**UIA Quote and Buy Specification**

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# Introduction

## Background

UIA Mutual Insurance has been providing insurance to trade union members and their families for over 125 years. In addition to this they have a Together Mutual offering which is available to the general public.

They underwrite home insurance only, but offer travel, pet and car insurance through third parties. They have two home insurance Quote and Buy journeys, one for UIA Mutual and one for Together Mutual.

The Quote and Buy journey forms a central part of UIA’s online sales interface. The system serving it is placed as a middle layer between the CMS front-end and database/quote engine back-end (TIA).

In addition to collecting the necessary data, displaying quotes and integrating with third-party systems to collect payment, it provides continuity for returning customers and information to address common questions.

The current system is fairly old and hard to maintain, with small changes requiring significant development work, and hence there is a desire to replace it with a more modern configurable system. The intention is that initially the new system will offer a very similar set of functionality to the existing system, but it will be architected in such a way as to make future changes easy, and where feasible not requiring any further development work.

## High Level Business Requirements

The overarching requirement is to develop a more modern, mobile-centred replacement for the existing Quote and Buy journey and associated business logic.

Key requirements are that it should be easy for customers to use, with a focus on mobile-first, and that it should be easy for UIA to configure parts of the customer journey, ensuring that new qualification questions can be added in as easy way as possible. In addition, the same system must be capable of serving two distinctly branded sites (section 0).

As well as being more configurable in terms of the front-end, UIA would also like to allow more flexibility with regards to the back-end systems that it integrates with. Currently, the system integrates with TIA (section 5.1), but there is a desire to move away from this in future, so the new system should be designed with this in mind.

Additionally, rebuilding the system also gives the opportunity for further improvements in terms of user experience, data security and performance. These are all important factors for the new system.

## Document Structure

The remainder of this document is broken down as follows:

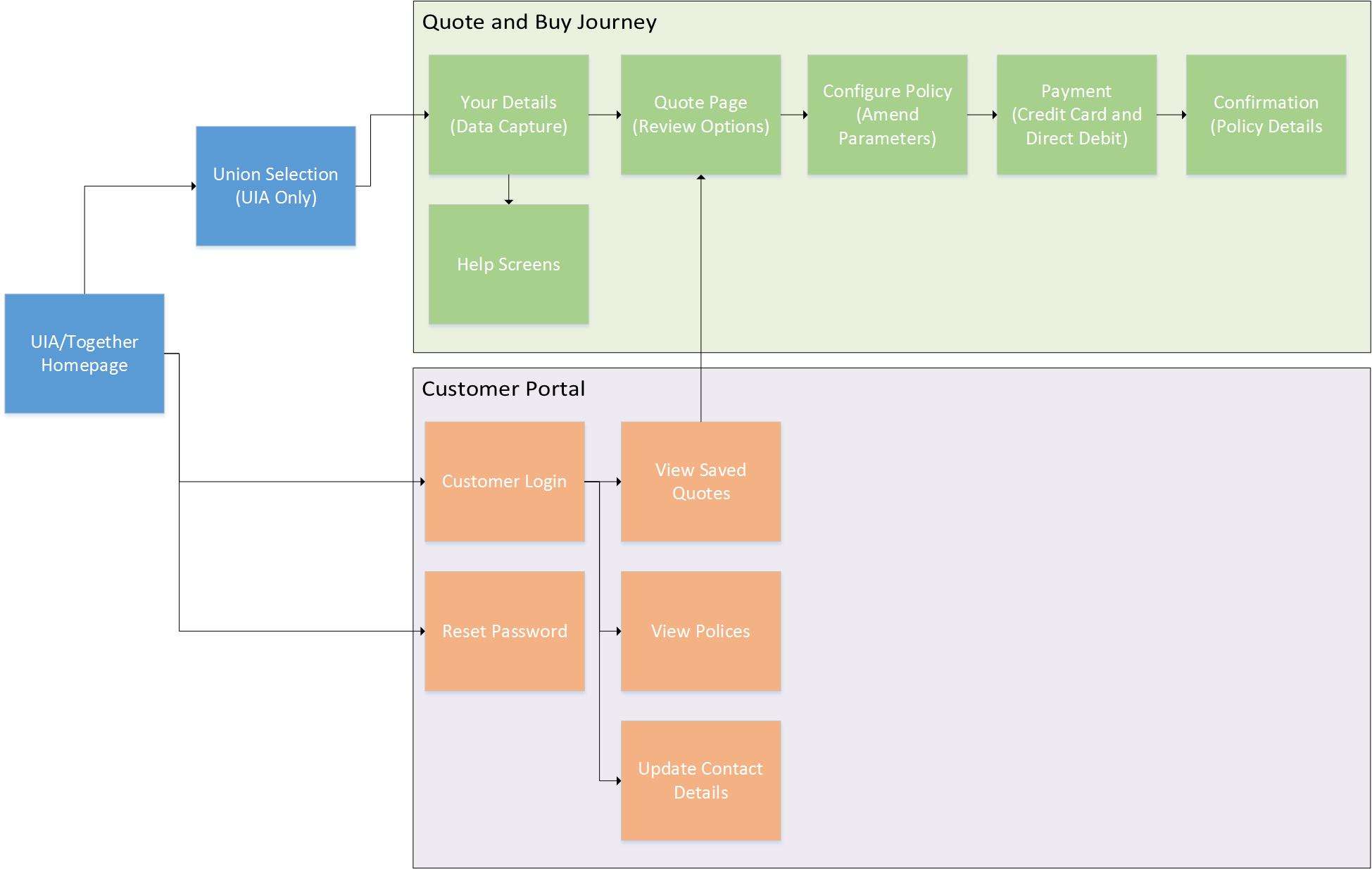
* Chapter 2 – Details the user-facing functionality that needs to be offered by the new system
* Chapter 3 – Further details on the validation and logic
* Chapter 4 – Non-functional requirements
* Chapter 5 – Details of the current integration points of the system

