

OVERSEAS PENSIONS (DISCOVERY) "DIGITAL IDENTITY FOR AN AGEING POPULATION"

By Fola Ogunsola & Steve Pannifer

Contributors

















OIX UK is the UK arm of a global organisation and works closely with the Cabinet Office on the Identity Assurance Programme. Its goal is to enable the expansion of online identity services and adoption of new online identity products. It works as a broker between industries, designing, testing, and developing pilot projects to test real use cases.

Executive Summary

ension fraud is a widely publicised problem. It may occur when a non-entitled beneficiary such as a spouse or close relative of a pensioner omits to inform the pension provider (deliberately or mistakenly) of the death of a pensioner and continues to claim the deceased's monthly pension. It may also occur quite deliberately through identity theft. Identifying overseas pension fraud is particularly difficult. Given that state and private providers pay out £billions in pension payments, finding effective ways to detect and prevent such fraud is very important.

Western Union Business Solutions has developed an innovative way of tackling the problem of overseas pension fraud. The Global Existence Transaction ("Existence") service helps reduce fraud by providing a process for verifying the existence of legitimate pension beneficiaries. This involves

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the pensioner presenting him or herself at a Western Union Agent location with the appropriate identification documents to collect a funds transfer sent by the pension provider. By presenting their identification to collect their funds, the pension provider has confirmation of their beneficiary's existence. The results obtained in initial trials have been very promising.

Besides the clear potential benefits of the service in reducing pension fraud, Existence supports the wider requirements of the UK Identity Assurance Programme ("IDAP"¹) to obtain verifiable evidence that can be bound to the individual requesting a digital service.

This paper explores how such a service could be

leveraged as a capability of the Identity Assurance Programme to:

- a) Allow an Existence enabled digital identity to be federated across multiple pension providers;
- b) Provide an additional identity proofing capability to identity providers.

¹ More on IDAP on page 6

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1. Introduction

The Problem

Establishing and maintaining digital identity for individuals who are entitled to access UK government services but who live abroad, presents challenges. Evidence commonly used to confirm identity of UK residents may not be available to individuals living abroad. For example, individuals may not have current UK (or EU) issued documentation and they may not have a digital footprint in the UK, e.g. through financial activities or relationships with utility providers. Furthermore, for higher Levels of Assurance ("LoA") where a face-to-face check is required, this may not be practical.

This paper explores how Existence could help to address some of the issues with gaining assurance in the identities of overseas citizens. The paper uses the specific use case of reducing pension fraud, as this is an area where such a service would be of significant value. We believe the services may have a wider scope in assisting identity providers in issuing digital identities to overseas citizens. If this can be achieved, citizens living abroad would potentially have access to a wide range of digital services in the future.

Pension fraud in the UK is well documented in both the public² and private sectors. 'Pensioner existence' is identified as being the biggest fraud risk by many providers³. Proving existence is particularly challenging for overseas claimants where two types of fraud have been identified:

- Opportunistic fraud where a non-entitled beneficiary, mistakenly or deliberately, continues to claim the pension after the death of the entitled beneficiary (usually a spouse or close relative); and
- Criminal fraud through stolen identity being illegitimately used by criminal organizations to claim pensions.

The UK government's Department for Work and Pensions ("DWP") pays out approximately £3.5 billion to 1.2 million overseas pensioners in 175 countries. Currently, about 700,000 of those are in countries where the DWP has a reciprocal agreement to 'swap' death registration data or can buy such data. However, the remaining 500,000 pensioners are in countries outside of these two categories, some of which are considered to be high-risk countries. The situation is similar for private sector pension providers.

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² https://www.gov.uk/government/world-location-news/benefit-fraud-team-in-spain-is-recovering-a-record-5m-of-taxpayers-money

³http://www.bakertilly.co.uk/SiteCollectionDocuments/Pensions/Pensions%20Fraud%20risk%20survey%202013.pdf

Western Union Business Solutions Existence Service

Pension administrators in the UK currently verify the identity of pensioners that live abroad on an annual basis by way of a signature comparison exercise. This supports the Know Your Customer ("KYC") and trust data requirements and helps to reduce pension fraud.

