

Request body
Request body: type and description

businessID	String	businessID is a unique identifier for e-Service to differentiate different request. It can be ASCII string with length less than or equal to 36 chars.												
accessToken	String	accessToken value												
openID	String	Tokenised ID value												
source	String	Request initiator. The supported source values can be found in "Supported value at Source parameter" in the Things to Know section.												
redirectURI	String	callback URI.												
state	String	If state parameter is presented in the request message, the same state value will be returned to e-Service during callback. It is used to prevent the CSRF attack. The value of state is defined by e-Service and it should be a secure random value. It can be an ASCII string of any length less than or equal to 36 (UUID string length).												
profileFields	Array	Specify the profile fields to be requested. The available profileFields are as follows: <table> <thead> <tr> <th>profileFields</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>idNo</td> <td>ID number</td> </tr> <tr> <td>enName</td> <td>English name</td> </tr> <tr> <td>chName</td> <td>Chinese name</td> </tr> <tr> <td>birthDate</td> <td>Date of birth</td> </tr> <tr> <td>gender</td> <td>gender</td> </tr> </tbody> </table>	profileFields	Description	idNo	ID number	enName	English name	chName	Chinese name	birthDate	Date of birth	gender	gender
profileFields	Description													
idNo	ID number													
enName	English name													
chName	Chinese name													
birthDate	Date of birth													
gender	gender													

application/json
Sample
Schema

```

{
  "businessID": "bbb8aae57c104cda40c93843ad5e6db8",
  "accessToken": "d75f071180e842c28828097361a628fd",
  "openID": "8af3c091e7b14d9c837afb80fe80364",
  "source": "Android_Chrome",
  "redirectURI": "https://<rp_domain>/<rp_context>/<call_back_endpoint>",
  "state": "eddd527b6",
  "profileFields": [
    "idNo",
    "enName"
  ]
}

```

Request body sample in JSON format

- Application error codes in API response body

Responses

200 OK

Request successful

Business Exception:

D00000 - SUCCESS	Application error codes returned by iAM Smart
D20000 - unknown exception	
D20001 - parameter {s} is missing	
D20002 - empty parameter {s}	
D20003 - invalid parameter {s}	
D20004 - duplicated request	
D20005 - unsupported signature method	
D20006 - signature verification failed	
D20007 - unsupported source	

- Sample API response in JSON format

Representations

application/json	
<pre>{ "txID": "<T=938ffb193b4b4370b6c2584372c6a588>", "code": "D00000", "message": "SUCCESS", "content": { "authByQR": true } }</pre>	Response Sample in JSON format

- HTTP network error code

302 Moved Temporarily	The requested resource resides temporarily under a different URI.
400 Bad Request	The request could not be understood by the server due to malformed syntax.
401 Unauthorized	The request has not been applied because it lacks valid authentication credentials for the target resource.
403 Forbidden	The server understood the request but is refusing to fulfil it.
404 Not Found	The server has not found anything matching the Request-URI.
429 Too many requests	The user has sent too many requests in a given amount of time.
500 Internal Server Error	The server encountered an unexpected condition which prevented it from fulfilling the request.
503 Service Unavailable	The server is currently unable to handle the request due to a temporary overloading or maintenance of the server.

Network Error code with
description

- Calling code skeleton sample in different programming languages

Code samples

Curl
C#
Java
JavaScript
ObjC
PHP
Python
Ruby

```

@ECHO OFF

curl -v -X POST "https://test-eidapi-cyberport.azure-api.net/authentication/api/v1/account/auth/profile/initiateRequest"
-H "clientID: edae2e2529ff46228af1e4d18c8405d1"
-H "signatureMethod: HmacSHA256"
-H "timestamp: 1557048906183"
-H "nonce: e893647dc4204eb9b7b8eddd527b687c"
-H "signature: 5X42Y1B7MEd8Hm%2BonwjiQz9VCZkkrntADskXsYntavU%3D"
-H "Content-Type: application/json"
-H "Ocp-Apim-Subscription-Key: {subscription key}"