# Customer-facing Functionality

This chapter details the customer-facing functionality that is offered by the system.

## Current Sitemap

The current system is organised in the following structure. It is expected that the new system will have a similar set of pages, though the details of these may change. The boxes marked in blue are managed by UIA and are outside the scope of this project. Note that the map is almost identical for both the UIA and Together sites – they have the same functionality but are distinct in configuration and branding (see sections 4.6 and 0).



The content and behaviour of these pages will be detailed in the following sections.

## Quote Journey

This set of pages represents the main flow for a customer to purchase home insurance. The steps are:

* Collect details about the customer so that the details can be validated and a quote generated
* Display details of a quote to the customer, and allow them to select the one that they are interested in
* Allows the customer to make payments for insurance
* Displays a confirmation page

### Your Details Page

#### Purpose

The purpose of this page is to retrieve sufficient details from a customer to allow a quote to be generated. This includes validating that the details are sufficient to be able to offer a quote at this stage.

In the current system, the available questions and fields are hard-coded into the application, and development work is required for these to be updated. In the new system, there is a strong desire for the set of questions to be configurable by administrators if this can be achieved in a practical and cost-effective way.

#### Fields

The table below details the data that is currently captured on a field-by-field basis. As described above, in the new system this set of fields (and ideally validation rules) would be editable within the system.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Validation | Notes |
| Title | Dropdown | Required | Values are currently hardcoded in the application. |
| First Name | Text | Required  Non-whitespace |  |
| Surname | Text | Required  Non-whitespace |  |
| Email | Text | Required  Email format (regular expression) |  |
| Telephone | Text | Required  Telephone format (regular expression) |  |
| Date of Birth | Date | Required  Valid Date | Currently entered as three dropdowns (day, month, year) |
| Occupation | Autocomplete Dropdown | Required | Once three characters are entered, they are used to filter a list of valid occupations read from TIA.  This field includes a tooltip explaining how to enter the data. |
| Do you want to add a joint policy holder? | Radio Buttons | Required | Options are yes/no. Selecting yes causes additional fields to be added to the page dynamically |
| Joint Policyholder Title | Dropdown | Required if joint policy holder set to yes | Values are hardcoded. Only visible when joint policy holder set to yes. |
| Joint Policyholder First Name | Text | Required if joint policy holder set to yes | Only visible when joint policy holder set to yes. |
| Joint Policyholder Surname | Text | Required if joint policy holder set to yes | Only visible when joint policy holder set to yes |
| Joint Policyholder Date of Birth | Date | Required if joint policy holder set to yes | Currently entered as three dropdowns. Only visible when join policyholder is set to yes |
| Joint Policyholder Occupation | Autocomplete Dropdown | Required if joint policy holder set to yes | Once three characters are entered, a query is run against TIA to suggest options. Only visible when joint policy holder is set to yes. |
| Property Address | Address | Required | See section 2.6.3 for address entry details. |
| What Type of Property Is It? | Dropdown | Required | Options are read from TIA |
| What Type of Cover do you require? | Dropdown | Required | Options are read from TIA |