In 2013, Western Union Business Solutions, a leading non-bank provider of cross border payments to businesses, operating through locally licensed affiliates in over 30 countries, completed an Existence pilot with a UK based private pension provider. The pilot resulted in savings equivalent to 5% of the funds used in the trial.⁴

In addition, a data cleansing exercise was undertaken where personal information, namely contact information for pensioners, was updated. These updates go a long way in ensuring that future correspondence goes to the intended beneficiary, saving time and improving efficiency for both the pensioner and the pension fund administrator.

The Western Union Business Solutions Existence service is one of a number of solutions that can be deployed in confirming pensioners' identity verification and is the focus of this report.

Hypothesis

Combining the Western Union Business Solutions Existence service with IDAP has a number of potential benefits:

- An Existence check performed for one pension provider could be re-used by another
 pension provider (e.g. Mercer and DWP). This enables potential cost savings to the pension
 providers as well being less onerous on pensioners themselves (e.g. needing to perform fewer
 face-to-face verifications).
- Access to counter services for face-to-face services cross border could be of more general interest to identity providers as the use of identity assurance grows.
- Providing pensioners with a digital identity will increase their use of digital services.
- The service will support pension providers in fulfilling the legal obligation of the Data Protection Act to hold accurate data about their pensioners.
- Pension fraud will be reduced.

This paper explores this hypothesis.

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 $^{^4 \} http://business.westernunion.com/resource-center/articles/post/Professional-Pensions-LPFA-cuts-costs-using-identity-check-service.aspx$

Statement of Intent

The purpose of the project is not to deny pensioners their pension or make accessing pensions more difficult, but rather to prevent fraud and help pensioners improve their LoA to access other government services from abroad. It will look to fulfil the DWP's principle of "right person, right money at the right time.". The project recognises the importance of protecting pensioners who cannot engage with the system, and as much as possible, of avoiding instances of suspension of a legitimately received pension. The project also recognises that some pensioners who can engage will be uneasy about doing so. A goal of future work should be to identify and minimise any factors in the Existence process that generate anxiety or unwillingness among this audience.

Document Structure

This paper is structured as follows:

- "Technical View: How would it work?" Describing how the service could be incorporated into IDAP and exploring the resultant user journey.
- "Business View: What would it cost?" Outlining the commercial model for the Existence service and the resultant business case to the pension provider.
- "User Experience View: What would pensioners accept?" Considering usability
 aspects of the proposed service for the target audience, i.e. overseas pensioners, some of
 whom may be limited in their current use of digital services.
- "Compliance View: Is it good enough?" Considering legal or regulatory aspects of the service, in particular looking at the requirement to access or share data across jurisdictions.
- "Conclusions and Next Steps" Is the hypothesis correct? Should an Alpha Project be considered?

Assumptions

This paper assumes that the reader has some familiarity with the GOV.UK Verify service. The identity assurance ecosystem that has been built, as part of that initiative, is referred to but not described in detail. If required, additional background information can be found here: https://identityassurance.blog.gov.uk/

2. Technical View: How would it work?

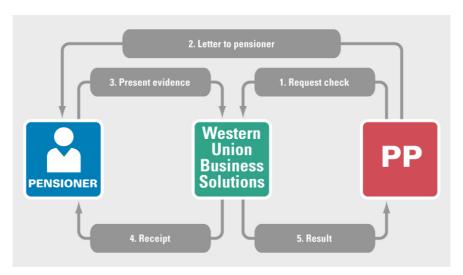
Four scenarios (or "use cases") are considered. Starting from the basic standalone Existence service, the scenarios explore how that service could be incorporated into the IDAP ecosystem.

Scenario 1: Standalone Existence

The basic Existence service provides a means for an organisation, such as a pension provider, to confirm the existence of one of its customers. The following table describes the scenario.

Before: Pensioner with no digital identity and not recently existence checked

Scenario:



- 1. Depending on the implementation, the pension provider may inform Western Union Business Solutions of a pending Existence check.
- 2. The pension provider ("PP" in the diagram) sends a letter to the pensioner informing him or her of the need to attend a Western Union Agent location, providing details of the documentations to take and a Money Transaction Control Number (MTCN).
- 3. Pensioner travels to Western Union agent with the letter and identification documents.
- 4. The Western Union Agent checks the documents and provides the pensioner with a receipt and potentially with a nominal payment.⁵
- 5. The Western Union agent provides the pension provider with the result of the Existence check.

