

Tender for development of Application Management System and microservices

About ARB

The Architects Registration Board is the UK's statutory regulator of architects. We are an independent, public interest body, set up by an Act of Parliament in 1997. We are a small organisation with 29 members of staff. You can find out more about the organisation here: <http://www.arb.org.uk/about-arb/>

How to apply:

Responses should be submitted in writing, either by post to:

AMS Tender
ARB
8 Weymouth Street
London
W1W 5BU

or by email to amst@arb.org.uk

Questions should be sent by email to amst@arb.org.uk

Section 1: Introduction

Thank you for taking interest in this tender issued by the Architects Registration Board (ARB). It is essential that you read this document in full before responding to this tender.

All potential tenderers are urged to note as follows:

- 1) Tenderers may be invited to attend a half-day meeting with ARB at its office at 8 Weymouth Street, London, W1W 5BU, during the period **16 September to 27 September 2019**.

Tenderers should be available to assist ARB with the scheduling of meetings and are likely to be contacted for this purpose between 5 September and 11 September 2019.

ARB will make every reasonable effort to be flexible in the scheduling of these meetings, but ultimately if a tenderer is unable to send its representatives in person to attend such a meeting, then that tenderer is likely to find itself at a significant disadvantage and ARB will not engage in any compensatory or corrective measures.

- 2) This tender is for a contract to develop a blend of software solutions (one app and several microservices) and an Identity and Access Management System (IAMS) solution. The requirement for an IAMS could be satisfactorily fulfilled either by a bespoke software solution, or by the use of an existing “off-the-shelf” IAMS solution, or by some integrated mix of the two. However, ARB will not split or separate the tender objectives. In order to tender successfully, tenderers must be able to fulfil all of the stated objectives within the scope of a single unified contract.
- 3) Tenderers must complete Section 3 of this document in full and return it to ARB by no later than **5pm 30 August 2019 UK BST**.
- 4) For clarity, in this document terminology is used as follows:
 - **Application** or **applications** refers to the process, proforma and evidence by which an individual applies to join or re-join the UK Register of Architects;
 - **App** or **apps** refers to a software application, computer program, microservice or similar.

Section 2: General Information

About the Architects Registration Board

ARB was established by Parliament in 1997 to regulate the architects' profession in the UK. We are an independent, public interest body and our work in regulating architects ensures that good standards within the profession are consistently maintained for the benefit of the public and architects alike.

Our duties are contained in the 1997 Architects Act, and cover five main areas:

- Prescribing – or 'recognising' the qualifications needed to become an architect
- Keeping the UK Register of Architects
- Ensuring that architects meet our standards for conduct and practice
- Investigating complaints about an architect's conduct or competence
- Making sure that only people on our register offer their services as an architect.

Our work is overseen by a board of 11 members.

More information about ARB can be found on the ARB web site at:

<http://www.arb.org.uk/about-arb/>

Tender objectives

ARB is conducting this tender for the procurement of software development and system implementation services to meet the following objectives:

Objective 1 – Identity and Access Management System for Apps (IAMS)

Design, develop and deploy a new IAM system that meets the requirements specified in Appendix 1.

Objective 2 – Registration Data Microservice (RDM)

Design, develop and deploy a tiny microservice to expose some data from a source Microsoft SQL Server database, for consumption by downstream apps. The shape of this proposed microservice is described at Appendix 2.

Objective 3 – Pre-Application Waivers Microservice (PAWM) and GUI

Design, develop and deploy a medium-sized microservice to provide Application Fee Waivers functionality for end users. The shape of this proposed microservice is described at Appendix 3.

Objective 4 – Application Fee Due Microservice (AFDM) and GUI

Design, develop and deploy a medium-sized microservice and accompanying GUI to provide functionality for the management and administration of an Application Fee Schedule; and to provide functionality for the calculation of fees in accordance with corresponding policy; and to provide functionality for the validation of End User input relating to Application Fees. The shape of this proposed microservice is described at Appendix 4.

Objective 5 – Integration of Microservices with Online Application Portal

Provide ARB with a sufficient quantity of software development expertise to integrate its existing legacy Online Application Portal (ASP .NET Web App) with the new microservices (e.g. RDM, PAWM, AFDM) mentioned above. A summary of the required integrations is at Appendix 5.

Objective 6 – Application Management System (AMS) app

On the basis of existing design materials (see wireframes at Appendix 7 and notes at Appendix 8) develop and deploy a new Application Management System. The proposed AMS is a case management app for use by ARB's Registration Team primarily for the purpose of processing applications to join (or re-join) the UK Register of Architects. The AMS app is described further at Appendix 6.

Objective 7 – Working Time Elapsed Microservice (WTEM) and GUI

Design, develop and deploy a tiny microservice to calculate the quantity of working time elapsed between two events. Implement a corresponding end user GUI for the purpose of recording bank holidays and any other non-working calendar days.

Objective 8 – Passlist Portal App Modifications

ARB operates an ASP .NET application called the Passlist Portal (PLP) which is used to track Schools of Architecture, the Courses each School offers, and the associated Passlists which identify students who have completed each Course.

- (i) Design and develop a simplistic API to allow other apps to consume data from the Passlist Portal app database, specifically Schools data and Courses data.
- (ii) Modify the legacy PLP app to implement a GUI-centric Search API to be leveraged by users from the AMS app

- (iii) Integrate the legacy PLP app with the new IAMS (permanently displacing the existing PLP-specific authentication model).

Supplemental Support Service Offerings

ARB is open to tenderers offering the following supplementary services as part of their proposal but there is no requirement to do so. If a proposal does include any of these services, they must be offered as “optional extras” which ARB may separately accept or refuse.

Option 1 – Contract for Support and Maintenance of the IAMS System

A fixed term support and maintenance and contract for the new IAMS. The contract might include one or more of the following:

- Product Support – investigating, troubleshooting and resolving any issues that are preventing the IAMS from operating as it should (whether in isolation or in interaction with other systems);
- Development Support – providing expertise to assist with app integrations and related software/system development efforts;
- Availability Guarantee – guaranteeing the availability of the IAMS and undertaking to resolve any availability issues in a timely fashion;
- Technical Support – providing assistance to IAMS Administrators with day-to-day administrative tasks;
- End User Support – providing assistance to end users experiencing app access and authentication issues.

