

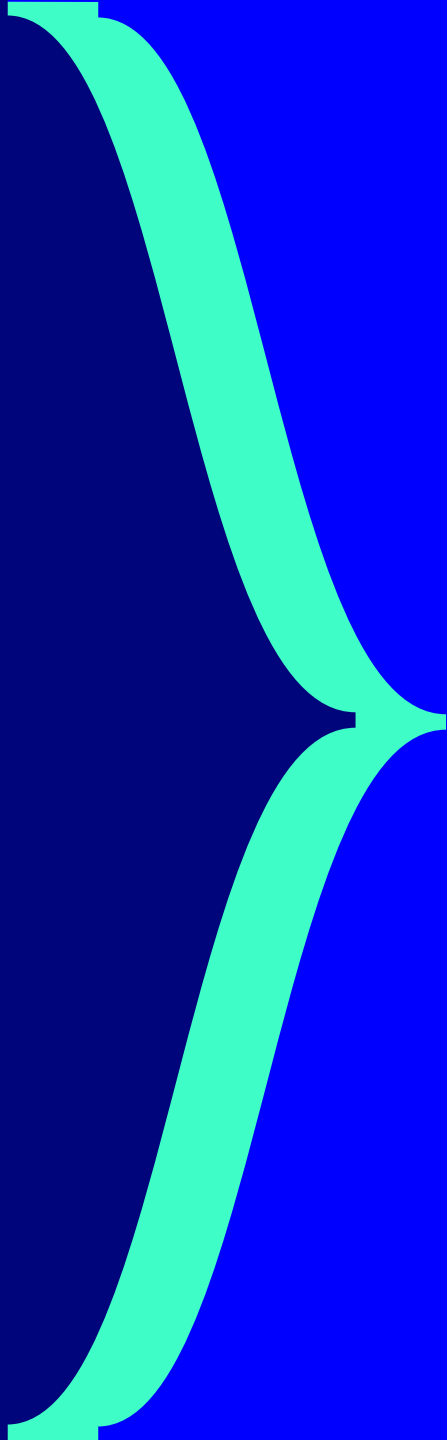
Open Banking Enhancements and What's New

October 2020



**Bank of
Ireland**

**Open Banking
Updates**



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Introduction & What's New

A summary of changes is below, and full details can be found on the Bank of Ireland Developer Portal at <https://developer.bankofireland.com>.

What's new	What this means for TPPs
New customer authentication flows including App to App redirection (October – NB. the launch date is published on the BOI OB Transparency Calendar)	Customers have been migrating to a new BOI 365 mobile app, which has a new authentication journey. The app will soon be available for Open Banking users to authenticate through App to App and Browser to App redirection. This replaces the KeyCode authentication app for 365 users, and should greatly simplify the journey and increase consent success rate. See slides 6 to 10 for details.
Consumer credit cards migrated to a new provider (UK only) (October)	Bank of Ireland UK consumer credit cards are no longer available for access through Open Banking. See slide 5 for details.
Standing Orders payments available (UK only) (July)	Standing Order PIS is live for UK 365 users.
Statements AIS available (UK only) (March)	Statements AIS is live for UK 365 users.
Future-dated domestic payments live on ROI (March)	Future-dated PIS is live for ROI 365 users. This is already available in the UK.
Changes regarding manual onboarding support, JWS message signing, additional FAQs on the portal	Please see the Developer Portal for further information on these changes. See slide 4 for details on JWS message signing and waiver 007.

Summary of functionality (as of October 2020)

ROI	For <u>365 online users</u> : AIS: account, balance and transaction. PIS: single immediate and future-dated. For <u>Business On Line (BOL) users</u> : AIS: account, balance and transaction. PIS: single immediate and future-dated.
UK	For <u>365 online users</u> : AIS: account, balance, transaction, beneficiaries, product, scheduled payments, standing orders, statements. PIS: single immediate and future-dated. For <u>BOL users</u> : AIS: account, balance and transaction. PIS: single immediate and future-dated.

Waiver 007 and JWS message signing

Bank of Ireland would like to advise TPPs of the changes made as part of Waiver 007. These changes have been implemented in the Production environment, with Sandbox changes due by November. TPPs will receive a 4xx error response if the expected request is not provided.