After: Pensioner Existence check process performed but no digital identity established

Pros: The process is as simple as it could be made for both pensioner and the provider

Cons: Standalone. The process needs to be repeated for every Existence request. No collaboration between multiple pension providers. Does not encourage digital engagement with pensioners.

Table 1, Standalone Existence

The standalone Existence service provides a simple way for a pension provider to determine the existence of a pensioner. There is no requirement for the pensioner to have internet access or any experience using digital technologies. Rather the pensioner physically travels to a Western Union

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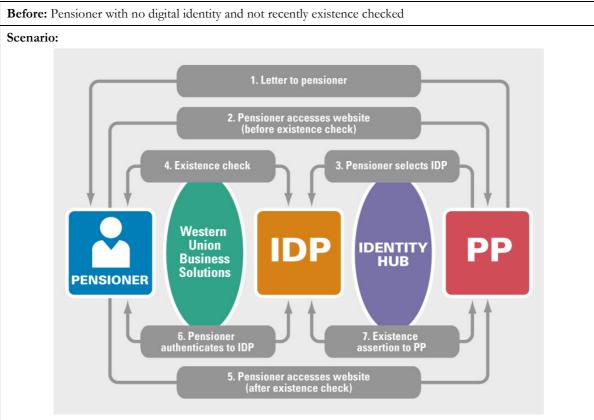
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⁵ The nominal payment is to encourage participation and reimburse the pensioner's transport cost to the Western Union branch.

Agent location with the necessary paperwork and completes the process there. Whilst this service addresses the specific needs of the pension provider by not linking the Existence to a digital identity, the scope for re-use of the Existence result (especially in a digital context) is limited.

Scenario 2: Existence as part of GOV.UK Verify Interaction

The next step is to take the basic Existence service and integrate it into GOV.UK Verify. This will link the result of the Existence process to the digital identity being provisioned, as follows:



- 1. The pension provider sends a letter to the pensioner informing him or her of the need for identity verification and asks the pensioner to access a web site.
- 2. The pensioner accesses the web site and is presented with a choice of IDPs to perform the verification. At this point in the process, the identity of the individual accessing the web site has not been established.
- 3. The pensioner selects an IDP who sets up an identity account for the pensioner and determines that an Existence check will be necessary
- 4. Following instructions from the IDP the pensioner performs the Existence process as described in Scenario 1 (with the result being collected by the IDP instead of the pension provider)
- 5. The pensioner then accesses the pension provider web site again and selects the same IDP
- 6. The IDP authenticates the pensioner (to their account) and informs the pensioner that the Existence process was successful.
- 7. The IDP sends the appropriate identity assertion to the pension provider.

After State: Pensioner's Existence confirmed and now has re-usable digital identity

Pros: Pensioner now enabled for digital services. This does not need to be restricted to pension but potentially to other services offered by government.

Cons: A more complex process, but one that gives the pensioner a digital identity, which can be used for other government services.

Table 2, Existence performed as part of GOV.UK Verify

This scenario is inevitably more complex for the pensioner, as the process involves demonstrating existence as part of the wider process of obtaining a digital identity. That digital identity should however enable the pensioner to access a broader range of services digitally. It will be necessary to ensure that the pensioner is aware of the additional benefit in order that the additional steps required to complete this scenario are understood.

Clearly, this scenario requires the pensioner to have access to the internet. However, that is the point of GOV.UK Verify, to enable digital service delivery. This process will not work for pensioners who are unable to or refuse to connect with services digitally. For such individuals the basic standalone Existence service can still be used, although these pensioners will not benefit from the increased convenience that digital services can bring. The above flows represent one way to integrate the Existence process with GOV.UK Verify. Alternative implementations may be possible which optimise the flows. Such optimisation should focus on reducing the number of steps to the end customer. In particular, as discussed below if the Existence itself can be performed digitally; it may be possible to integrate it seamlessly into the wider identity provisioning process.