Option 2 – Contract for Support and Maintenance of AMS app and Microservices Implementation

A fixed term support and maintenance and contract for the new AMS app and for the new RDM, PAWM, AFDM and WTEM microservices. The contract might include one or more of the following:

- Product Support – investigating, troubleshooting and resolving any issues that are preventing the software from operating as it should (in isolation or in interaction with other systems);
- Availability Guarantee – guaranteeing the availability of the software and undertaking to resolve any availability issues in a timely fashion;
- Development Support – providing expertise to assist with any ongoing app integrations and related software/system development efforts;
- End User Support – providing assistance to end users experiencing difficulties or problems.

Tender Procedure and Deadlines

Initially tenderers should complete Section 3 of this document in full and return it to ARB by no later than **5pm 30 August 2019 BST**. Any submissions received by ARB later than this deadline will be ruled out without further consideration.

ARB is happy to accept returns of Section 3 by email but tenderers do so entirely at their own risk (because email messaging does not confer any assurance of delivery.)

The tendering process will then continue as follows:

Stage 1

ARB will evaluate all Section 3 returns and then invite a maximum of five companies to participate in Stage 2.

All companies that submitted valid Section 3 returns, and that are not invited to participate in Stage 2, will be notified of this decision by **4 September 2019**.

Stage 2 – Meeting with ARB

Tenderers will each be invited for a one-off, half-day meeting with ARB representatives at ARB's office at 8 Weymouth Street, London, W1W 5BU.

The half-day meeting will either be morning (from 9:30am to 12:30pm) or afternoon (from 1:30pm to 4:30pm).

The purposes of the meeting with ARB is:

- For the tenderer to introduce themselves and, should they wish to do so, to present any relevant examples of their work;
- For the tenderer to ask general questions and further understand the business requirements that have given rise to the tender and its objectives;
- For the tenderer to ask technical questions;
- For ARB representatives to ask the tenderer for any additional information or clarifications pursuant to their Section 3 return;
- To facilitate an exchange of information and ideas that places the tenderer in an improved position to provide ARB with its final formal (written) proposal.

ARB representatives will include ARB's IT technical specialist and one or two senior members of ARB's Registration Team.

All meetings will take place during the period **16 September to 27 September 2019**. ARB will endeavour to be reasonably flexible when scheduling meetings.

Stage 3 – Submission of Proposals

Tenderers will be expected to formulate and submit a formal proposal by no later than **5pm 7 October 2019 BST**.

Any proposal received by ARB later than this deadline will be ruled out without further consideration.

ARB is happy to accept proposals by email but tenderers do so entirely at their own risk (because email messaging does not confer any assurance of delivery.)

Stage 4 – Evaluation of Proposals

ARB will assess proposals received and determine a winner by **14 October 2019**.

During this stage ARB may contact tenderers strictly for the purpose of clarifying the content of a proposal.

During this stage ARB won't seek to obtain additional factual information from tenderers that was omitted from their original proposal. It is the responsibility of tenderers to ensure that all relevant information is included with their proposal submitted at Stage 3.

Unsuccessful tenderers will be notified by **15 October 2019**.

ARB undertakes to make every reasonable effort to keep to the deadlines and procedure outlined above, but reserves the right to make changes where it deems that doing so is necessary to complete a satisfactory and fair tender exercise.

Section 3: Tender

Tenderers should complete this section and return it by no later than **5pm 30 August 2019 BST** .

The return address is:

AMS Tender
ARB
8 Weymouth Street
London
England
W1W 5BU

Alternatively, tenderers may submit a return by email to: amst@arb.org.uk

For all parts of this section:

- State 'N/K' if the answer to a question (or part thereof) is not known;
- State 'N/A' if a question (or part thereof) is inapplicable.

1) Company Details

Full name:	
Registered office address:	
Registered/corporate website address:	
Trading status:	(i) public limited company (ii) limited company (iii) limited liability partnership (iv) other partnership (v) sole trader (vi) third sector (vii) other (please specify):
Country of origin (if not United Kingdom):	
Date of registration in country of origin:	
Company registration number:	
VAT registration number:	
Alternative trading names or aliases (if any):	

2) Immediate Parent Company Details

Full name:	
Registered office address:	
Registered/corporate website address:	
Trading status:	(i) public limited company (ii) limited company (iii) limited liability partnership (iv) other partnership (v) sole trader (vi) third sector (vii) other (please specify):
Country of origin (if not United Kingdom):	
Date of registration in country of origin:	
Company registration number:	
VAT registration number:	
Alternative trading names or aliases (if any):	

3) Ultimate Parent Company Details

Full name:	
Registered office address:	
Registered/corporate website address:	
Trading status:	(i) public limited company (ii) limited company (iii) limited liability partnership (iv) other partnership (v) sole trader (vi) third sector (vii) other (please specify):
Country of origin (if not United Kingdom):	
Date of registration in country of origin:	
Company registration number:	
VAT registration number:	
Alternative trading names or aliases (if any):	

4) Contact Details**Please provide contact details for the person in your company who is primarily responsible for this tender**

Full name:	
Position in company:	
Contact telephone number:	
Contact telephone number:	
Contact email address:	

Presuming your company's tender is successful, please identify the person in your company who will be ultimately responsible for technical delivery and implementation of the solutions your company will provide to ARB

Full name:	
Position in company:	
Contact telephone number:	
Contact telephone number:	
Contact email address:	

5) Convictions and Offences

Has your company or any directors or partner or any other person who has powers of representation, decision or control been convicted of any of the following offences? Please answer each item 'Yes' or 'No'.

a)	conspiracy within the meaning of section 1 of the Criminal Law Act 1977 where that conspiracy relates to participation in a criminal organisation as defined in Article 2(1) of Council Joint Action 98/733/JHA (as amended);	
b)	corruption within the meaning of section 1 of the Public Bodies Corrupt Practices Act 1889 or section 1 of the Prevention of Corruption Act 1906 (as amended);	
c)	the offence of bribery;	
d)	fraud, where the offence relates to fraud affecting the financial interests of the European Communities as defined by Article 1 of the Convention relating to the protection of the financial interests of the European Union, within the meaning of:	
	(i) the offence of cheating the Revenue;	
	(ii) the offence of conspiracy to defraud;	
	(iii) fraud or theft within the meaning of the Theft Act 1968 and the Theft Act 1978;	
	(iv) fraudulent trading within the meaning of section 458 of the Companies Act 1985 or section 993 of the Companies Act 2006;	
	(v) defrauding the Customs within the meaning of the Customs and Excise Management Act 1979 and the Value Added Tax Act 1994;	
	(vi) an offence in connection with taxation in the European Community within the meaning of section 71 of the Criminal Justice Act 1993; or	
	(vii) destroying, defacing or concealing of documents or procuring the extension of a valuable security within the meaning of section 20 of the Theft Act 1968;	
e)	money laundering within the meaning of the Money Laundering Regulations 2017; or	
f)	any other offence within the meaning of Article 57(1) of the Public Contracts Directive.	