Key points to note:

1. All PISP requests and responses will include the b64 claim in the header. This value must be set to false.
2. A reminder that all requests and responses must be signed using only the PS256 algorithm.

The following table details the expected request/response:

Participant	Field	Expected Request / Response for Payments
TPP	b64	This will have the Boolean value false. This indicates that the message payload is not base64 url encoded. Refer to RFC 7797 - The "b64" header Parameter
	crit	Will include the value "b64" as part of the string array
	JWS Payload	Will not be b64 encoded
	JWS Signing Input	ASCII(BASE64URL(UTF8(JWS Protected Header)) '.') JWS Payload
	alg	PS256
Bank of Ireland	b64	This will have the Boolean value false. This indicates that the message payload is not base64 url encoded. Refer to RFC 7797 - The "b64" header Parameter
	crit	Will include the value "b64" as part of the string array
	JWS Payload	Will not be b64 encoded
	JWS Signing Input	ASCII(BASE64URL(UTF8(JWS Protected Header)) '.') JWS Payload
	alg	PS256

UK consumer credit card portfolio migration

Bank of Ireland UK-branded consumer credit cards, which were available to access via Open Banking APIs, have been migrated to a new provider – Jaja Finance Ltd. Jaja are the new issuer for Bank of Ireland UK credit cards, and are now fully responsible for all regulatory commitments, including access to accounts for PSD2.

Customers had been notified of the changes with several communications over the last few months.

TPPs should note:

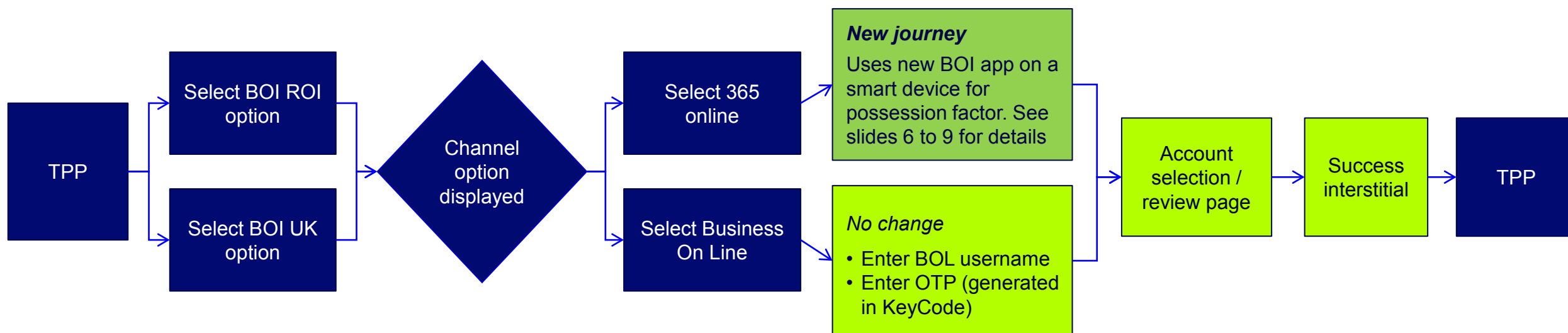
- Consumer credit cards will no longer be visible or available for new AIS consents
- If there is an existing consent for a consumer credit card, a 403 Forbidden error will be returned and account information will not be available. Any other accounts/products covered by that consent (i.e. current account, savings account) will continue as normal
- Upon the 90 day access refresh, it will not be possible to refresh access for the credit card account
- Bank of Ireland UK commercial credit cards are not impacted
- Consumer credit cards for ROI customers are not impacted
- Any questions regarding the provision of Open Banking access to the migrated card portfolio should be directed to Jaja Finance.

New authentication journeys including App to App

The bank has two online channels: 365 online (365), and Business On Line (BOL) – a dedicated business channel. 365 customers have been migrating to a new mobile app which offers enhanced services and supports a possession authentication factor for mobile app users and browser / desktop users. The Open Banking authentication journey for 365 users is changing to match the new 365 experience. The BOL authentication journey is not changing.