| Is your home listed? | Dropdown | Required | Options are read from TIA |
| What year was it built? | Text | Required  Numeric | This field includes a tooltip explaining how to find this information |
| Ownership Status | Dropdown | Required |  |
| How many bedrooms? | Dropdown | Required | This field includes a tooltip explaining how to find this information |
| Has the property been extended? | Radio Buttons | Required | Yes/no options. This field includes a tooltip clarifying the definition of a bedroom |
| Is it built with brick/stone walls and with a slate/tile roof? | Radio Buttons | Required | Yes/no options. This fields includes a tooltip explaining what to do if the answer to the question is no |
| Is it alarmed? | Dropdown | Required | Options are read from TIA |
| Do any of the occupants smoke? | Radio Buttons | Required | Yes/no options |
| Is there a smoke alarm on every floor? | Radio Buttons | Required | Yes/no options |
| Do your door locks meets our recommended standard? | Radio Buttons | Required | Yes/no options. The recommended standard text is a link that opens an in-page popup detailing the standards. |
| Previous Claims | Radio Buttons | Required | Yes/no options. This field includes a tooltip explaining what constitutes a claim. If yes is selected, then an additional section of the page dynamically appears, allowing them to enter claim details (and select and delete previously entered claims) |
| Claim Date | Date | Required for an individual claim  Date | Currently three dropdowns (date/month/year) |
| Claim Type | Dropdown | Required for an individual claim. | Options are read from TIA |
| Claim Cause | Dropdown | Required for an individual claim | Options are read from TIA |
| Value | Text | Required for an individual claim.  Currency |  |
| At this address | Radio Buttons | Required for an individual claim | Yes/no options |
| When would you like your policy to start? | Date | Required  Valid Date  In future | Date picker. |

#### Onward Journey

The form contains a submit button, labelled “Get my quote now”. Clicking this will trigger the validation process. If passed the user will then be taken to the quote page.

Of particular note here is that the back office system can refuse to insure the property at all (when risk and/or value is too high), which should be communicated explicitly to the user.

### Quote Page

#### Purpose

The quote page displays details of any available quotes based on the response from the back office system. It displays details of the available products in a table, allowing the customer to review the different available products and to select their preferred product to proceed with.

#### Display

The main feature of the page is a table detailing the available insurance products and a summary of their features. This table includes the following:

* Product Name
* A link to view a further summary (opens in a pop-up, with data retrieved from the back office system)
* The annual price for the insurance
* The monthly price for the insurance
* Buttons to select the product
* Cover for building insurance
* Cover for contents insurance
* Excess (with a graphical cross for none)
* Fire, smoke, riot, malicious damage, collision, flood, falling trees and theft cover (tick or cross)
* Escape of Water or Oil cover (tick or cross)
* Subsidence cover (tick or cross)
* Home emergency cover (tick, cross or optional)
* Legal protection cover (tick, cross or optional)
* Annual travel cover (tick, cross or optional)
* Extended accidental damage cover (tick, cross or optional)
* Trace and access cover levels (currency)
* Freezer content cover levels (currency)
* Owners liability cover levels (currency)
* Business equipment cover levels (currency)
* Rent and alternative accommodation cover levels (currency)

These details vary by cover level and are provided by stored procedures in the back office system.