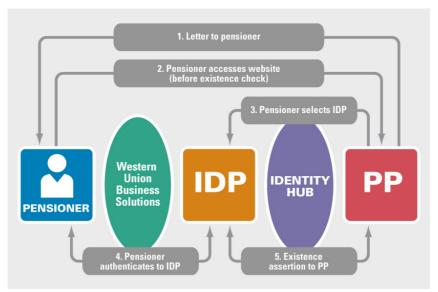
The identity hub in this scenario is the Government Digital Service (GDS) hub. Its role is to act as a broker between government relying parties and identity providers, connecting pensioners with the identity provider of their choice.

Scenario 3: Re-use of Existence by another Pension Provider

Having created a digital identity and been through the Existence process, the pensioner could then use that digital identity to digitally assert their existence to other pension providers, as follows:

Before: Pensioner has Existence checked identity established from previous pension provider interaction.

Scenario:



- 1. The pension provider sends a letter to the pensioner informing him or her of the need for identity verification and asks the pensioner to access a web site.
- 2. The pensioner accesses the web site and is presented with a choice of IDPs to perform the verification.
- 3. The pensioner selects the IDP with whom he or she already has an account and was previously Existence checked.
- 4. The IDP authenticates the pensioner
- 5. The IDP passes the relevant identity assertion back to the pension provider including information about the pensioner's existence.

After State: Pensioner Existence confirmed with re-usable digital identity

Pros: This scenario is where the real value of the federated identity process is realised. The pensioner has a straightforward digital process to follow which can be performed completely online leveraging the Existence check previously performed with another pension provider.

Cons: Less control and visibility to pension provider on when checks actually occur, due to reliance on third party IDP. This may result in pension claims being possible for a period after the pensioner dies until the next Existence check is performed. This can be mitigated by allowing the pension provider to specify appropriate business rules when requesting an identity assertion from the IDP.

Table 3, Re-use of Existence at another pension provider

This scenario is where the benefit of performing the Existence process as part of IDAP is realised. The pension provider is able to digitally confirm their existence to other pension providers as necessary.

The identity hub in this scenario would not be the GDS hub, which is focused on providing access to public sector services. An equivalent private sector hub would be used to perform a similar brokerage function. The identity providers would however be the same, accessible via either hub.

Scenario 4: Refresh of Existence

Periodically it will be necessary to redo the Existence check. This will likely be triggered by the pensioner accessing a service for which the current Existence check is deemed to be out-of-date or could be performed at the explicit request of the pension provider. Refreshing identity data is a standard part of the IDP service. The identity provider would invoke the required Existence process, as follows:

Before: Pensioner has Existence checked identity established from previous pension provider's interaction however it has expired, e.g. after 2 years.

Scenario:

The scenario is the same as scenario 2 above, except that step 3 (IDP selection and account setup) will be simpler. The pensioner will already have an account. The expired Existence check will trigger the process to be performed again.

After State: Pensioner existence re-established and now has re-usable digital identity

Pros: Pensioner enabled for continued use of digital services, not limited to pension provision.

Cons: Process as complex as scenario 2.

Table 4, Periodic refresh of Existence

The complexity of this scenario to the pensioner will be linked to the complexity of scenario 2 and this is in effect a refresh of that process. The benefit of performing this process will increase as the pensioner accesses more services digitally.

Developing the scenarios

The above scenarios represent some initial thinking about how the Existence process and GOV.UK Verify could be combined to provide assured cross border identities. These scenarios will likely need to be refined in the future. However, they illustrate the potential way such services could work together.

Some specific ways in which the scenarios could be developed include:

- Private Sector Hub: Currently the scenarios assume the presence of a private sector hub, connecting the pension provider with IDPs. Presently, there is no established identity hub service in the marketplace. This is only one of the possible architectures that could be followed. It is expected that Government identity assurance will continue to be performed through the GDS hub. The private sector should be open to other models, especially if they provide a faster route to market.
- Other Use Cases: The focus of this paper is on the checks required for pension provision. It is likely that a generic capability such as Existence will have value in other use cases.
- Digital Verification: The focus of this paper is on Existence being performed in a face-toface environment. As discussed below, technology may also allow these checks to be
 performed remotely or digitally. For example, software can be used to analyse an image of a
 document to determine the document's genuineness. In the case of an identity document,

containing a photograph, it may also be possible to combine this with an analysis of a photo of the citizen (using their PC or mobile device).