There are NO changes for TPPs. There are no authorisation URL or other changes, and TPPs do not have to do anything for their customers to benefit from the new journeys. There have been significant communications and efforts to get customers to update to and register the new mobile app.

The new journey for 365 users means they no longer need the separate KeyCode authentication app, and we are confident that this will greatly enhance the customer experience and simplify the Open Banking journey.

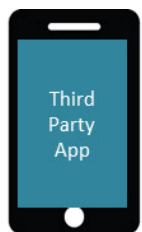


Useful information

As before, prior to redirection to the bank's site, it must be ensured that the customer has chosen the right bank entity (BOI ROI or UK) and the bank channel (365 or BOL) to authenticate and authorise the request. Auth URLs and other details are on slide 8. This schematic is a basic interpretation of the point. We would leave it to the TPPs discretion to construct the journey as they deem fit.

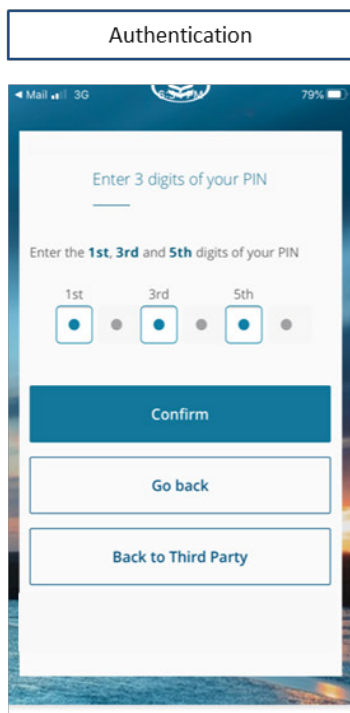
App to App AIS

TPP Domain



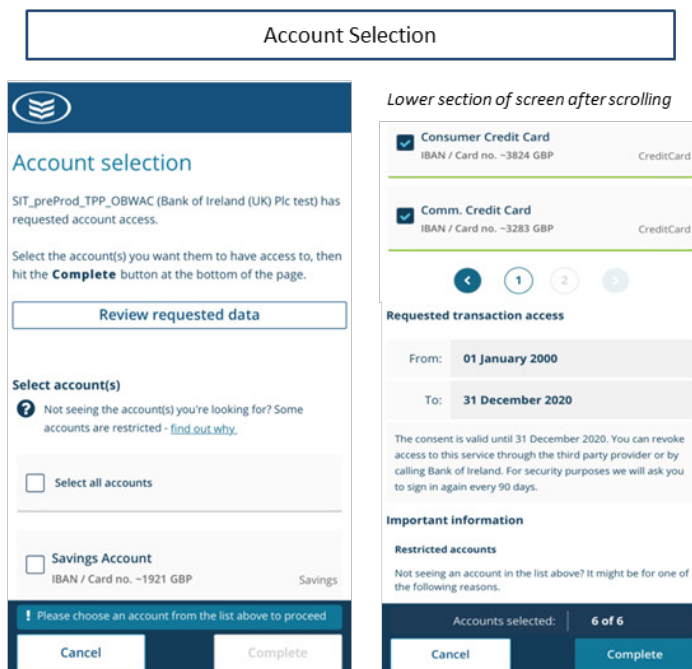
ASPP Domain

Authentication



PSU authenticates by inputting 3 digits from their existing 6 digit 365 PIN. A hidden push notification supports device verification for a possession factor.

Account Selection



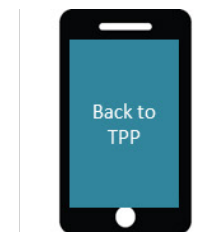
Lower section of screen after scrolling

'Sticky' call to action (CTA) bar means PSUs can click to continue without the need to scroll or review details.