#### Validation

There is no validation on this page as there is no user entered content.

#### Onward journeys

The main onward journey from this screen is for the customer to select their desired product. Once selected, this will take the customer to the configure policy page.

### Configure Policy Page

#### Purpose

The purpose of this page is to allow the customer to fine-tune the details of their policy, setting excess levels and options as desired, and to view the impact of any changes on the price.

#### Display

The top of this page displays the price when paid monthly (a single initial payment + 9 subsequent payments) or yearly (a single annual payment), along with descriptions of no claims discount, relevant taxes and a link to the Terms and Conditions.

In the section for configuring excess, it also displays the excesses already built in to the policy. These are standard policy excess, escape of water excess and subsidence excess. These value of these is configured in the CMS.

At the bottom of the page, the button to continue reiterates the monthly/annual prices.

Changes made on this page should automatically update the numbers displayed.

#### Fields

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Validation | Notes |
| Buildings voluntary excess | Dropdown | Required (but can be 0) | Options are hardcoded, £0-£450 in £50 increments. |
| Contents voluntary excess | Dropdown | Required (but can be 0) | Options are hardcoded, £0-£450 in £50 increments. |
| Legal cover | Checkbox |  |  |
| Home emergency cover | Checkbox |  |  |
| Accidental damage buildings | Checkbox |  |  |
| Accidental damage contents | Checkbox |  |  |
| Unspecified items away from home | Checkbox |  | Checking the box reveals a dropdown to specify the value of items covered. |
| Unspecified items value | Dropdown | Required if unspecified items is checked | Only visible if unspecified items is checked.  Options are hard-coded, £2000, £5000-£10 000 in £1000 increments. |
| Specified items | Checkbox |  | Checking the box reveals a subform for entering item details (multiple items can be added). |
| Specified item type | Dropdown | Required to add specified item | Only visible if specified items is checked.  Options are read from TIA. |
| Specified item description | Text | Required to add specified item | Only visible if specified items is checked. |
| Specified item value | Currency | Required to add specified item | Only visible if specified items is checked. |
| Pedal cycles | Checkbox |  | Checking the box reveals a subform for entering bicycle details (multiple cycles can be added). |
| Cycle make | Dropdown | Required to add cycle | Options are hardcoded. |
| Cycle model | Text | Required to add cycle |  |
| Cycle value | Currency | Required to add cycle |  |

#### Validation

In addition to validating that each of the required fields is present, the page should ensure before continuing the journey that the price displayed to the user matches the price for the options that were selected.

This can be done by sending the displayed price to the system when attempting to proceed and checking it against a calculated price and/or by disabling the “Proceed” button when any option is changed and re-enabling it when the updated price is displayed.

This prevents situations such as a user changing an option and quickly clicking through to purchase the policy before they have seen the updated price.

#### Onward journeys

The form contains a submit button, labelled “Proceed” which also displays the monthly and annual price. Clicking this will trigger the validation process. If passed the user will then be taken to the quote confirmation page.

### Quote Confirmation Page

#### Purpose

The purpose of this page is to confirm what the user is purchasing – a final check of the price and details of the policy.

#### Display

The top of the page displays the monthly and yearly price, text about discounts/text and a link to the Terms and Conditions (as on the previous page).

There is a section on policy documents containing CMS content describing the availability of the documents after purchase (through the customer’s account).

There is a section on contact preferences containing CMS content describing the circumstances under which UIA will contact the customer.

Finally, there is a section informing the user that they should review all the relevant information before continuing. This has links for the following:

* Check details – displays all information entered thus far (Your Details through to Configure Policy).
* Assumptions – displays static content detailing the assumptions about the customer and the property being insured.
* Policy limits – displays static content detailing the monetary limits of the policy.
* Household insurance summary – links to a PDF summarizing the terms of home insurance.
* Key facts – links to a PDF with key points of information about UIA.