```

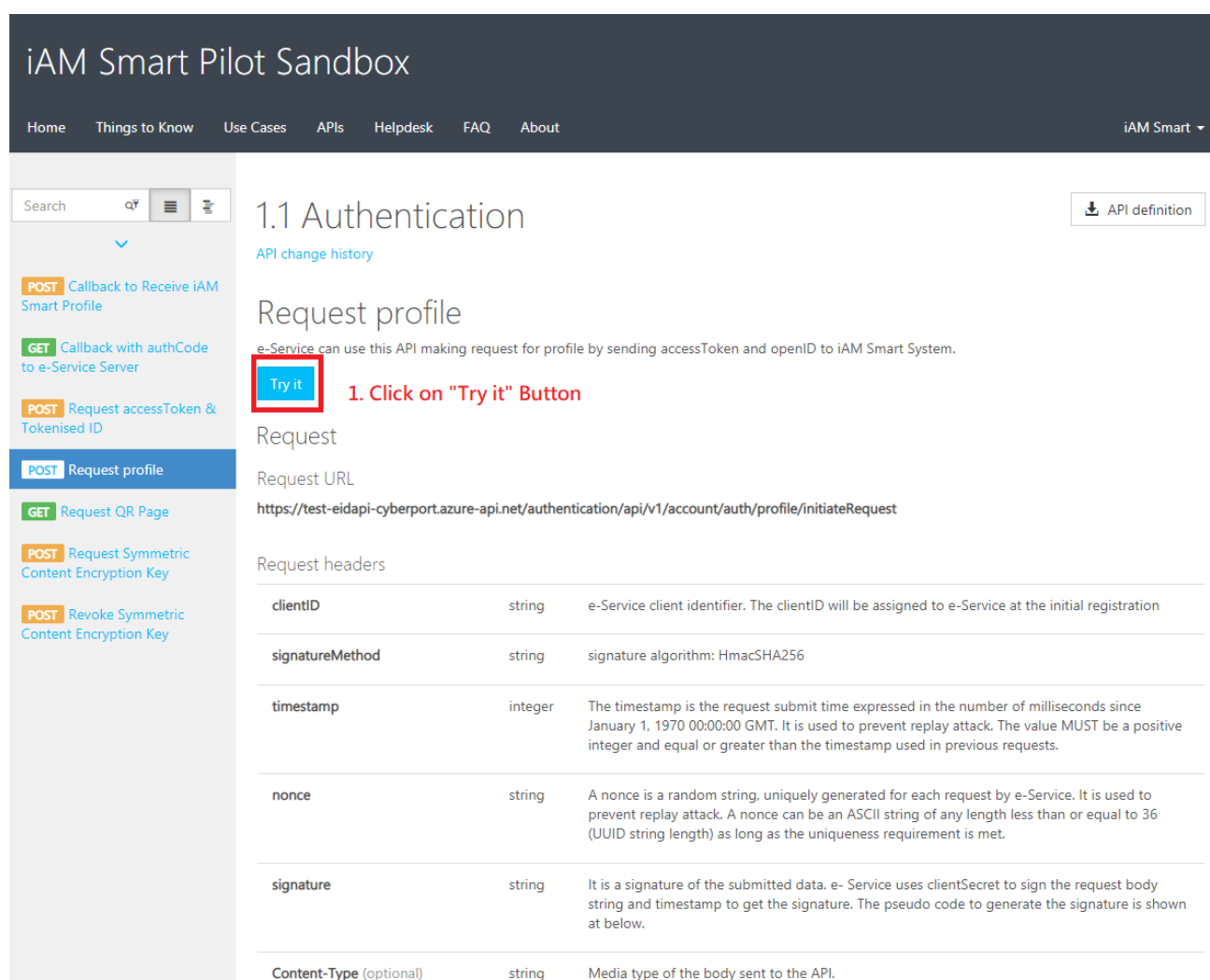
Language Code sample in multiple languages

3.4.2 API mockup

Developer can try out the API mockup by clicking the “Try it” button in the page.