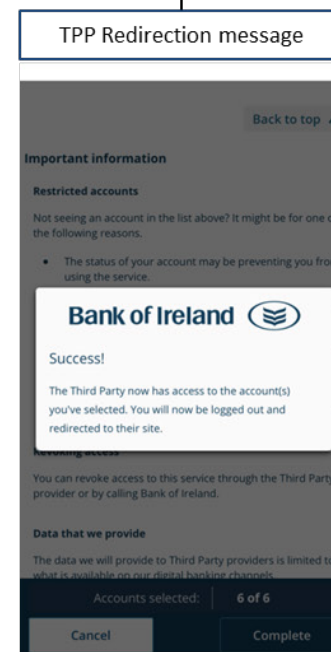
Potential 2 click journey: Tapping 'Select all' and 'Complete'.

Supporting information, such as data clusters, are hidden by default, but available if wanted.

This format is used for all AIS and PIS journeys.



TPP Redirection message



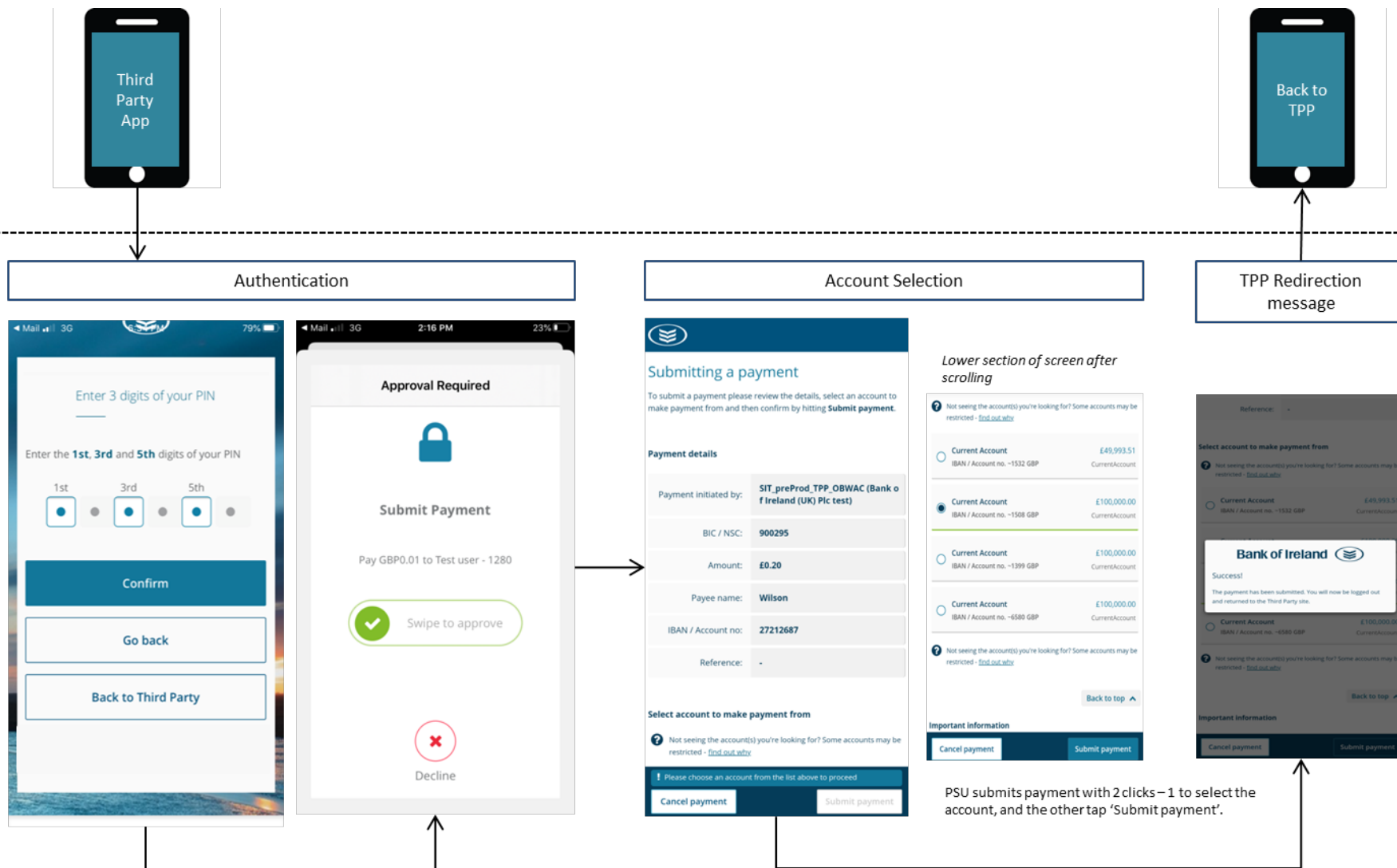
The 90 day access refresh journey is identical, although as per the Customer Experience Guidelines, the account(s) is pre-selected, and the access terms cannot be altered.