#### Fields

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Validation | Notes |
| Do you wish to add an Interested Party? | Radio | Required. | Options are Yes/No. Selecting “yes” reveals subform for adding interested parties. |
| Interested party name/company | Text | Required to add party | Only visible when interested party radio box set to “yes”. |
| Interested party address | Address | Required to add party | Only visible when interested party radio box set to “yes”. See section 2.6.3 for address entry details. |
| Interested party reference | Text | Optional | Mortgage/account number or similar identifier. Only visible when interested party radio box set to “yes”. |
| Interested party effective date | Date | Required | Date from which the party is interested (e.g. start of mortgage payments). Only visible when interested party radio box set to “yes”. |
| Printed copy of documents | Checkbox |  |  |
| Phone contact opt-out | Checkbox |  |  |
| Postal contact opt-out | Checkbox |  |  |
| Car insurance renewal | Dropdown | Optional | Options are a hard-coded list of months. |
| Travel insurance renewal dropdown | Dropdown | Optional | Options are a hard-coded list of months. |

#### Validation

Aside from the validation on the individual fields, there must be at least one interested party added if the interested party radio box is set to “yes”.

#### Onward journeys

The bottom of this page has two submit buttons. One button is labelled “Pay Monthly” and lists the monthly payment price, as well as noting that the monthly payment option is interest free. The other button is labelled “Pay Annually” and lists the one-off price.

Clicking either button will validate the data and take the user to the Pre-Purchase Confirmation Page.

### Pre-Purchase Confirmation Page

#### Purpose

The purpose of this page is to confirm the specific item that the user is about to purchase and to have them confirm acceptance of the website Terms and Conditions.

#### Display

The top of the page displays static content detailing the minimum security warranty that the insured property must adhere to.

The second section lists the product being purchased (e.g. “12 months Building & Contents insurance”), along with the amount to be debited (either the single annual payment or the initial payment and subsequent monthly payments).

If the customer is paying monthly, then there is a direct debit form and beneath this there is a Direct Debit Guarantee (CMS content).

Finally, there is a link to the Terms & Conditions (non-Q&B journey page on the website) for the user to review before confirming their acceptance.

#### Fields

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Validation | Notes |
| Direct debit account holder name | Text | Required if present | Only visible if user selected monthly payment option on previous page. |
| Direct debit sort code | Text | 6 numeric digits. Required if present | Currently presented as three boxes of length 2 with hyphens between. Only visible if user selected monthly payment option on previous page. |
| Direct debit account number | Text | Numeric. Required if present | Only visible if user selected monthly payment option on previous page. |
| Direct debit collection date | Dropdown | Required if present | Options are 1-28. Only visible if user selected monthly payment option on previous page. |
| Direct debit authorisation | Radio | Required if present | Full text: “Does the bank account you wish to use belong to the policyholder? And if so, are you the only person required to authorise debits from the account?”  Options are Yes/No. Only visible if user selected monthly payment option on previous page. |
| Terms & Conditions acceptance | Radio | Required | If the user selects “no” when asked to accept the T&Cs then they should be informed that they are unable to continue (and be prevented from doing so). |

#### Validation

If the user is paying by direct debit and selects “no” in response to the direct debit authorisation question, then they should not be allowed to continue. Instead, they should be presented with text directing them to annual (credit card) payment.

#### Onward journeys

There is a submit button at the bottom of the page, which will validate and send the user to the next page if successful.

If the user is paying monthly (direct debit) then they will be sent to the Direct Debit Confirmation Page (section 2.2.6); if they are paying annually (credit card) then they will be sent to the Payment Page (section 0).

### Direct Debit Confirmation Page

#### Purpose

This page gives the user an opportunity to double check their direct debit details for the last time before completing their purchase.

#### Display

This page displays the direct debit information that the user entered on the previous page, along with some additional information about the account. Specifically, this lists the:

* Name of Account holder
* Bank Sort Code
* Bank or Building Society’s name
* Bank Address
* Bank Account Number
* The initial/ongoing payments to be made
* Date of collection each month

The bank/building society name and address are looked up by a stored procedure in the back office system. The other fields reiterate the information provided on the previous page.