Sample request header and body in JSON format are provided. Developer can modify the parameter values in the HTTP request body with the predefined values given in “Parameters for mock” under section “[Things to Know](#)” as inputs for mockup trial.

Developer can also view the complete HTTP request at the bottom of the page. Please note that the subscription key here is a token required for developer to execute API mockup which will not exist in real iAM Smart API.



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Search

1.1 Authentication [API definition](#)

[API change history](#)

Request profile

e-Service can use this API making request for profile by sending accessToken and openID to iAM Smart System.

Try it 1. Click on "Try it" Button

Request

Request URL

`https://test-eidapi-cyberport.azure-api.net/authentication/api/v1/account/auth/profile/initiateRequest`

Request headers

Header Name	Type	Description
clientID	string	e-Service client identifier. The clientID will be assigned to e-Service at the initial registration
signatureMethod	string	signature algorithm: HmacSHA256
timestamp	integer	The timestamp is the request submit time expressed in the number of milliseconds since January 1, 1970 00:00:00 GMT. It is used to prevent replay attack. The value MUST be a positive integer and equal or greater than the timestamp used in previous requests.
nonce	string	A nonce is a random string, uniquely generated for each request by e-Service. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.
signature	string	It is a signature of the submitted data. e- Service uses clientSecret to sign the request body string and timestamp to get the signature. The pseudo code to generate the signature is shown at below.
Content-Type (optional)	string	Media type of the body sent to the API.

- Pre-filled request headers

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Search

POST Callback to Receive iAM Smart Profile

GET Callback with authCode to e-Service Server

POST Request accessToken & Tokenised ID

POST Request profile

GET Request QR Page

POST Request Symmetric Content Encryption Key

POST Revoke Symmetric Content Encryption Key

1.1 Authentication

Request profile

e-Service can use this API making request for profile by sending accessToken and openID to iAM Smart System.

Query parameters

Add query parameters (no query parameters in this API)

+ Add parameter

Headers

clientID edae2e2529ff46228af1e

signatureMethod HmacSHA256

timestamp 1557048906183

nonce e893647dc4204eb9b7b1

signature 5X42Y1B7MEd8Mm%2B

Content-Type application/json

Ocp-Apim-Subscription-Key

+ Add header

Request headers are shown here and pre-filled, you may change the header

This field is just for mockup and will not exist in iAM Smart environment

Remove header

- Pre-filled request body with predefined parameters that is editable for mockup trial

```

1 {
2   "businessID": "bbb8aae57c104cda40c93843ad5e6db8",
3   "accessToken": "d75f071180e842c28828097361a628fd",
4   "openID": "8af3c091e7b14d9c637afb80fe80364",
5   "source": "Android_Chrome",
6   "redirectURI": "https://<rp_domain>/<rp_context>/<call_back_endpoint>",
7   "state": "eddd527b6",
8   "profileFields": [
9     "idNo",
10    "enName"
11  ]
12 }

```

Request body is in JSON and user may edit it here

- URL endpoint for API mockup and full HTTP request

The screenshot shows a web interface for creating an API mockup. It has two main sections: 'Request URL' and 'HTTP request'. The 'Request URL' section contains the text 'URL endpoint of the mockup API' and the URL 'https://test-eidapi-cyberport.azure-api.net/authentication/api/v1/account/auth/profile/initiateRequest'. The 'HTTP request' section contains a full HTTP POST request with headers and a JSON body. A red box highlights the 'Send' button at the bottom left of the 'HTTP request' section.