After authentication this is a 1-click journey, with PSUs only needing to tap 'Complete'.

App to App PIS

TPP Domain

ASPP Domain



PSU authenticates by inputting 3 digits from their existing 6 digit 365 PIN. They must then 'swipe to approve' (this text matches what appears on 365 online).

When the account has been provided by the PISP, the account is pre-selected and cannot be altered, and PSUs just need to tap 'Submit'.

All PIS journeys mirror the equivalent single immediate payment journeys

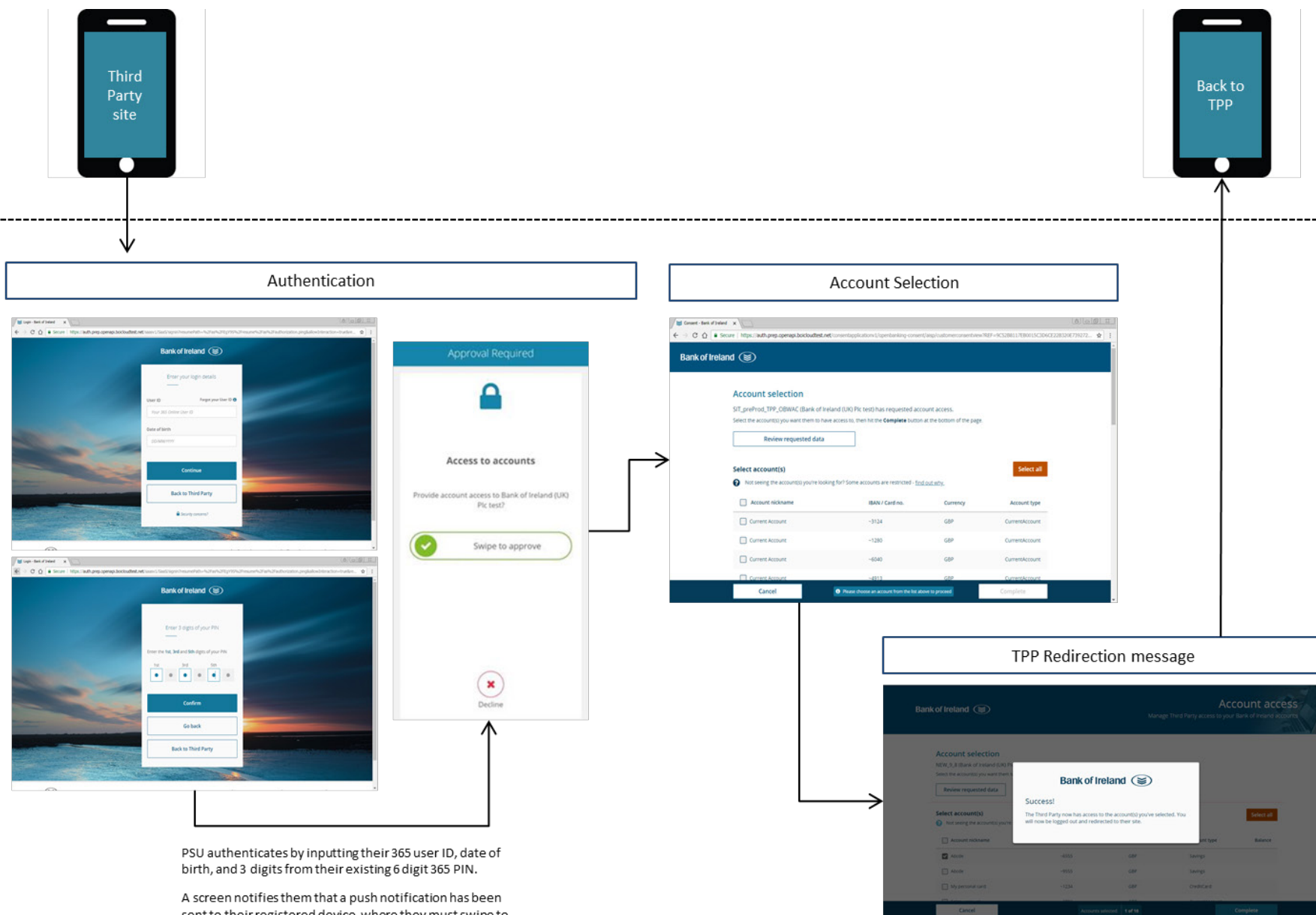
For example, Future-Dated Payments with the account pre-selected follows CEG 4.1.2, and CEG 4.1.3 when the account selection is at the ASPSP