6) Breaches of Tax Obligations

Please indicate by stating 'Yes' or 'No', if it has been established, for your organisation by a judicial or administrative decision having final and binding effect in accordance with the legal provisions of any part of the United Kingdom or the legal provisions of the country in which the organisation is established (if outside the UK), that the organisation is in breach of obligations related to the payment of tax or social security contributions?

If you have answered 'Yes' to the question above, then please provide all relevant additional details below. Please also indicate whether or not you have paid, or have entered into a binding arrangement with a view to paying, the outstanding sum including where applicable any accrued interest and/or fines; use a separate attachment if necessary.

7) Breaches of Regulations or Ethics

Please indicate by stating 'Yes' or 'No', if, within the past three years, anywhere in the world any of the following situations have applied to you, your organisation or any other person who has powers of representation, decision or control in the organisation:

-Breach of environmental obligations?	
-Breach of social obligations?	
-Breach of labour regulations or labour law?	
-Bankrupt or is the subject of insolvency or winding-up proceedings, where the organisation's assets are being administered by a liquidator or by the court, where it is in an arrangement with creditors, where its business activities are suspended or it is in any analogous situation arising from a similar procedure under the laws and regulations of any State?	
-Guilty of grave professional misconduct?	
-Entered into agreements with other economic operators aimed at distorting competition?	
-Shown significant or persistent deficiencies in the performance of a substantive requirement under a prior public contract, a prior contract with a contracting entity, or a prior concession contract, which led to early termination of that prior contract, damages or other comparable sanctions?	

If you have answered 'Yes' to any of the items above, then please provide a detailed explanation of what happened below. Please provide an explanation in relation to each incident or situation (if more than one); use a separate attachment if necessary.

8) Company Policies/Social Responsibility	
Does your company have a formal (written) Equality and Diversity policy? (Yes or No)	
If you have answered 'Yes' to the question above, then is the policy published? - E.g. the policy is downloadable from a public web site? (Yes or No)	
If you have answered 'Yes' to the question above, please state where the policy can be found (e.g. specifying a web page url) or how a copy of the policy can otherwise be obtained.	
Does your company have a formal (written) Corporate Social Responsibility policy? (Yes or No)	
If you have answered 'Yes' to the question above, then is the policy published? - E.g. the policy is downloadable from a public web site? (Yes or No)	
If you have answered 'Yes' to the question above, please state where the policy can be found (e.g. specifying a web page url) or how a copy of the policy can otherwise be obtained.	
<p>Please indicate by stating 'Yes' or 'No' whether or not your company pays all of its employees the Living Wage?</p> <p>(As of 1 November 2018 the Living Wage is £10.55 per hour in London and £9.00 per hour in the rest of the UK. Further details can be found at www.livingwage.co.uk)</p>	

9) Information Security and Information Assurance

Does your company have a formal (written) Information Security policy with which your staff must comply? (Yes or No)	
Does your company have a formal (written) policy governing the Use of Information Technology Systems with which your staff must comply? (Yes or No)	
Does your company facilitate staff working at physical locations other than your company's own premises? (Yes or No)	
If you have answered 'Yes' to the question above, then, is there a formal (written) policy that specifically addresses risks arising from authorised access to private networks from remote locations? (Yes or No)	
Please indicate whether or not your company has a named appointed officer whose formal responsibilities include each of the following items. (If there is such an officer in place, identify them by their name and job title. If there is no such officer in place, state 'None')	
-Physical and environmental security for IT systems?	
-Physical and environmental security for assets containing confidential data?	
-Information Assurance (meaning risk assessment and risk management processes and controls, specifically related to confidential information and sensitive data)?	
-Network security controls (e.g. firewalls, IPS et.al.)?	
Please indicate by stating 'Yes' or 'No' whether or not each of the listed security counter-measures is implemented by your company on a routine (i.e. repetitive/continual) basis?	
-Centrally-managed anti-virus	
-Malware protection software for 100% of desktop endpoints/devices	
-A regime for software patching and operating system updates	
-Password policy (defined and enforced by software, e.g. Active Directory Policy or similar)	
-Perimeter and intrusion security (i.e. firewall and/or IPS)	
-Network penetration testing	
-Vulnerability scanning	
-Phishing simulation exercises	
-Staff/End User training and awareness program relating to data security and/or information risks	

-Encryption at rest for all data stored on portable devices	
-Maintaining an up-to-date inventory of devices and assets containing confidential information	
Please list any industry-recognised certifications or endorsements that have been attained by your company, that are in good standing and that directly relate to Information Security or Cybersecurity? (e.g. Cyber Essentials, ISO 27001)	

10) Economic and Financial Standing/Insurance

If requested, is your company able to provide a copy of audited accounts for the last two years?
(Yes or No)

If you have answered 'No' to the question above, then, if requested is your company able to provide a copy of one of the following:

- (a) A statement of the turnover, Profit and Loss Account/Income Statement, Balance Sheet/Statement of Financial Position and Statement of Cash Flow for the most recent year of trading for this organisation; OR
- (b) A statement of the cash flow forecast for the current year and a bank letter outlining the current cash and credit position; OR
- (c) Alternative means of demonstrating financial status if none of the above is available (e.g. forecast of turnover for the current year and a statement of funding provided by the owners and/or the bank, charity accruals accounts or an alternative means of demonstrating financial status?
(Yes or No)

If you have answered 'No' to the question above, then, please explain in 100 words or fewer, why your company or organisation is unable to provide any of the above-mentioned items.

