# Moving towards a region agnostic Geo design

## Accounting Externalisation focus

### Background

ABC identified that the MWI-UK Merlin product could be profitable in other regions. Currently this system has been designed, built and sold in the UK only, however with some alterations this system could be localised to a target country, following which this ‘new’ system can be demonstrated and potentially sold to veterinary practices within that country.

The work to regionalise Merlin was triggered with the US nominated as the target country. 3 months of development work has taken place to update Merlin to follow US formatting e.g. date, time, spelling, currencies, etc. Where it was identified that small tweaks can not be made to support the US perceived requirements new Services has been developed to utilise the new Echo UI/UX and create an app within the Merlin product to surface new backend functionality to users.

In this document we are focusing on the Accounting Externalisation (AcEx) therefore a new app, also called Financial Service (FS) has been created in the new Echo offering to allow the Merlin product to display the correct tax based on the items and services sold and the location in which the sale took place.

The US has one of the most complicated taxation systems with the amount to pay and to which agency or agencies differing from one state to another, areas within a state to another and whether the item was sold on site or delivered. To amend Merlin to support all these rules, would not be efficient therefore it was decided that we us an external Accountancy Platform (AP) to receive the data on the items sold, calculate the correct taxation, which Merlin would then ingest to display invoices and estimates net, tax and gross costs to the user within the new Financial Service UI/UX

QuickBooks (QB) was identified as the AP and all AcEx development has hinged around QBs APIs, and the new FS UI/UX.

Due to the above the existing Accounts page in Merlin will not be available therefore all functions within this page and the financial menu, needs to be replicated in the FS app. Given the size of the undertaking this work was split into MVP and post MVP.

The MVP build will allow users to onboard to QBS, set the taxable flags against their products and services in QBS, generate invoices and estimates with the correct taxation calculation added, allow the user to record payment and process refunds / credits.

### Current situation

Following three months of development we now have the makings of the MVP built in Merlin / FS displayed in Echo using data sent and received from QBs.

A close-up of a diagram

Description automatically generated

#### US on Hold

Due to circumstances outside of the project, the direction to localise Merlin to the US has been put on hold. It is believed that the GEO project is only paused while another country is identified.

*Other regions*

Other countries have been raised, but the most promising so far is Ireland. Therefore, we are in a position where will need to pivot the development of Merlin US to Merlin Ireland. Predominantly this will be alterations to localisation formatting, e.g. date, time, spelling, currencies, etc. however for the AcEx work this is a substantial change.

#### Dependencies

During this build, two other projects which have an interdependency with the build / design of AcEx have commenced, Echo, Payments and AllyDVM.

Payments

Payments is looking to bring in Payment links using Swipe as the provider. Areas of overlap are

1. QBs has its own payment link offering; we would not be able to prevent users from turning this in in QBs
2. The payment team need to develop UI/UX to support their journey, this will be the same UI/UX being developed for AcEx, invoice selection, present method and amount, receipts, dashboards, etc.
3. The payment team need to support existing user journeys, for example Advance payments, however QBs may not be able to support the new design resulting in a new payment process that can not be lifted and shifted to the US

Echo

The Echo team are designing the look and feel of the entire Merlin upgrade. AcEx is being built within the Echo framework but before the Echo team have completed their work. This means AcEx has the potential of building UI, and navigation / UX that does not match the global Merlin design. This would result in a jarring process for users as they move from one area to another or AcEx having to be reworked to meet the design principles agreed by the Echo team

AllyDVM

The integration with AllyDVM US using information taken from the US AcEx, if this work stops/ changes how the connections to AllyDVM may also need to be altered.

### Potential solutions

We are now in a position where we either solely focus on reworking the US version of Merlin with its AcEx requirements for the perceived Ireland requirements or we can alter our approach to build a region agnostic offering, which would provide a framework solution based on the country or countries Merlin is to be deployed, e.g. Configurable date time, currencies, languages, taxation requirements, etc.

*Regional agnostic Accounting Externalisation*

The drive to use QuickBooks, build a two-way configuration between Merlin and QuickBooks and present this combined data in a new interface (FS UI) came from the need to resolve the complication of America’s item / service taxable status and location of sale, state/inner state rules.

Though the taxable status can be managed in the existing build, the locational variable is why we have built the MVP the way we have. A single target county is the reason for the Accounting Externalisation design

It is recommended that instead of a singular focus, we analysis accounting / taxation rules from a broad section of countries and create a tiered AcEx offering.

For example,

1. UK – flat VAT charge, where some items and organisations are VAT exempt
2. Ireland – tiered VAT, where types of items / services are charged at different VAT rates, plus some items and organisations are VAT exempt
3. USA - where some items and organisations are VAT exempt, the amount of sales tax is a calculation based on the state and inner state and across states taxation rules payable to multiple regional agencies

Types 1 and 2 could be handled within the existing Merlin offering, decoupling a dependency on an AP integration and FU interface. With the potential to use the 1-way integration we have built to allow users to also update their own external Accounting Platforms.

Type 3 counties would require considerable build, testing, 2-way integrations, AP costs to the end user, etc. and therefore could be a consideration in the decision on which country we target and when

*Benefits*

Focusing on an agnostic design

1. Up front analysis of a broad set of country requirements
2. Provide a structured, modular approach be region and functionality
3. Quicker response to pivot to new target countries

If we focus on Type 1 and 2 countries first

1. Users are not locked into buying a QBs licence to us our system
2. We do not need to support users in the use of QBs
3. Reduced risk of errors created by Users completing actions in QBs
4. Potential to deploy quicker into Type 1 and 2 countries
5. We can deploy to Types 1 and 2 without risk of impacting the Echo or Payments project