3. Business View: What would it cost?

The Existence service is likely to consist of two cost components:

- A fee to the Existence provider, for the services that they provide. Due to the nature and frequency of the Existence process, it is likely that a fee will be charged per check performed.
- A nominal payment to the pensioner, for example to reimburse the costs incurred to complete the existent check process. The Western Union Business Solutions Existence service requires a payment transaction to be performed. The size of the payment will be determined by the requesting organisation (e.g. the IDP)

This paper is not the right medium to suggest the actual fee levels. They will however need to be set at a level that fits commercially with other identity provider services.

For Identity Providers, the service would provide a tool to extend the reach of their services to citizens living abroad enabling such identities to achieve a high level of assurance due to improved binding and potentially improved activity history. The Existence service would need to be part of the Identity Provider's overall portfolio offered to both the government and the private sector. The aim should be to develop a marketplace that supports the needs of the pension industry as well as other relying parties.

4. User Experience View: What would pensioners accept?

User experience is an important aspect of the Existence service. For the service to be effective, it must be clear to pensioners what is required of them and why. This is closely tied to the matter of social responsibility. Pensioners are a vulnerable group and a wrongly suspended pension could have severe consequences for the pensioner concerned. User research should be performed to explore the factors which could inadvertently contribute to this outcome and to inform the design of a system where this possibility is minimised. To be truly representative such research needs to be performed with pensioners actually living abroad in a variety of markets. The aim will be to strike an appropriate balance between the need to reduce fraud and the need to protect pensioners from any inadvertent suspension of their income.

Nonetheless, from discussions with relevant experts there are a number of user experience concerns that would need to be addressed in the proposed service, such as:

- Complexity: The process needs to be simple to follow, especially for those pensioners who
 lack confidence in their use of digital services. In addition, it is possible that overseas
 pensioners will be more isolated making it more difficult for them to obtain help in
 understanding or completing the process.
- **Confusion**: For pensioners who have been receiving payments automatically, to be told that they are required to follow a new process or risk losing payments could be confusing.
- **Mobility:** The ability to attend the nearest Western Union Agent location may itself be difficult for pensioners who are homebound or disabled.
- Accessibility: There will inevitably be some pensioners who live remotely. However, the
 Western Union Agent network provides excellent global coverage. In the Existence pilot
 conducted by Western Union Business Solutions, 87% of participants lived within 2 miles of
 a Western Union Agent.
- Wariness: It is a known fact from previous identity assurance research in GDS that pensioners are more wary than younger age groups about providing sensitive personal information to third parties. This wariness or anxiety may be amplified unpredictably by other factors (e.g. remoteness from the UK, the crucial importance of the pension, etc). It is important to identify the factors that could contribute to such effects, and to address them where possible so that any unwillingness or difficulty in engaging with the system is minimised.

In addition, for pensioners that lack access to or are unable to use the internet, performing Existence in the context of IDAP may not be possible. This is a generic issue with access to digital services rather than a problem with the proposed Existence process per se. For those pensioners, alternative

⁶ It was not possible to undertake such user research within the scope of this discovery project.

approaches should be considered perhaps including allowing pensioners to delegate the process to an approved person or by using an alternative channel (e.g. IVR).

An important next step in developing the Existence process (in the context of IDAP) must be to be able to test and refine the likely user experience with pensioners.

5. Compliance View: Is it good enough?

Two aspects of compliance were considered during the discovery project: the specific identity assurance requirements of IDAP, defined in Good Practice Guide (GPG 45), and data sharing.

GPG 45

GPG 45 specifies the requirements for identity proofing for the UK Government. The types of evidence that are suitable are dependent on the level of assurance required. However, the following basic process is employed:

- Evidence presented must be shown to be genuine and/or valid depending on the LoA. A
 document can be shown as genuine through the examination of the document itself. A
 document can only be shown as valid by accessing an appropriate authorised data source.
- Binding of evidence to the individual, which shows that the evidence presented corresponds
 to the individual attempting to establish an identity.
- The Claimed Identity shall be checked with various counter-fraud services to ensure that it is
 not a known fraudulent identity and to help protect individuals who have been victims of
 identity theft (Counter-Fraud Checks).
- Activity History of the claimed identity is performed, as lack of historical activity can
 indicate a problem with the identity.