The Direct Debit Guarantee (CMS content) is also displayed again.

#### Onward journeys

If the user has no changes to make, then there is a submit button that completes the transaction by creating BACS record for the direct debit in the back office system. After this they are directed to the purchase confirmation page (section 2.2.8).

### Payment Page

#### Purpose

This page allows the user to enter their credit card information to make a one-off payment. All credit card processing (including data entry) is handled by The Logic Group for PCI compliance. See section 5.5 for more information on payment handling.

#### Display

Currently the page consists entirely of an embedded form, served by TLG. In the new system, this page should be replaced with a redirection to TLG’s Centurion Payment Gateway (section 5.5).

#### Onward journeys

Once the user has completed payment via TLG they are redirected to the Purchase Confirmation Page.

### Purchase Confirmation Page

#### Purpose

This is the final page in the journey, confirming the user’s purchase was successful.

#### Display

The page consists entirely of static and CMS content. There is text thanking the user and informing them that they will be sent E-mails with their login details and policy information.

#### Onward journeys

At the bottom of the page are links to UIAs other insurance offerings.

## Union Selection Page

There is an interstitial page before the quote and buy journey (served by the CMS, not the quote and buy journey) which collects some basic contact information and records the customer’s union.

The selected union affects the branding of the journey (but not functionality), and is passed on to the back office system for quote calculation.

## User Administration

The system needs to provide a mechanism for the user to save quotes, retrieve saved quotes, manage their personal details and to review/renew purchased policies.

The specifics of implementation and arrangement of pages is flexible, as long as all existing functionality remains available and appropriate thought is given to data security.

### Customer Login

There must be some way for the user to log in using an E-mail address and password. Being logged in is a pre-requisite to view the remaining pages in this section. If a non-logged in user visits these pages, they should be redirected to the login page. All sessions should be time limited.

As described in Section 4.1, passwords must be stored in a suitably secure way.

### Password Reset

There must be some way for the user to request a password reset (sent to their E-mail address). It is anticipated that this will include a time limited password reset token, and under no circumstances will passwords be sent over email.

### Saved Quotes

The user must be able to save quotes. Saving a quote should create an account – the user shouldn’t be made to create an account prior to this.

Upon logging in, a user must be able to view a list of saved quotes, identify them in some way and drop back into the journey at the point the quote was saved. All details that were previously entered for that quote should be retained (i.e. the user does not have to enter all of the questions that led to the quote again).

In the current database, saved quotes are policies that are marked as “editable”. Once purchased the quote is marked as non-editable and transitions from being a quote to being a policy.

### Purchased Policies

The user must be able to view a list of policies they have purchased, specifically including the following fields:

* Product
* Policy Number
* Premium
* Dates (start date, end date)

Clicking on a product will bring up details of the relevant policy – in particular the description and cover levels, similar to the Quote Page.

Personalised policy documents are generated by TIA.

### Contact Information Amendment

A user must be able to update their contact details via the customer pages. Whilst only limited details are required to create an account, a user can enter and update any of the following information:

* Title
* Name
* House Number
* Address Line 1
* Address Line 2
* Town
* Postcode
* Date of Birth
* Language
* Zero or more phone numbers, each associated with a type (e.g. home, mobile)
* Occupation
* Sex
* Marital State
* Contact Preferences (stored as a list of preferred/unavailable contact methods)

## Error Pages etc.

The site should also have a standard selection of error pages, including:

* A 404 page
* A page for an unexpected 500 error
* A redirect back to the login page in the event of a session timeout (with a suitable message displayed)
* A redirect backed to the login page in the event of a user attempting to access customer specific pages when not being logged in
* Payment failure

## General UI Features

### Progress Bar

The progress bar is specific to the Quote and Buy journey, as described in Section 2.2. The purpose of the progress bar is to let the customer know how far through the process they are, and how many stages are remaining.

The progress bar appears at the top of every page, and contains the following items:

* Your Details
* Your Quote
* Payment
* You’re Covered

As the customer proceeds through the Quote and Buy journey, the relevant item in the progress bar is highlighted according to which page they are on.