In the case of each of the listed types of insurance, please indicate whether or not your company has a policy in place by stating the level (quantity) of cover provided. If no policy is in place of the specified type, then state 'None'.

Please only indicate that a policy is in place where you have good reason to believe that that policy (or an equivalent alternative policy of the same type) will continue to provide at least the same level of cover through to the end of 2020.

-Employer's (Compulsory) Liability Insurance

(e.g. £ 5m)

-Public Liability Insurance

-Professional Indemnity Insurance

-Business Disruption Insurance

-Cybersecurity Incident Insurance (or similar)

11) Company/Ethos/Mission Statement

Please make a statement of 200 words or fewer that explains your company's ethos and/or its mission statement and/or its corporate values.

12) Technological Partnerships and Endorsements for Software Development and/or Systems Development

Some large vendors, enterprise-level providers and software specialists run partnership programs, certifications and/or endorsements that are designed to demonstrate technical excellence and/or a channel of exclusivity that can ultimately deliver enhanced value for end-user clients such as ARB.

An example of a partnership program relevant to software development is the Partnership Network (and its associated Competencies and Silver/Gold membership levels) run by Microsoft.

Please list any technological partnerships or endorsements in which your company is enrolled. Please only list those partnerships/endorsements that are currently in good standing and in which your company is presently active. Please only list partnerships/endorsements which are obviously relevant to the tender objectives.

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10)	

13) Software Development Stacks / Products / Components

Focusing specifically on Objective 1 (Identity and Access Management System) please specify the software development platforms, products and/or operating systems that your company is most likely to use to construct and/or provision this solution for ARB if your company is awarded the tender. **200 words or fewer.**

To what extent, if any, are the platforms, products and/or operating systems specified above, licensed under “Open Source” agreements? State ‘Open’ if everything is open source; ‘None’ if nothing is open source; or ‘Partial’ if the likely solution is a mix of open source and closed.

Focusing specifically on Objectives 2, 3 and 4 (Microservices) please specify the software development platforms, products and/or operating systems that your company is most likely to use to build these solutions for ARB if your company tenders successfully. **200 words or fewer.**

Focusing specifically on Objectives 6 (Application Management System app) please specify the software development platforms, products and/or operating systems that your company is most likely to use to construct and/or provision this solution for ARB if your company tenders successfully. **200 words or fewer.**

14) Development Methodology

Please describe the software development methodology that your company is most likely to use to construct and provision solutions for ARB if your company is awarded the tender.

If your company is likely to use different methodologies to meet different objectives, do explain each. Please use a total of **500 words or fewer**.

15) White-label and Third Party Services

As a matter of principle ARB has no objection to solutions that incorporate White-labelled services and/or Third-party service offerings. However ARB does expect transparency as to the use of such services, especially where they may lead to sustained operational costs.

If your company is likely to incorporate any such services as part of the solutions you construct and provision for ARB, then please identify those services here. Please be as explicit as possible, for example 'Amazon Elasticsearch Service' is better than 'AWS'.

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16) Ownership of Intellectual Property

ARB strongly desires to secure perpetual exclusive ownership of all intellectual property developed under any contracts signed pursuant to this tender (excluding any software or systems covered by Open Source licensing).

ARB's view is that its ownership of intellectual property reduces risk and maximises return-on-investment because it leaves ARB free to modify and extend the software and systems further unconditionally and without hindrance.

If your company is able to acquiesce to this requirement for ownership please state 'Yes' in the box below.

Otherwise, please explain in **300 words or fewer** :

- a) The arrangements that your company is likely to be able to offer as to ownership of intellectual property and software licensing;
- b) Details of any compensatory arrangements which can assist ARB in its aims to reduce risk and maximise return-on-investment.

17) Reference implementation of IAMS (Relevant Experience)

Objective 1 is the implementation of an Identity and Access Management System (with the detailed requirements described at Appendix 1). In order to help establish relevant experience, please identify a similar project that your company has undertaken and successfully completed in the past three years.

The named contact provided below should be able to provide written evidence to confirm the accuracy of the information given.

-IAMS project name	
-Customer name (company or organisation name)	
-Customer contact name	
-Customer contact position in company	
-Customer contact telephone number	
-Customer contact email address	
-Total project value (£)	
-Project start date (Approx. date contract signed)	
-Project end date (Approx. date of completion)	

In 300 words or fewer, please explain how the requirements/outcomes for the cited project are relevant to Objective 1 of this tender; and briefly highlight any key differences between the cited implementation and your understanding of the proposed ARB implementation.

If your company is unable to provide a relevant example, please explain why **in 100 words or fewer**.

Please indicate by stating 'Yes' or 'No' whether or not the customer contact specified above is willing to be contacted by ARB to discuss the relevant project? (Please note that if your response is 'Yes' then ARB may try to make contact at any time without giving further notice.)

18) Reference implementation of Case Management App (Relevant Experience)

Objective 6 is the implementation of an Application Management System (with the detailed requirements described at Appendices 6, 7 and 8). In order to help establish relevant experience, please identify a similar project that your company has undertaken and successfully completed in the past three years.

The named contact provided below should be able to provide written evidence to confirm the accuracy of the information given.

-Project name	
-Customer name (company or organisation name)	
-Customer contact name	
-Customer contact position in company	
-Customer contact telephone number	
-Customer contact email address	
-Total project value (£)	
-Project start date (Approx. date contract signed)	
-Project end date (Approx. date of completion)	

In 300 words or fewer, please explain how the requirements/outcomes for the cited project are relevant to Objective 6 of this tender. Please highlight key similarities in features or functionality.

If your company is unable to provide a relevant example, please explain why **in 100 words or fewer**.

Please indicate by stating 'Yes' or 'No' whether or not the customer contact specified above is willing to be contacted by ARB to discuss the relevant project? (Please note that if your response is 'Yes' then ARB may try to make contact at any time without giving further notice.)

19) Reference implementation of Microservices (Relevant Experience)

Objectives 2, 3, 4 and 7 are for the implementation of several new microservices. For ARB, the implementation of these microservices will represent an initial investment in microservice-oriented software architecture. To help establish relevant experience, please identify one or more microservices projects that your company has successfully completed in the past three years.

The named contacts provided below should be able to provide written evidence to confirm the accuracy of the information given.