Request URL

URL endpoint of the mockup API

Request URL
https://test-eidapi-cyberport.azure-api.net/authentication/api/v1/account/auth/profile/initiateRequest

HTTP request

POST https://test-eidapi-cyberport.azure-api.net/authentication/api/v1/account/auth/profile/initiateRequest HTTP/1.1
Host: test-eidapi-cyberport.azure-api.net
clientID: edae2e259ff46228af1e4d18c8405d1
signatureMethod: HmacSHA256
timestamp: 1557048906183
nonce: e893647dc4204eb9b7b8eddd527b687c
signature: 5X42Y1B7HEd8Wm%28onwjiQz9VCZkkrntADskXsYntavU%3D
Content-Type: application/json
Ocp-Apim-Subscription-Key:

Full HTTP request auto generated from the above request headers and request body.

{
 "businessID": "bbb8aae57c104cd40c93843ad5e6db8",
 "accessToken": "d75f071180e842c28828097361a628fd",
 "openID": "8af3c091e7b14d9c837afbb80fe80364",
 "source": "Android_Chrome",
 "redirectURI": "https://<rp_domain>/<rp_context>/<call_back_endpoint>",
 "state": "eddd527b6",
 "profileFields": [
 "idNo",
 "enName"
]
}

Send

- Click “Send” button to execute the API mockup and get mockup response

The screenshot shows the response details after clicking the 'Send' button. It includes the response status (200 OK), response latency (638 ms), and the response content (JSON). A red box highlights the 'Send' button and the response content area.

Send

2. After checking the detail, click on "Send" to get mockup response

Response status

200 OK

Response latency

638 ms

Response content

3. Response with detail and response is returned

Date: Wed, 25 Mar 2020 06:56:24 GMT
Content-Length: 121
Content-Type: application/json

{
 "txID": "T=938ffb193b4b4370b6c2584372c6a588",
 "code": "D00000",
 "message": "SUCCESS",
 "content": {
 "authByQR": true
 }
}

3.4.3 Download API for mockup

Developer can also try the API mockup with preferred development tools by downloading the OpenAPI file of the iAM Smart APIs.

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iAM Smart ▾

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☰

☰

POST

Callback to Receive iAM Smart Profile

GET

Callback with authCode to e-Service Server

POST

Request accessToken & Tokenised ID

POST

Request profile

GET

Request QR Page

POST

Request Symmetric Content Encryption Key

POST

Revoke Symmetric Content Encryption Key

1.1 Authentication

API change history

Request profile

e-Service can use this API making request for profile by sending accessToken and openID to iAM Smart System.

Try it

Request

Request URL

https://test-eidapi-cyberport.azure-api.net/authentication/api/v1/account/auth/profile/initiateRequest

Request headers

clientId	string	e-Service client identifier. The clientId will be assigned to e-Service at the initial registration
signatureMethod	string	signature algorithm: HmacSHA256
timestamp	integer	The timestamp is the request submit time expressed in the number of milliseconds since January 1, 1970 00:00:00 GMT. It is used to prevent replay attack. The value MUST be a positive integer and equal or greater than the timestamp used in previous requests.
nonce	string	A nonce is a random string, uniquely generated for each request by e-Service. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.
signature	string	It is a signature of the submitted data. e- Service uses clientSecret to sign the request body string and timestamp to get the signature. The pseudo code to generate the signature is shown at below.