### Informational Tooltips

At various places, the site includes tooltips, giving the customer more information about a field or question that might not be immediately obvious. These are displayed as information icons, which when clicked on brings up an in-page popup containing further details.

### Address Lookup/Entry

There are a few places that require addresses to be entered. These use a standard selection of fields for postcode lookup (see section 5.4) and address entry (if lookup fails). Any fields listed as “required” are required if the address is required, but optional if the address is optional.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Validation | Notes |
| House Number/Name | Text | Required for page submission | Can be set automatically from postcode lookup |
| Post Code | Text | Required for both lookup and submission | Next to the Post Code field there is a “Find my address” button. This performs a postcode lookup and presents the user with a list of options to select from. On selecting an address, the address field will become visible (but not editable) and will be pre-populated with details from the automated lookup. The automated lookup is provided by Experian QAS, based on a service running on UIA servers.  Should there not be a match, the user can click a “Enter the correct address” button which reveals the remaining address fields for manual entry. |
| Address 1 | Text | Required if post code lookup fails | Only visible if postcode lookup fails |
| Address 2 | Text |  | Only visible if postcode lookup fails |
| Town | Text | Required if post code lookup fails | Only visible if postcode lookup fails |
| County | Text | Required if post code lookup fails | Only visible if postcode lookup fails |

# Business Logic & Non-Obvious Data Capture

## Validation Business Logic

This section covers the high level business rules that the system applies during the Quote and Buy journey. These should be checked at all applicable points of the process. The set of rules is as follows:

* Properties that are flats can only get contents insurance
* People that are renting properties can only get contents insurance
* Premiums are recalculated before any purchase/payment is taken, and the purchase is disallowed if any change in price is detected
* The same policy cannot be purchased twice
* Policies cannot be altered once purchased

Should any of these rules mean that a purchase has been disallowed, the user must be given clear feedback as to the reason, and an indication of how to proceed.

In the existing system there was additional logic, such as preventing the purchase of insurance for certain post code areas that were at high flood risk. This is no longer required and thus any prevention of purchase (other than the validation principles laid out above) is handled by TIA rejecting the quote request, as discussed in section 2.2.1.3.

## Affiliate Links

Incoming links from affiliates have a code (e.g. MKTID=TOPC for TopCashback). This is used to retrieve a code from the back office system, which should be included with the rest of the information sent to the back office system when requesting/purchasing a quote. See also section 5.6 (Aggregator in the Cloud).

## Marketing/campaign Numbers

A request may come in with a marketing or campaign number (see affiliate links above also). These represent offers such as “12 months of insurance for the price of 10”.

Marketing/campaign numbers are available to the system for varying text if required, but their primary purpose is to be forwarded on to the back office system to modify the quote accordingly.

# Non-Functional Requirements

This section details the non-functional requirements for the system.

## Security

The Quote and Buy system handles customer data, as well as handling card payments via a third-party. As such all customer data must be stored securely and in line with industry standards.

## Target Platforms and Browsers

The customer-facing pages must target mobile devices and tablets as well as desktop devices. This implies a responsive design approach. Good examples of similar quote and buy journeys are Hiscox, Swiftcover and Confused.

The targeted browser set on desktop is:

* Internet Explorer 10+
* Chrome (latest version)
* Firefox (latest version)
* Safari 9+

The full list of supported devices is not finalised, but is expected to include:

* iPhone 6
* iPad Air
* Galaxy S5, S6
* Tesco Hudl 2

## Performance

We do not currently have details of performance requirements, although low latency will be highly desirable to increase user engagement. UIA should be able to provide further details on the number of expected quotes / bookings in future.

## Accessibility

The Quote and Buy journey must comply with the Disability Discrimination Act (DDA) to the W3.org AA standard.

## Search Engine Optimisation

The site must be designed to perform well in terms of Search Engine Optimisation (SEO). This could take the form of keywords, but consideration should also be given to user engagement – retention and click through of users entering the journey from search engines. This also informs the requirements for configurability (section 4.6) and Google analytics and tracking (section 5.7).

