

**KH PSD2 OPEN BANKING  
&  
THIRD PARTY PROVIDERS  
  
INTEGRATION GUIDE**

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## Introduction

Open Banking is the result of a regulation introduced by The Competition & Markets Authority. It will deliver a platform for greater competition and choice for customers. It will enable personal and business customers to share their data securely with banks and third parties, allowing them to compare products, initiate payments and request account information. The data is shared via Application Programming Interfaces (APIs).

If you are an authorised Third-Party Provider (TPP) by the FCA please use the following links to access our dedicated Open Banking portals.

### 1. Onboarding Process

#### a. Sandbox

You must be enrolled and registered on the Open Banking directory to participate securely within the Open Banking ecosystem.

We currently support Dynamic registration processes. Request details could be found in above open-id configuration well known endpoint. Please request your KH secure details by using contact details in part 8.

Well-known Endpoint -> <https://aspsp.kleinworthambros.com/oauth/v1/.well-known/openid-configuration>

Dynamic Registration -> <https://sandbox.kleinworthambros.com/auth/api/reg>

KH Secure access link -> <https://ebanking-test.kleinworthambros.com>

#### b. Production

You must be integrated with our sandbox environment before enrolling in production.

Well-known Endpoint -> <https://obapi.kleinworthambros.com/oauth/v1/.well-known/openid-configuration>

Dynamic Registration -> <https://openbanking.kleinworthambros.com/auth/api/reg>

KH Secure access link -> <https://ebanking.kleinworthambros.com>

## 2. Access Links

### a. Sandbox

This will allow you to perform some early integration and technical Proof-Of-Concept, without the need to request connectivity to the live APIs.

Token	<a href="https://sandbox.kleinworthambros.com/auth/api/token">https://sandbox.kleinworthambros.com/auth/api/token</a>
Assets	<a href="https://sandbox.kleinworthambros.com/accounts/open-banking/v3.1/aisp">https://sandbox.kleinworthambros.com/accounts/open-banking/v3.1/aisp</a>
Payments	<a href="https://sandbox.kleinworthambros.com/payments/open-banking/v3.1/pisp">https://sandbox.kleinworthambros.com/payments/open-banking/v3.1/pisp</a>
CBPII	<a href="https://sandbox.kleinworthambros.com/cbpii/open-banking/v3.1/cbpii">https://sandbox.kleinworthambros.com/cbpii/open-banking/v3.1/cbpii</a>
Authorization	<a href="https://aspsp.kleinworthambros.com/aspsp/authorize">https://aspsp.kleinworthambros.com/aspsp/authorize</a>

### b. Production

Token	<a href="https://openbanking.kleinworthambros.com/auth/api/token">https://openbanking.kleinworthambros.com/auth/api/token</a>
Assets	<a href="https://openbanking.kleinworthambros.com/accounts/open-banking/v3.1/aisp">https://openbanking.kleinworthambros.com/accounts/open-banking/v3.1/aisp</a>
Payments	<a href="https://openbanking.kleinworthambros.com/payments/open-banking/v3.1/pisp">https://openbanking.kleinworthambros.com/payments/open-banking/v3.1/pisp</a>
CBPII	<a href="https://openbanking.kleinworthambros.com/cbpii/open-banking/v3.1/cbpii">https://openbanking.kleinworthambros.com/cbpii/open-banking/v3.1/cbpii</a>
Authorization	<a href="https://obapi.kleinworthambros.com/aspsp/authorize">https://obapi.kleinworthambros.com/aspsp/authorize</a>

## 3. End Points

### a. Accounts and Transactions API

The Account and Transaction API is intended to give a third party, upon consent of the owning customer, access to product, service and transaction information relating to that account such that they may provide the customer with value-adding products or services.

i. Account-access-consents	POST /account-access-consents GET /account-access-consents/{ConsentId} DELETE /account-access-consents/{ConsentId}
ii. Accounts	GET /accounts GET /accounts/{AccountId}

iii. Balances	GET /accounts/{AccountId}/balances
iv. Transactions	GET /accounts/{AccountId}/transactions
v. Beneficiaries	GET /accounts/{AccountId}/beneficiaries
vi. Direct Debits	GET /accounts/{AccountId}/direct-debits
vii. Standing Orders	GET /accounts/{AccountId}/standing-orders
viii. Scheduled Payments	GET /accounts/{AccountId}/scheduled-payments

**b. Payments Initiation**

The payment initiation API enables any third party, registered as an approved Payment Initiation Service Provider (PISP) with Open Banking, to provision secure payments on behalf of our customers. The payment, once approved and authorised by the customer, is submitted for processing.

We currently support the submission of domestic and international payments from our customer’s UK personal and business current accounts.