API definition

Open API 3 (YAML)

Open API 3 (JSON)

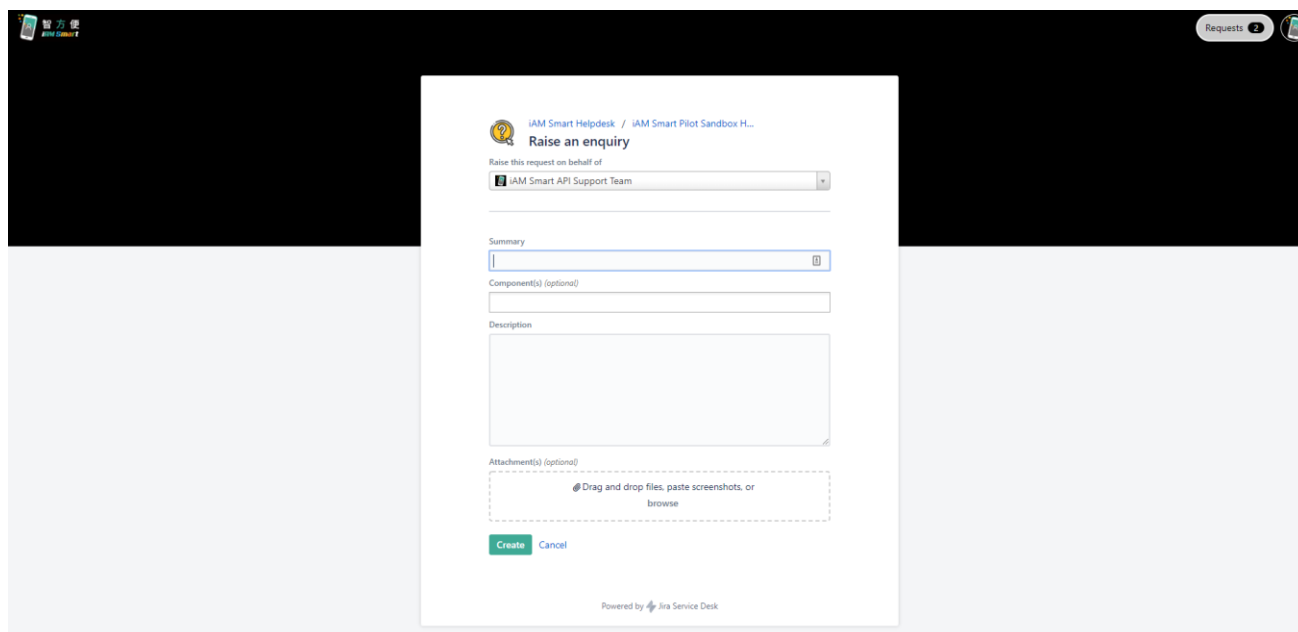
Open API 2 (JSON)

WADL

Select the version of OpenAPI and download it

3.5 Helpdesk

Developer can raise enquiries about the iAM Smart Pilot Sandbox. For details, please refer to the [User Guide for iAM Smart Pilot Sandbox Helpdesk](#).



The screenshot shows a web interface for raising an enquiry. At the top left, there is a logo with the text '智方便' and 'e-Service'. At the top right, there is a 'Requests' button with a counter showing '2'. The main form is titled 'iAM Smart Helpdesk / iAM Smart Pilot Sandbox H...' and 'Raise an enquiry'. Below the title, it says 'Raise this request on behalf of' followed by a dropdown menu showing 'iAM Smart API Support Team'. The form has several sections: 'Summary' with a text input field, 'Component(s) (optional)' with a text input field, 'Description' with a large text area, and 'Attachment(s) (optional)' with a dashed box containing the text 'Drag and drop files, paste screenshots, or browse'. At the bottom of the form, there are 'Create' and 'Cancel' buttons. At the very bottom, it says 'Powered by Jira Service Desk'.

3.6 FAQ

The page shows some frequently asked questions about iAM Smart APIs and will be updated regularly. Developer may search the page for answers before raising enquiries to the iAM Smart Pilot Sandbox Helpdesk.

iAM Smart Pilot Sandbox

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iAM Smart ▾

FAQ

APIs

What is Tokenised ID?

The identification of an iAM Smart account to online service is represented in the form of a unique online service-specific identifier called "Tokenised ID". Different online services will have different values of Tokenised ID for the same iAM Smart user. It helps to preserve the privacy of the iAM Smart user since different online services cannot correlate the same iAM Smart user to track his/her digital footprint by comparing the Tokenised ID they possessed.