## Configurability

The system must support a high degree of (non-developer) configuration by UIA. Text displayed to the user should be configurable in the CMS and UIA would also like to be able reorder the pages/questions in the Quote & Buy journey to improve customer retention in response to analytics.

In the current system any changes to ordering require extensive development work. The new system should be architected to make such changes as straightforward as possible. Ideally, UIA would be able to add entirely new fields (passed directly through to the back office system) without developer involvement. Failing that it should certainly be very simple to make changes via code updates.

The UIA and Together sites must be independently configurable (see also section 0). In particular, the system must be capable of serving different question sets for the two sites.

The goal here is to maximize the ability for UIA to configure the system and minimize the amount of developer involvement required in future.

## Branding

There will be two separate instances of the quote and buy system in production, one serving the UIA journey and the other serving the Together Mutual journey.

Functionality between these two is identical (subject to different content in the database and CMS), however their branding is not. As such, the system must be able to have a different appearance for each of the instances.

Additionally, there is some light rebranding of the UIA site based on the union selected. Currently this is just the use of the selected Union’s logo in the header, and thus is handled by the CMS.

It is assumed that any branding and appearance changes will be performed by serving different stylesheets.

## Technology

The system must be built in an industry recognised technology, and must be implemented within the current UIA architecture. In particular, it must integrate with the existing Umbraco CMS that is used (see section 5.2).

# Dependencies and Integrations

This section outlines the dependencies and integrations of the current system. They may be subject to change.

## TIA

TIA is the current back office system. It is an Oracle database that stores data entered into the website or taken over the phone. It also has stored procedures for generating quotes based on the information provided.

Currently, communication with TIA is performed via a combination of Java classes representing entities/stored procedures and direct SQL queries over JDBC. TIA is due to be replaced within the next 18 months, thus the new quote and buy system should instead communicate in a backend agnostic manner.

It is presumed that this would involve wrapping the existing entity classes and performing all interaction through this wrapper, minimising the amount of the system that is discarded in the back office update.

## Umbraco

The UIA/Together websites are primarily served by an Umbraco CMS. When the user enters the quote and buy journey, the skeleton of the page is generated by the CMS, which then sends an HTTP request to the system which returns the journey HTML that is inserted verbatim into the page.

The CMS can also be used as source of UIA configurable information such as help text and E-mail content. Sending HTTP requests to the CMS effectively allows it to act as a map from key strings (path parameter on request) to configurable value strings (CMS content returned in response).

## E-mail

The system will need to send E-mails for various reasons (confirmation, renewal, password reset). There is an existing mail server that should be used for this purpose.

## Experian QAS

Postcode lookup is provided by Experian’s QAS system. At the time of writing this is a self-hosted service on the UIA servers, but may soon be moved to an on-demand lookup service. Specifics can be found in the relevant Experian service documentation.

## The Logic Group payment

Payment processing is handled by The Logic Group (TLG). Integration with their Centurion payment gateway involves calling a method from the Java library they provide to start a payment session and return a URL that the user should be redirected to. Once the user has gone through the payment process, they will be redirected back to a URL provided when the session was started. Details can be found in the TLG Centurion documentation which can be provided as part of the development project.

Note that the current system embeds the payment form in the page – the new system will however perform a redirect as described above.

## iWonder AITC

There is an Aggregator in the Cloud (AITC) solution provided by iWonder that handles entry into the system from price comparison websites. The AITC system has quote logic that exactly matches the back office system, allowing them to provide accurate quotes for comparison websites.

If the user clicks through, then iWonder will redirect them to the system and pass the data entered into the comparison website (customer info, etc.). This is used by the quote and buy system to pre-populate fields, skipping some parts of the journey where all the data has already been provided, similar to a user returning to a previously saved quote.

iWonder will be available for collaboration when the replacement system is being written in order to facilitate this integration.

## Google analytics and tracking

Google analytics and tracking are required on the quote and buy journey so that UIA can see where customers drop out of the journey and work to improve retention by reordering/rephrasing questions.