<b>i. Domestic Payments</b>	POST /domestic-payment-consents GET /domestic-payment-consents/{ConsentId} GET /domestic-payment-consents/{ConsentId}/funds-confirmation POST /domestic-payments GET /domestic-payments/{DomesticPaymentId}
<b>ii. Domestic Scheduled Payments</b>	POST /domestic-scheduled-payment-consents GET /domestic-scheduled-payment-consents/{ConsentId} POST /domestic- scheduled-payments GET /domestic-scheduled-payments/{Domestic ScheduledPaymentId}
<b>iii. International Payments</b>	POST /international-payment-consents GET /international-payment-consents/{ConsentId} GET /international-payment-consents/{ConsentId}/funds-confirmation POST /international-payments GET /international-payments/{InternationalPaymentId}



Mjl0TDJWdUx5SXNJbk52Wm5SM1IYSmxYM0psWkdseVpXTjBYM1Z5YVhNaU9sc2lhSFlwY0hNNkx5OTNkM2N1YTJ4bGFXNTNiM0owYUdGdFlu  
SnZjeTVqYjIwdlpXNHZJbDBzSW5OdIpUjNZWEpsWDNKdmJHVnpJanBiSWtGSIUxQWYU3dpYjNkBlIXNBjMkYwYVc5dVgyTnZiWEJsEdWdWR  
GOWhkWFJvYjNkCGRibGZZMnhoYVcxeklqcDdJbUyXZEdodmNtbDBIVjIwWkNjNklrWkRRVWRDvWlJc0luSmxaMmx6ZEhKaGRHbHZibDIwWkNJ  
NklqRXhPVEkxTUNJc0luTjBZWFixY3IJNklrRmpkR2wyWINJc0ltRjFkR2h2Y21sellYUNBiMjv6SWpwyYmV5SnRaVzFpWlhKZmMzUmhkR1VpT2IKSFF  
pSXNJbkp2YkdWeklqcGJJa0ZKVTFBaUxDSIFTVvK5RSWwxOUxlc2liV1Z0WW1WeVgzTjBZWFJsSWpvaVNVVWIMQ0p5YjJ4bGN5STZXEUpCU1ZOU  
Ulpd2IVRWxUVUNKZGZTeDdJbTFsYldKbGNSOXpkR0YwWINJNklrNU1JaXdpY205c1pYTWIPbHNpUVVsVFVDSXNJbEJKVTFBaVhYMWWRmU3dpYzI  
5bWRIZGHjbVZmYkc5bmIxOTFjbWtpT2IKb2RIUndjem92TDNkM2R5NXJiR1ZwYm5kdmNuUm9ZVzFpY205ekxtTnZiUzltYVd4bFIXUnRhVzR2ZFhO  
bGNSOTFjR3h2WVdRdmJHOW5iM012UzBndFJuVjBkWEIOWlc0dWMzWm5JaXdpYjNkBlgzTjBZWFixY3IJNklrRmpkR2wyWINJc0ltOXlaMTlwWkN  
JNklqQXdNVFU0TURBd01ERKIVVz6UTBGQldDSXNJbT5WjE5dVIXMWxJam9pVTBjZ1MyeGxhVzUzYjNkMEIFaGhiV0p5YjJNNZ1FtRnVheUJNYVcx  
cGRHVmtJaXdpYjNkBlgyTnZibJJoWTNSeklqcGJleUp1WVcxblqb2IRblZ6YVc1bGMzTWIMQ0psYldGcGJDSTZJa3RJTfVODmJXMXWxbU5wWVd3d  
FZHVmhiVUjYkdWcGJuZHjblJvWVcxaWntOXpMbU52YINJc0luQm9iMjVsSWpvaU1ESXdOelU1TnpNd01EQWIMQ0owZVhCbElqb2IRblZ6YVc1  
bGMzTWImU3g3SW01aGJXVWIPaUpVWldOb2JtbGpZV3dpTENKbGJXRnBiQ0k2SWt0SUXVTnZiVzFsY21OcFIXd3RWR1ZoYIVCcmJHVnBibmR2Y2  
5Sb1IXMWljbtI6TG1OdmJTSXNJbkjvYj1bElqb2INREI3TnpVNU56TXdNREFpTENKMGVYQmxJam9pVkdWamFHNXBZMkZzSW4xZEXdSnZjbWRm  
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EF3TURBeFNGRIJME5CUVZndk1EQXhOVGd3TURBd01VaFJVWE5EUUVGWUxtcDNhM01pTENKdmNtZGZhbMryYzE5eVpYwNzhMlZrWDJWdV  
plQnZhVzUwSWpvaWFIUjBjSE02THk5clpYbHpkRzI5WIM1dmNHVnVZbUZ1YTJsdVozUmxjM1F1YjNkbkxuVnJMekF3TVRVNE1EQXdNREZJVZGe  
lEwRkXQzI5WlhadmEyVmtMekF3TVRVNE1EQXdNREZJVZGelEwRkXQzVxZDJ0eklpd2lJmJltZEhkaGNtVmZhbMryYzE5bGJtUndiMmx1ZENJNkl  
taDBkSEJ6T2k4dmEyVjVjM1J2Y21VdWlZQmxibUpoYm10cGJtZDBaWE4wTG05eVp5NTFheTh3TURFMU9EQXdNREF4U0ZGUmMwTkJRVmd2V0  
ZCR1dUUXdWRE5sT1hKbVEyUXhkRE0xWTFsSUxtcDNhM01pTENKemyWjBkMkZ5WIY5cWQydHpYM0psZG05clpXUmZaVzVrY0c5cGJuUWIPaU  
pvZEhSd2N6b3ZMMnRsZVhOMGlzSmxMbTI3Wlc1aVIXNXJhVzVzEdWemRDNXZjbWN1ZFdZdk1EQXhOVGd3TURBd01VaFJVWE5EUUVGWUwz  
SmxkbTlyWldRldGQkdXVFF3VkrObE9YSm1RMIF4ZERNNMvKxbElMbXAzYTNNaUxDSnpiMlowZDJGeVpWOXdiMnhwWTNsZmRYSnBJam9pYUh  
SMGNITZMeTkzZDNjdWEyeGxhVzUzYjNkMGFHRnRzBkp2Y3k1amlyMHZaVzR2SWI3aWMyOW1kSGRoY21WZmRHOXpYM1Z5YVNVJNklitaDBkS  
EJ6T2k4dmQzZDNMbXRzWldsdWQyOXlkr2hoYldKeWlZTXVZMjI0TDJWdUx5SXNJbk52Wm5SM1IYSmxYMjI1WDJKbGFHRnNabDI2Wmw5dmNt  
Y2IPaUpUUnICTGJHVnBibmR2Y25RZ1NHRnRzBkp2Y3ICQ1IXNXJRXhwYldSMFpXUWImUS5DVDN6Qj1fUzJHeHlXejhKWmVfWfptU2FuMIVSdEd  
iZ3N3eVRMbHBHS2VEa3JoU0FjU3piS3dKRC1Ea0NHQ3NkaDRyZfliOE5kM1FNbHA3cGNnc1VzQzZ4aUwzTW5RdkMzRUZ0X3dJQJITemRpNVg4T  
npjankyY003S0VTcDZhdIM1b1ZmMDNXTkZaM0s3ZF83U00zNFNwamtyaThUbnhTcjNOc292T2c5YmM1UWJURW56VXRleVdnTkhsNIZNSFhMR  
nBmZThVSnG0bzhAQ0ZMSnExdFU1aDRsZTI3WnU4MVVMZ2tLR3p3amdYMXk5V3RQRzJ5by14UmlQQTFiRmpDZkQwY1A5YVUwTGVPbIVXynPc  
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W5fZW5kcG9pbnRfYXV0aF9zaWduaW5nX2FsZyl6IJJTMjU2In0.FLafviRKiESj3bz-  
BnonAxwXG8EshwXFrP3tqtH2Roh8UjNm7fJOYp5mV6Jkhj73rcSxxdq1yOYx3r2iNkMDAK4TmCjGW9huOpfOIMWuRGp4Y2s381opDq0Q10tgZiK