-Microservice project name #1	
-Microservice project name #2	
-Microservice project name #3	
-Customer name (company or organisation name)	
-Customer contact name	
-Customer contact position in company	
-Customer contact telephone number	
-Customer contact email address	
-Total project value (£)	
-Project start date (Approx. date contract signed)	
-Project end date (Approx. date of completion)	

In 300 words or fewer, please explain the functionality and purposes of the microservices cited above

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If your company is unable to provide a relevant example, please explain why **in 100 words or fewer**.

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Please indicate by stating 'Yes' or 'No' whether or not the customer contact specified above is willing to be contacted by ARB to discuss the relevant project? (Please note that if your response is 'Yes' then ARB may try to make contact at any time without giving further notice.)

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20) Commercial Rates for software Development

If your company applies a set of standardised commercial rates to software development effort, please provide a summary of those rates below. If other commercial arrangements are likely to apply, please briefly explain the structure of those arrangements. In either case, use 200 words or fewer.

ARB recognises that tenderers may each work in quite different ways, for example, one tenderer might standardise charges by the day or by the hour whereas another might standardise charges per sprint development cycle. Rates may vary based on job role (for example, the work of a junior developer might be charged at a lower rate than the work of a project manager) or a flat rate may apply. ARB also recognises that some companies may work only on a fixed-cost per-project ('waterfall') basis.

For the avoidance of doubt, tenderers are not expected to provide detailed commercial proposals at this stage of the tender.

21) Allocation of Personnel

Taking all of the tender objectives and the total effort required to meet them into account, please describe the mix of personnel (in percentage terms) that your company is likely to allocate. In your response to this question, please consider all stages of the project lifecycle, from initial requirements capture through to testing, QA and final deployment of software and systems into production use. (Any proposed subsequent support and maintenance effort ought not to be included.)

Personnel job descriptions are suggested below but please change these as necessary to most-accurately answer the question.

Software Solutions Architect	%
Senior Technical/Project Manager	%
Technical/Project Manager	%
Senior Software Engineer	%
Software Engineer	%
Senior Programmer	%
Programmer	%
Quality Assurance Lead	%
Quality Assurance Tester	%
UX Engineer	%
UX Designer	%
Senior Business Analyst	%
Business Analyst	%
Chief Technology Officer	%
Director	%
Business Manager	%
Client Relationship Manager	%

22) Subcontracting Labour / Offshore Resources

a)	<p>Only in relation to the following types of work:</p> <ul style="list-style-type: none"> • Project management • Solutions design and/or software architecture • Software implementation (e.g. coding, programming, GUI development) <p>Please indicate by stating 'Yes' or 'No' whether or not your company has within the past year sub-contracted (i.e. outsourced to other companies) any of its work?</p>	
	<p>If you answered 'Yes' to the question above, then please estimate the percentage of total work carried out that was sub-contracted?</p>	%
	<p>If you answered 'Yes' to the question above, then please estimate the percentage of the sub-contracted work that was ultimately carried out by offshore companies or entities?</p> <p>(For the purpose of the questions in this section, an offshore entity is any that is not permanently located in the United Kingdom.)</p>	%
b)	<p>Only in relation to the following types of work:</p> <ul style="list-style-type: none"> • Software testing • Software bug resolution • Software quality assurance <p>Please indicate by stating 'Yes' or 'No' whether or not your company has within the past year sub-contracted (i.e. outsourced to other companies) any of its work?</p>	
	<p>If you answered 'Yes' to the question above, then please estimate the percentage of total work carried out that was sub-contracted?</p>	%
	<p>If you answered 'Yes' to the question above, then please estimate the percentage of the sub-contracted work that was ultimately carried out by offshore companies or entities?</p>	%
c)	<p>Is any part of your company's workforce offshore? 'Yes' or 'No'</p>	
	<p>If you answered 'Yes' to the question above, then please estimate the percentage of your workforce that is offshore?</p>	%

23) Client Engagement

In 200 words or fewer, please describe your company's preferred methods of engagement with (and of providing feedback to) clients when working on projects of the approximate size and scale described by this tender?

If your company provisions (or uses) online services for engagement, feedback, and/or progress tracking (i.e. on the basis that your clients will subscribe directly to those services in order to engage and track progress) then please name those services here:

1)

2)

Please explain, **in 200 words or fewer**, the extent, if any, to which your company typically provides clients with real-time access to resources and assets as a project progresses. Examples might include:

- Providing clients with access to staging environments for regular reviews of built outputs
- Shipping developed code (or similar assets) to the client on a regular basis during the project lifecycle
- Providing the client with interactive demonstrations of software-under-development at regular intervals

24) Quality Assurance

Please describe, **in 300 words of fewer**, the quality assurance processes that your company incorporates as part of its standard methodology when tasked with the production of bespoke software components and solutions?

25) Solution Provisioning and Deployment

ARB will want its staff to actively participate in User Acceptance Testing and Feedback (UAT). In order to meet this specific requirement, how will your company deliver/deploy the software and/or solutions that it has created? Please explain **in 100 words or fewer**

To what extent, if any, will your company provision a UAT environment and infrastructure? Please explain **in 100 words or fewer**

When the developed software and solutions are finally ready to be brought in to production use, how will your company deliver/deploy them for ARB's users? Please explain **in 100 words or fewer**

26) Best Value Proposition

Taking all of the objectives that are in scope into consideration, please explain the reasons why ARB ought to choose your company as its solution provider?

How does your company and its solutions differ from competitors in ways that deliver greater benefits and value to end clients?

What are the most compelling and persuasive arguments that favour ARB choosing to work with your company to deliver the software and systems described by this tender?