Standing Order and Future-Dated Payment screens contain all necessary information, e.g. payment frequency, payment date etc.

Browser to App AIS

TPP Domain

ASPS Domain



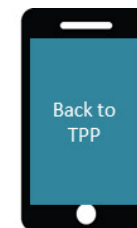
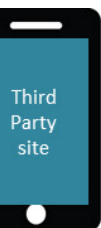
The 90 day access refresh journey is identical, although as per the Customer Experience Guidelines, the account(s) is pre-selected, and the access terms cannot be altered.

After authentication this is a 1-click journey, with PSUs only needing to tap 'Complete'.

Browser to App PIS

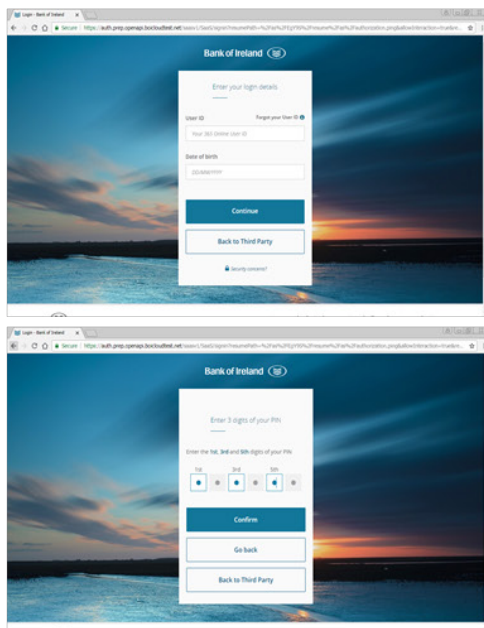
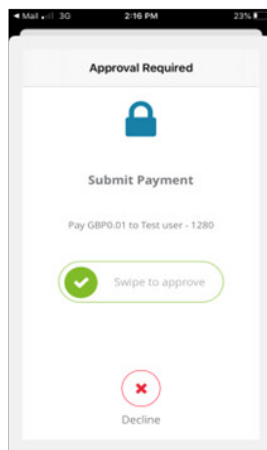
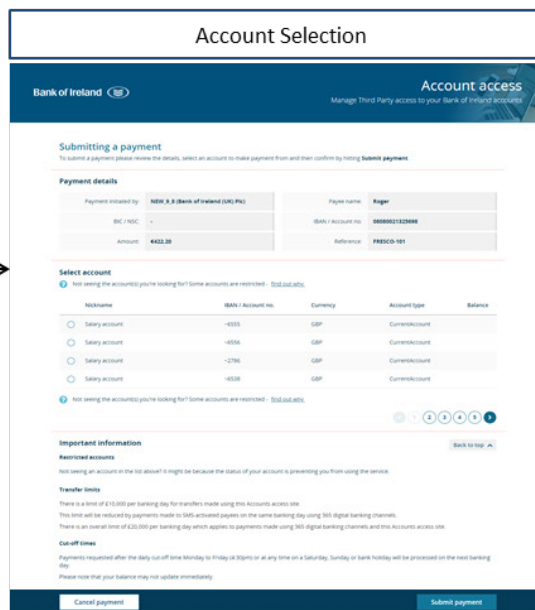
TPP Domain