Uad8P6Q6lkCfcxrRzTp3vfx\_I\_BOT3CjCwabEGN7jFouWDLtH0qGRq3Zo4M\_o8tLOEh7iVHe3\_raPtwxn3ypL7klpoigxUQu3iftpF6kjlvd\_V3Dn36y0C  
y1xvJ1GjSHs83kPky0WDKBaDF\_t8GRgye5wHIZ7aIEO7DPLpRxFklehHagMfWANxbTXHJw\_ftOLvPphPFO4hy-H6f56ianqnA

**e. API Response Codes**

200	OK
201	Created
204	No Content
400	Bad Request (Standard Error Codes to be found in R/W Data API Specification -v3.1)
401	Unauthorized
403	Forbidden
405	Method Not Allowed
406	Not Acceptable
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

**4. Test Data**

All the relevant test data / test clients will be provided to TPP's once they are onboarded to test the Sandbox.

- Test Clients
- Test Accounts
- Test Beneficiaries
- Remaining test data like transactions, statements...etc
- TPPs will need to activate KH secure application using test client credentials (see part 6).

**5. Activating KH Secure application for OTP**

TPP needs to activate KH secure application by using test client UserID and Password:

- Download the application:  
<https://play.google.com/store/apps/details?id=com.kleinworthambros.khsecure&hl=en>

<https://itunes.apple.com/gb/app/kh-secure/id1407876284>

- Install application
- Accept access requests
- Access eBanking test page:  
<https://ebanking-test.kleinworthambros.com>
- Log-in using credentials provided
- Follow instruction on screen and on the app (includes scanning 2 images)
- Create access PIN/Biometric security for the app
- App can be used now to generate OTP/PAC

## 6. Limited Functionality

- We do not support internal transfers until further notice

## 7. Contact Details

E – mail: [openbankingsupport@kleinworthambros.com](mailto:openbankingsupport@kleinworthambros.com)

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