Please explain in 500 words or fewer

27) Tender's Warranties/Declaration

Tenderer's Warranties

In submitting its tender, the tenderer warrants, represents and undertakes to ARB that:

- a) all information, representations and other matters of fact communicated (whether in writing or otherwise) to ARB by the tenderer, its staff or agents in connection with or arising out of the tender are true, complete and accurate in all respects, both as at the date communicated and as at the date of tender submission;
- b) it has full power and authority to enter into the contract and perform the obligations specified in the contract documents;
- c) it is of sound financial standing and has and will have sufficient working capital, skilled staff, equipment and other resources available to it to perform the obligations specified in the contract;
- d) it will not at any time during the term or at any time thereafter claim or seek to enforce for the purposes of this contract any lien, charge, or other encumbrance over property of whatever nature owned or controlled by ARB and which is for the time being in the possession of the tenderer.
- e) it shall indemnify and keep indemnified ARB against all actions, claims, demands, costs and expenses incurred by or made against, ARB in respect of any loss or damage which arises from any advice given or anything done or omitted to be done under this contract to the extent that such loss or damage is caused by the negligence or other wrongful act of the contractor or agents.
- f) it shall have in place a policy or policies covering all the matters which are the subject of the indemnities and undertakings on the part of the contractor contained in this contract, which will be agreed but at least in respect of one incident and unlimited in total, unless otherwise agreed by ARB in writing.

Declaration

- 1) Employment Discrimination - ARB prides itself promoting inclusion and diversity. The tenderer undertakes that it shall not unlawfully discriminate within the meaning of any relevant legislation or any statutory modification or re-enactment thereof relating to discrimination in employment whether by race, disability, age, gender, religion and belief, sexual orientation or transgender identity. The tenderer shall take all reasonable steps to ensure the observance of these provisions by all employees or agents and all sub-contractors employed in the execution of the contract pursuant to the tender;
- 2) The tenderer acknowledges and accepts that ARB is not bound to accept any proposal, tender or any part thereof.

Signature.....

Print name..... **(Position)**.....

For and on behalf of:.....

(Tenderer's full official registered company/organisation name)

Appendix 1

Identity and Access Management System for Apps (IAMS)

The objective is to create an app-centric Identity and Access Management System the fundamental purposes of which are:

- 1) To provide a centralised IAMS resource serving multiple apps operated by ARB staff and ARB external stakeholders
- 2) To provide identity, authentication, access and authorisation services for apps and users operating in both trusted and untrusted (hostile) zones
- 3) To provide unified, consistent and reliable authentication experiences for end users
- 4) To enable the use of granular security policies by ARB security administrators
- 5) To provide centralised administration for defining and managing app roles, permissions and user groups
- 6) To provide APIs that streamline the integration of custom apps with the IAMS system (e.g. for authorisation queries and RBAC-style implementations)
- 7) To provide self-service for app end users to lower support and administration burdens
- 8) To interface with Microsoft Active Directory where necessary
- 9) To provide excellent standards of security and reliability

It is ARB's intention that the PAWS and AFDM microservices will be the first apps to integrate with the new IAMS; and that the new AMS app will integrate with the new IAMS too. The IAMS implementation is therefore a prerequisite to the implementation of all three of these other software solutions.

More specific features and requirements for the IAMS are:

- Enable 'app switching' without necessitating re-authentication (e.g. SAML-style); and a unified standard authentication experience for end-users
- Enable flexible security policies (e.g. 'Re-authenticate after N minutes', 'Re-authenticate for unknown IP addresses' et.al); and enable location/zone-based security policy.
- IAMS to provision and manage App Roles and App Permissions, in addition to Identity and Access
- High degree of inter-operability. It must be a system that is inter-operable with 3rd party apps and services for the purposes of Authentication, Identity Management and Authorization using Roles and Permissions.
- Should be a system that inter-operates using recognised vendor-agnostic interoperability standards wherever possible. All parts of the IAMS that interoperate using vendor-specific or non-standardised APIs must be completely and properly documented.
- To the extent that it is possible to do so, "provisioning and configuring" a system is preferred to "developing" one, especially if it possible to use components that are well-recognised and peer-reviewed by the IAM community-at-large.

- Fully open-sourced software that has been subject to extensive peer review, coupled with commercial-grade support, is ideal (but this does not preclude proposals that take a different approach)
- Three mutually exclusive classes of Users : 1) Internal 2) External 3) Extranet
- Internal users:
 - Will always be members of ARB's internal Active Directory (AD)
 - Will always operate Apps inside ARB's internal LAN
 - Must be able to leverage SSO transparently as a natural extension of their MS Windows desktop (Active Directory) login
 - Will not require 2FA
 - No self-service functions
 - Will be in scope for the initial rollout of the new IAMS
- External users:
 - Will not be members of ARB's internal Active Directory (AD)
 - Will operate Apps from Untrusted Public (hostile) networks
 - May be required to two-factor-authenticate – this should be configurable based on flexible criteria (e.g. “force 2FA if user tries to access app X or app Y”, “force 2FA if user is a member of Role A, B or C” etc.)
 - 2FA by Mobile (an IAMS administrator has registered their mobile in the IAMS)
 - Password Policy (Minimum length is the main concern)
 - Security Policy (Lockout)
 - Reset password self-service
 - Will be in scope for the initial rollout of the new IAMS
- Extranet users:
 - Will always be members of a separate ARB-owned extranet Active Directory (AD)
 - There will be no trust Relationship between the Extranet AD and Internal AD
 - Will always operate Apps inside ARB's Extranet AD
 - Must be able to leverage SSO transparently as a natural extension of their MS Windows desktop (Active Directory) login
 - Will not require 2FA
 - No self-service functions
 - Will not be in scope for the initial rollout of the new IAMS

Important: The stated “Extranet Users” requirement is a preliminary requirement intended to “future-proof” the IAM. The activation of an extranet class of users will depend upon ARB’s future ISR strategy decisions. The IAMS must have been built ready to accommodate a strategy that results in the commissioning of an extranet, and in particular, it must be possible to do a one-off transition of users from the External class to the Extranet class without necessitating a development cycle or a technically-demanding resource-intensive re-configuration.

Important: One key measure of success for the delivery of the software solutions described by this tender is that the user journey between software components and across app boundaries should be seamless and well-integrated. Together with fundamental software design choices, the functionality of the IAMS is likely to be critical to realising a smooth user journey between (and within) apps.

Appendix 2

Registration Data Microservice (RDM)

This microservice will operate as a simplistic middle-tier between ARB’s Register database (which is a Microsoft SQL Server database) and various other microservices or apps that need to retrieve and consume data from that database.

The key upstream clients are:

- the new PAWM microservice;
- the new AMS app;
- and the legacy Online Applications Portal.

The following table serves to iterate (in non-technical terms) the inter-activities between these software components in a little more detail, in order to illustrate the shape and scale of this microservice.