The Existence service as currently defined relies on a wide network of agents who are required to inspect the identity documents presented by pensioners for genuineness. It is unlikely to be feasible to be able to train all agents to the level required by GPG 45. However, genuineness checks can be performed effectively through other means such as analysing an image of the identity document (e.g. spotting wrong type of ink). At least two of the existing IDPs have this capability, which could for example, be integrated into Western Union kiosks or mobile applications. It is pertinent to note at this point that due to legislative requirement in some jurisdictions, identification data can only be 'extracted' from documents presented, not 'collected or copied'. This inhibits real-time genuineness check of documents in such jurisdictions as the process totally depends on the agent's ability to detect counterfeit documents rather than being supported by a backend detection system if there were digital images of the documents available.

Where the Existence service does add particular value is in the binding process. The service would provide a controlled way to ensure that the identity documents copied (where applicable) are of the same individual whose photograph was taken. This potentially can also be achieved at an unmanned kiosk.

In addition, where the pensioner is also a regular user of the Western Union consumer money transfer service for making or receiving international payments, it may be possible to bind the activity history of the pensioner to the digital identity being assured.

Data Privacy

Performing an Existence check on an overseas pensioner by definition requires data to be shared across jurisdictions. The amount of data that is needed to be shared may vary depending on the implementation of the service. It could include images of, or data taken from the identity documents presented by the pensioner. Alternatively, it could be limited to a simple assertion of existence.

Sharing data with third parties (in this case with identity providers) is possible in most countries provided appropriate registration is made with relevant Data Protection body in each country and the individual's consent is explicitly obtained. Consent needs to be combined with appropriate disclosure defining a clear and legitimate need. Potentially the consent could be obtained digitally (e.g. with a check box presented by the identity provider) before the user embarks on the process of creating an Existence checked digital identity.

Further detailed analysis may be required to conform to the particular requirements of individual jurisdiction. It appears however that appropriate data sharing arrangements should be possible.

6. Conclusions and Next Steps

This discovery project examined the feasibility of employing Existence as part of an identity market place, including GOV.UK Verify. The focus has been on the potential benefits to the pension industry, helping it to tackle pension fraud. The scope of such services is broader, however, being relevant to any high value service.

Within the scope of the project it was not possible to explore all areas in full detail. Nonetheless the overall conclusion is that the Existence service has a potentially valuable role to play in the context of GOV.UK Verify and related identity services. To be of greatest benefit to users (e.g. identity providers) services should be developed in an open and interoperable way. This will allow a competitive market place to develop that encourages innovation and works for the interests of users.

The user experience of the service is a particular area that should be investigated further. Reducing friction and complexity is always desirable but likely to be particularly important for pensioners, especially those who lack confidence in using digital media. A key requirement of the service should be to make it as simple as possible. The use of mobile (phone or tablet) technology may help address the potential areas of friction in the service, especially if an Existence check can be performed entirely digitally, to an acceptable level of assurance.

In conclusion, Existence will increase the capabilities for identity providers especially in enabling them to sign-up individuals who are resident outside of the UK. It is recommended that the following next steps be taken:

- Undertake user research with actual overseas pensioners to assess the user journey. This
 would be best performed with a pilot service (e.g. delivered in an Alpha Project) allowing the
 pensioners to experience for themselves the actual process.
- Assess in more detail the viability of incorporating technology into the service to reduce the reliance on trained personnel and as well as considering a fully digital Existence process.
- Identify specific corridors, where high volumes of pensions payments are paid to specific
 countries or areas. These corridors are likely to produce the maximum return on investment
 in the short term.
- Develop the business case in more detail.

Appendix A - Glossary of Terms

Term	Definition
DWP	Department for Work and Pensions
GDS	Government Digital Service
GPG	Good Practice Guide
IDAP	Identity Assurance Programme
IDP	Identity Provider (e.g. Experian)
IVR	Interactive Voice Response
KYC	Know Your Customer
LoA	Level of Assurance
OIX	Open Identity Exchange Organization
PP	Pensions Provider (e.g. DWP and Mercer)
ROI	Return on Investment
WUBS	Western Union Business Solutions