What is Authorisation code?

iAM Smart System will return an authorisation code to online service after iAM Smart user authorising the request making by online service (e.g. authentication). online service can use authorisation code to exchange access token. Authorisation code can only be consumed for one time. Once it has been consumed or it cannot be consumed within 60 seconds after generation, then the authorisation code will no longer be valid.

What is the function of "signature" in API request parameter?

To ensure API request sending to iAM Smart System is authenticated and originated from online service. Individual API key (aka clientSecret) will be generated for each online service. online service is required to calculate keyed-hash message authentication code (HMAC-SHA256) for the API request body and include this signature in the API request when sending to iAM Smart System.

How to calculate the "signature" of API request?

Signature can be computed by using API key (aka clientSecret) to sign the concatenated string of clientID, signatureMethod, timestamp, nonce, and request body. Pseudo code for signature generation can be found at Section 6.2.1 of the API Specification.

Which timestamp should be used for computing the signature?

The timestamp is the request submit time expressed in the number of milliseconds since January 1, 1970 00:00:00 GMT. The value MUST be a positive integer and equal or

3.7 About

This page gives the general information about the iAM Smart Pilot Sandbox Programme.

iAM Smart Pilot Sandbox

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About the iAM Smart Pilot Sandbox Programme

To get better prepared for the adoption of iAM Smart by the commercial organisations in the future, Cyberport has initiated the iAM Smart Pilot Sandbox Programme (the "Programme") to facilitate interested organisations to conduct mock-up tests on various functions of the iAM Smart through its APIs provided by the Office of the Government Chief Information Officer ("OGCIO") of the Government of the Hong Kong Special Administrative Region of the People's Republic of China. The OGCI will provide technical assistance on APIs. Participants may also offer their comments and suggestions on iAM Smart through the Programme.

About the iAM Smart APIs

iAM Smart System will provide RESTful Application Programming Interfaces ("APIs") for registered online services to adopt iAM Smart.

OAuth 2.0 will be adopted for authentication and authorisation amongst iAM Smart users, online services and the iAM Smart platform. Online services adopting iAM Smart will be required to provide RESTful callback APIs to receive API responses from the iAM Smart platform.

Besides, as API data encryption will be used to protect the data transmission between online services and the iAM Smart System, online services will be required to request and renew the encryption key with iAM Smart platform using dedicated APIs accordingly.

About the iAM Smart Pilot Sandbox

Organisations that have completed registration with Cyberport will be provided with iAM Smart Pilot Sandbox accounts to conduct mock-up tests on various functions of the iAM Smart through this API console portal.

This portal will mock the APIs with unencrypted requests and responses while communication with encrypted requests and responses should be adopted in actual implementation.

Callback APIs are implemented and hosted by online service following the respective API request parameters defined. Different online services may have different design of their callback APIs. The following mock callback APIs are provided with sample value of request parameters for reference:

- Callback with authCode to online service Server
- Callback to Receive eID Profile
- Callback to Receive e-ME Information
- Callback to Receive Signing Result
- Callback to Receive Re-authentication Result
- Callback to Receive PDF Signing Result