Integration with the PAWM microservice

When an end user intends to issue a pre-application waiver to a previously registered individual, search the Registration Database for individuals whose name was previously registered and is now removed

- Search by Surname
- Or by Registration Number

When the PAWM microservice needs to check if a previously-issued waiver remains valid (e.g. when an attempt is made to authorise it) - search the Registration Database to check the status of a registered individual

- Search by Registration Number

Integration with the Online Applications Portal

When an Applicant wants to identify them self as they proceed with an application to re-join the Register; search the Registration Database for individuals whose name was previously registered, and return additional data about the reason their name was removed (and when it was removed) from the Register.

- Search by Surname, Forenames
- Or by Registration Number
- Or by Email Address [if Published]

When the Online Applications Portal can load data to pre-populate form values for an application to re-join the Register; retrieve data from the Registration Database pertaining to a specific individual

- Query the Registration database by Registration Number

Integration with the AMS app

When an end user needs to verify a Registration Number (and the identity of an ex-registrant) as part of the creation of a new re-join application based on a hard-copy submission; search the Registration Database for individuals whose name was previously registered, and return additional data about the reason that their name was removed (and when it was removed) from the Register

- Search by Registration Number

In the context of an end user working the checklist of an application, where the checklist item requires a real-time search of the Register in order to:

- a) Confirm that an individual was registered
- b) Determine that an individual is currently registered
- c) Confirm that an individual has never been registered (proving the negative)

Search the Registration Database for individuals, filtering by Active status

- Search by Surname, Forenames
- Or by Registration Number
- Or by Email Address
- Or by Business Name / Address

Note: ARB has existing SQL Server SP's which may slightly reduce the effort of building this type 'search' functionality (perhaps no need to 'reinvent the wheel' for this microservice if those existing stored procedures can be used)

When a list of resignation requests/death notifications are presented to a Professional Standards user for approval or refusal (such that the display of 'real-time' Register data is essential)

- Assimilate existing AMS app data and data from Professional Standards' Database and the Registration database, cross-referencing by Registration Number

At regular intervals during the processing of an application

- a) Check that the status of the corresponding registrant remains consistent with the application process (e.g. ensuring that an re-join applicant is Not Registered);
 - b) Check whether an alert should be displayed (e.g. if an applicant to re-join the Register was removed for disciplinary reasons)
- Lookup by Registration Number

Appendix 3

Pre-Application Waivers Microservice (PAWM)

The PAWM microservice is intended to fulfil the following requirements:

- 1) Implement and track the issuance and authorisation (by ARB staff end users) of pre-application Administration Fee Waivers and Penalty Fee Waivers in support of ARB's broader business processes in relation to the submission and processing of applications to join (or re-join) the Register of Architects. The definition of these waivers and how they are intended to operate is described in detail in Appendix 10.
- 2) Where possible and appropriate, enforce business rules that curtail and control these issuances and authorisations
- 3) Enforce the expiry of unclaimed pre-application waivers
- 4) Provide software interfaces for unclaimed pre-application waivers to be reconciled and claimed as part of the functional operations of the legacy Online Applications Portal and the new AMS app
- 5) Integrate with the new RDM microservice for the purpose of retrieving relevant data sets
- 6) Auditing of activities in scope

Note: An end user interface is required to complement this microservice and delivery of that GUI is within the scope of the tender. The microservice and GUI together shall form a complete software solution.

Under the currently-proposed software architecture there are dependencies between the PAWM microservice and the new IAMS; between the PAWM and the new AMS app; between the PAWM and the new AFD microservice; between the PAWM and the new RDM microservice; and between the PAWM and the legacy Online Applications Portal.

The following table serves to iterate (in non-technical terms) the inter-activities between these software components in a little more detail, in order to illustrate the shape and scale of this microservice.

PAWM End User GUI	
To meet all GUI requirements for end users to access pre-application waiver functionality	
End user search for an individual whose name was previously registered and was removed under Section 8.2 within the 11 month period preceding the issue of the waiver (decision to issue a pre-application waiver).	<ul style="list-style-type: none">Integration with RDM microservice
End user search list of references/email addresses for closed ineligible applications (decision to issue a pre-application waiver)	<ul style="list-style-type: none">Integration with AMS app
End user removal of an unauthorised issued pre-application waiver	<ul style="list-style-type: none">Authorisation logic (IAMS)
End user authorisation of an unauthorised Issued pre-application waiver	
End user rejection of an unauthorised issued pre-application waiver	
Enumeration (lists) of pre-application waivers <ul style="list-style-type: none">By time stampsBy statuses (authorisation, claimed et.al.)	
List of Events / Activity Logs (by Date Time)	
Integration with the AMS app	
When an application is created by user in the AMS app and the AFDM has returned a calculation incorporating an unclaimed authorised pre-application waiver	
Notification to PAWM of the claim of an authorised pre-application waiver	
Integration with the Online Application Portal	
When an applicant submits an (online) application	
Notification to PAWM service of a claim of an authorised pre-application waiver	
Integration with the AFDM Microservice	
When the Online Application Portal requests a calculation of the <i>Application Fee Due</i> ; or when a user is creating an application in the AMS app and specifying the <i>Application Fee Due</i>	
Respond to a query from the AFDM to determine whether or not a pre-application waiver is available	

Appendix 4

Application Fee Due Microservice (AFDM)

The AFDM microservice is intended to fulfil the following requirements:

- 1) A software implementation of the business logic that calculates the *Application Fee Due* (and its fee components) for an application to join (or re-join) the Register of Architects. The definition of the *Application Fee Due*, the policy for its calculation, together with explanation of the corresponding Application Types and related supplementary information is in Appendix 10.
- 2) Expose a service for enumeration of the policy-defined options for payment of the Application Fee Due (based on application-specific inputs)
- 3) Expose a service for the calculation of the *Application Fee Due* and its fee components, compliant with policy (based on application-specific inputs)
- 4) Expose a service for the validation of end user inputs against both policy-defined options (#2 above) and policy-driven fee calculations (#3 above)
- 5) Query the new PAWM microservice for any unclaimed authorised pre-application waivers as part of the calculation of the Application Fee Due.
- 6) A software implementation of the Fee Schedule configuration that applies to applications to join (or re-join) the Register of Architects; and operations by authorised End Users for the modification and extension of this Fee Schedule
- 7) Enforce business rules that curtail and control Fee Schedule changes in accordance with policies
- 8) Audit logging of all activities in scope (and audit log review)

An end user interface is required to complement this microservice and delivery of that GUI is within the scope of the tender. The microservice and GUI together shall form a complete software solution.