ASPSP Domain



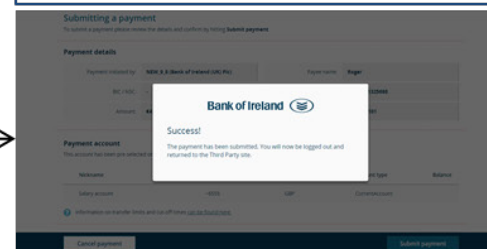
Authentication

Account Selection

Reference	Bank / Account No.	Currency	Account type	Balance
Salary account	-4555	GBP	Current account	
Salary account	-4556	GBP	Current account	
Salary account	-1286	GBP	Current account	
Salary account	-4558	GBP	Current account	

TPP Redirection message



PSU authenticates by inputting their 365 user ID, date of birth, and 3 digits from their existing 6 digit 365 PIN.

A screen notifies them that a push notification has been sent to their registered device, where they must swipe to complete authentication.

When the account has been provided by the PISP, the account is pre-selected and cannot be altered, and PSUs just need to click 'Submit'.

All PIS journeys mirror the equivalent single immediate payment journeys

For example, Future-Dated Payments with the account pre-selected follows CEG 4.1.2, and CEG 4.1.3 when the account selection is at the ASPSP

Standing Order and Future-Dated Payment screens contain all necessary information, e.g. payment frequency, payment date etc.

Customer Segment and Channel Summary

This is a reminder of the existing authorisation URLs for the different jurisdictions and channels. None of these have changed with the introduction of the new authentication journeys.

Brand	Customer Segment	Website / Channel Name	Auth URL	API Versions Supported
Bank of Ireland UK	Personal and Business	365 Online (365)	https://auth.obapi.bankofireland.com/oauth/as/b365/authorization.oauth2	v2.0, 3.0 (AIS) v1.1, 3.0 (PIS)
	Business (dedicated business channel)	Business On Line (BOL)	https://auth.obapi.bankofireland.com/oauth/as/bol/authorization.oauth2	v3.0 (AIS, PIS)
Bank of Ireland (ROI)	Personal and Business	365 Online (365)	https://auth.ob.bankofireland.com/oauth/as/b365/authorization.oauth2	v3.0 (AIS, PIS)
	Business (dedicated business channel)	Business On Line (BOL)	https://auth.ob.bankofireland.com/oauth/as/bol/authorization.oauth2	v3.0 (AIS, PIS)

Useful information

Business customers have the option to access Open Banking services using their Business On Line credentials (when the TPP has gone to the Business On Line URL) or, if they have registered with the 365 Online service, can use the 365 credentials (via 365 URL).

365 credentials will not work on Business On Line, and vice versa. For further details on how to access through Business On Line, visit the Developer Portal or ask a question on the Contact Us form.

FAQs

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Where can I find the latest information on version support and any other changes?

We will keep the OBIE transparency calendar up-to-date, while the latest information is available in the News and Announcements section of our Developer Portal help section here: <https://www.bankofireland.com/api/>. You may also contact us through the portal.

When will additional payment types and confirmation of funds be available?

Confirmation of funds for personal and business current accounts and credit cards and further payment functionality (multi-authorisation, file payments, international payments) are on our development roadmap. Updated timescales will be published on the OBIE transparency calendar.

Is there a fallback solution, and how do I use it?

If the Open Banking channel (or certain API functionality) is unavailable (for example, due to a systems breakdown), we will make available a contingency mechanism (also known as a fallback solution).

In order to use the fallback solution, you must fill out the 'Notification for use of Fallback' form, and attach your eIDAS certificate. This can be found in the FAQ section of the Developer Portal.

Will Post Office current accounts and credit cards, and AA credit cards, support API access (UK)?

Post Office current accounts are no longer available through Bank of Ireland and the portfolio has been closed.

Post Office and AA credit cards provided by Bank of Ireland UK have been sold to a new credit card issuer. Jaja are the new issuer and are now fully responsible for all regulatory commitments, including access to accounts for PSD2.