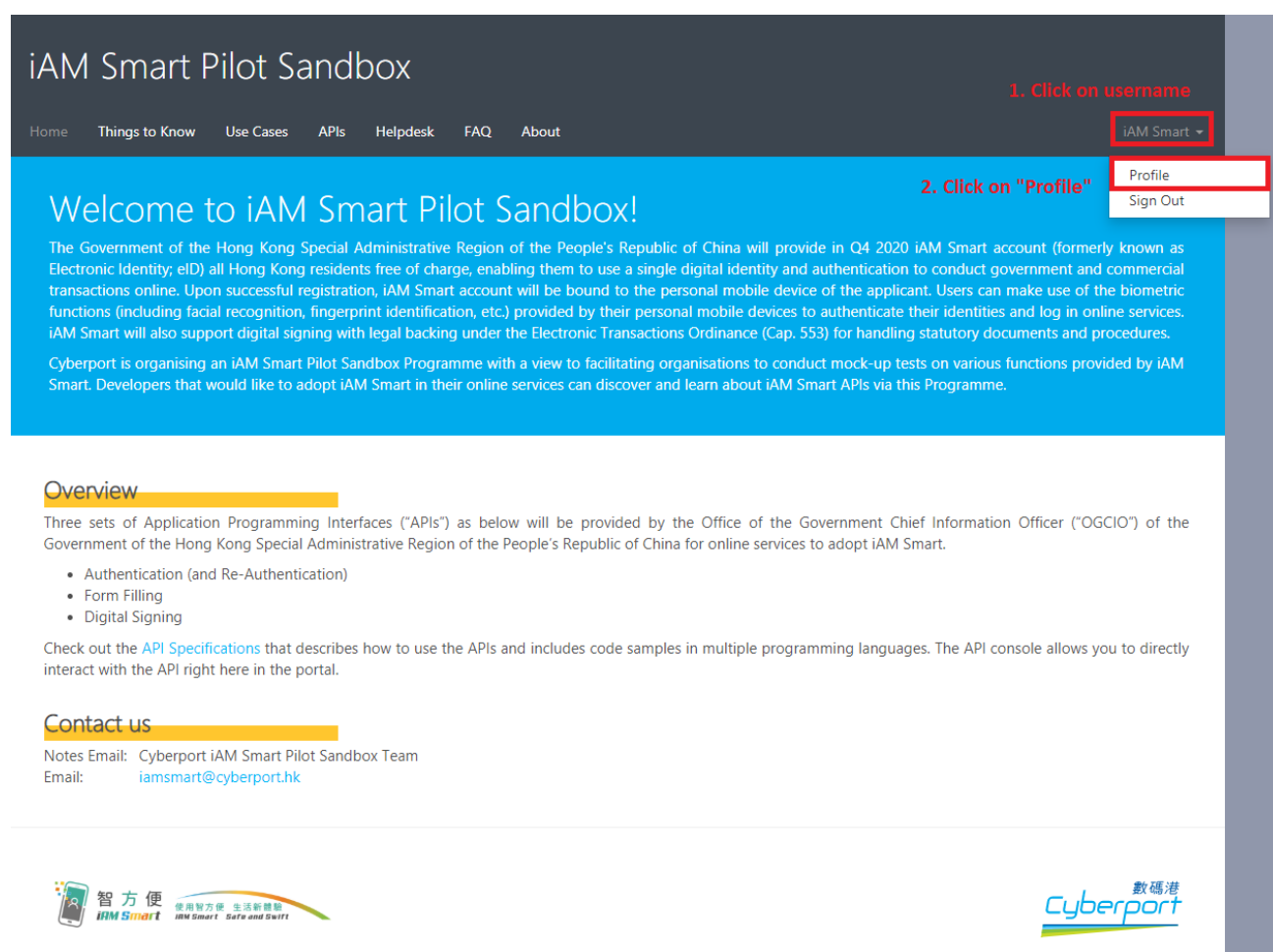
Please check out the [API Specifications](#) that describes how to use the APIs for details.

For a quick start on using the portal, you may refer to the <quick start guide>.

Enquiry

4. User Profile

User can view his/her user profile by clicking his/her username shown on the top right corner of the navigation bar.



The screenshot shows the iAM Smart Pilot Sandbox website. At the top right, the user's name 'iAM Smart' is displayed with a dropdown arrow. A red box highlights this name, with a red arrow pointing to it from the text '1. Click on username'. Below the name, a dropdown menu is open, showing 'Profile' and 'Sign Out'. A red box highlights the 'Profile' option, with a red arrow pointing to it from the text '2. Click on "Profile"'. The website content includes a welcome message, a description of the iAM Smart account, and a list of APIs provided.

iAM Smart Pilot Sandbox

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Welcome to iAM Smart Pilot Sandbox!

The Government of the Hong Kong Special Administrative Region of the People's Republic of China will provide in Q4 2020 iAM Smart account (formerly known as Electronic Identity; eID) all Hong Kong residents free of charge, enabling them to use a single digital identity and authentication to conduct government and commercial transactions online. Upon successful registration, iAM Smart account will be bound to the personal mobile device of the applicant. Users can make use of the biometric functions (including facial recognition, fingerprint identification, etc.) provided by their personal mobile devices to authenticate their identities and log in online services. iAM Smart will also support digital signing with legal backing under the Electronic Transactions Ordinance (Cap. 553) for handling statutory documents and procedures.

Cyberport is organising an iAM Smart Pilot Sandbox Programme with a view to facilitating organisations to conduct mock-up tests on various functions provided by iAM Smart. Developers that would like to adopt iAM Smart in their online services can discover and learn about iAM Smart APIs via this Programme.

Overview

Three sets of Application Programming Interfaces ("APIs") as below will be provided by the Office of the Government Chief Information Officer ("OGCIO") of the Government of the Hong Kong Special Administrative Region of the People's Republic of China for online services to adopt iAM Smart.

- Authentication (and Re-Authentication)
- Form Filling
- Digital Signing

Check out the [API Specifications](#) that describes how to use the APIs and includes code samples in multiple programming languages. The API console allows you to directly interact with the API right here in the portal.

Contact us

Notes Email: Cyberport iAM Smart Pilot Sandbox Team
Email: iamsmart@cyberport.hk

智方便 iAM Smart 使用智方便 生活新體驗 iAM Smart Safe and Swift

Cyberport 數碼港

- Information shown in user profile

Profile

Email @ogcio.gov.hk
First name iAM
Last name Smart

Change password Change account information

Your subscriptions

Analytics reports

Subscription details			Product	State	Action
Subscription name	Product Testing subscription		Testing	Active	Cancel
Primary key	xx	Show Regenerate			
Secondary key	xx	Show Regenerate			

4.1. Change Password

User can change his/her password in the user profile with the below steps.

- Click “Change password”

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1. Click on "Change password"

Profile

Email @ogcio.gov.hk
First name iAM
Last name Smart

Change password Change account information

Your subscriptions

Analytics reports

Subscription details			Product	State	Action
Subscription name	Product Testing subscription		Testing	Active	Cancel
Primary key	xx	Show Regenerate			
Secondary key	xx	Show Regenerate			

- Input current and new passwords

Change password


Password

New password

Normal

Confirm password

Enter the characters you see
[New](#) | [Audio](#)



2. Input your current password
3. Input your new password
4. Input your new password again
5. Input the characters shown above

6. Click on "Save profile" button

4.2. Notes

Information on user profile and subscriptions are created based on registration information provided for account creation. Although user can amend the account information and subscription status in his/her user profile, it is recommended to contact our customer service at iamsmart@cyberport.hk for changes. Meanwhile, it should be noted that Action “Cancel” cannot be made or else the subscription or the access right to view designated iAM Smart APIs will be lost.

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iAM Smart ▾

Profile

Email

@ogcio.gov.hk

First name

iAM

Last name

Smart

Change password

Change account information


Your subscriptions


Analytics reports

Subscription details		Product	State	Action
Subscription name	Product Testing subscription	Testing	Active	Cancel
Primary key	XXXXXXXXXXXXXXXXXXXXXXXXXXXX			Rename Show Regenerate
Secondary key	XXXXXXXXXXXXXXXXXXXXXXXXXXXX			Show Regenerate

!!!!!!

Please do not click on "Cancel"





~ End ~