The following wireframes provide an overview of the key GUI elements:

- “System Administrator – Fee – Fee Pricing”
- “System Administrator – Fee – Fee Dates”
- “System Administrator – Fee – Minimum Processing Amount”

Under the currently-proposed software architecture there are dependencies between the AFDM microservice and the new IAMS; between the AFDM and the new AMS app; between the AFDM and the new PAWM microservice; and between the AFDM and the legacy Online Applications Portal.

The following table serves to iterate (in non-technical terms) the inter-activities between these software components in a little more detail, in order to illustrate the shape and scale of this microservice.

AFDM End User GUI

To meet all GUI requirements:

- System Admin users to manage the Applications Fee Schedule
- Editing of per-Application-Type Fee Amounts, Components and 'Dates from' ("Fee Pricing") and relevant validation rules
- Enumeration (List) of current Fee schedule data ("Fee Pricing")
- Enumeration (List) of historical Fee Schedule data ("Fee Pricing")
- Editing of static fee amounts (e.g. Statutory Annual Retention Fee)
- Enumeration (List) of historical static fee amounts
- Editing of Calendar Triparts ("Fee Dates") and relevant validation rules
- Enumeration (List) of historical Calendar Triparts ("Fee Dates")
- Editing of Minimal Processing Amount and relevant validation rules
- Enumeration (List) of historical Minimal Processing Amount
- Detailed Event/Activity log

Integration with the Online Applications Portal

Calculation of Application Fee Due from Online Portal inputs (as part of an Application user journey) with description of all fee component types and values

Integration with the AMS app

When a user is creating an application in the AMS and is specifying the *Application Fee Due*; validation of *Application Fee Due* inputs against the fee schedule and policy

Maybe: enumeration of fee components/options for presentation by the AMS

Integration with the PAWM microservice

When the Online Portal requests a calculation of the Application Fee Due; or when an AMS app user is creating a new application and is specifying the Application Fee Due - Query the PAWM to determine whether or not a waiver is available.

Appendix 5

Integration of Microservices with Online Application Portal

ARB operates an Online Application Portal (OAP) which is an ASP.NET Forms Web App that provides a publicly-accessible online service for individuals wishing to submit applications either to join the UK Register of Architects for the first time or to re-join having been previously registered.

The OAP is hosted at <https://applicants.arb.org.uk>

1) Search for Previously Registered Individuals

A small but vital feature of the OAP is that users are able to search for individuals whose names have been removed from the Register of Architects. This functionality is a key prerequisite to enabling the creation and submission of applications to re-join the Register.

Currently, this functionality is implemented with a software architecture wherein the OAP app makes calls to an underlying SQL Server database using a standard .NET data provider. This implementation shall be replaced by one that integrates the OAP with the new RDM microservice instead.

2) Pre-Population of Input Fields for Re-Join Applications (OAP Enhancement)

As mentioned above, in the course of the OAP user journey for re-join applications, the relevant individual is identified using Search functionality. If the search is completed successfully, then the application has the relevant ARB Registration Number attached to it.

Once the Registration Number is known, it is possible to leverage this information to auto-populate data fields with data retrieved from the Registration database. In some cases, this data could be stale but in many other cases it won't be, and therefore retrieving it and using it to pre-populate the OAP forms potentially saves the end user time and effort, thus enhancing the user journey and increasing efficiency.

The limiting factor is that only previously-published data could be used in such a manner, due to the risk of improper disclosure of Personal data.

This enhancement shall be implemented with integration between the OAP and the new RDM microservice.

3) Fee Payment Options and Calculation of the Application Fee Due

The OAP contains business logic for:

- The calculation of fees payable upon submission of an application (i.e. the Application Fee Due) and the prerequisite fee schedule
- Determination of the different fee payment options available to end users dependent upon the Application Type and other inputs.

A refined and enhanced set of equivalent business logic will be created and implemented as part of the development of the *Application Fee Due* Microservice (AFDM).

The Online Application Portal shall consume the AFDM business logic, permanently displacing the legacy business logic described above and rendering it otiose.

4) Passlist Portal App API

In the course of the OAP user journey for applications to join the Register on the basis of qualifications obtained from UK schools of architecture, applicants are asked to specify which Courses they have completed, at which Schools and when.

Schools and Courses are presented in drop-down combo boxes, which are populated from a local underlying data source. This needs to be changed, so that the Schools and Courses data is populated by retrieving data from the API linked to the legacy PLP app database – see Objective 8(i).

Appendix 6

Application Management System (AMS app)

Purposes

The fundamental functional purposes of the new AMS app are:

- To provide a case management system for office-based processing of applications to join or re-join the UK Register of Architects
- To provide a case management system for the processing of requests to resign (proactively withdraw) from the UK Register of Architects
- To provide a case management system for the processing of notifications of deaths of registered architects and the consequent removal of their names from the UK Register of Architects

Background

At present:

- A large majority (>90%) of applications to join or re-join the UK Register of Architects are submitted electronically through the Online Application Portal, but a minority of applications continue to be accepted by ARB in hard-copy format
- All applications and related evidence, submitted electronically or not, are processed and assessed by ARB's officers on a hard-copy/paperwork basis. Applications are tracked and monitored using a mixture of off-the-shelf software apps (e.g. Microsoft Excel, Apache OpenOffice)
- Requests to resign from the Register of Architects are received by ARB in various ways (1) through ARB's Registrant Services web site; (2) by email; (3) by hard-copy communication
- All requests to resign are processed and assessed by ARB's officers on a hard-copy/paperwork basis. Applications are tracked and monitored using a mixture of off-the-shelf software apps (e.g. Microsoft Excel, Apache OpenOffice)
- Notifications of deaths are received by ARB in various ways (1) by email; (2) by hard-copy correspondence; by phone et.al.
- All notifications of deaths are processed and assessed by ARB's officers on a hard-copy/paperwork basis. The processing of notifications is tracked and monitored using a mixture of off-the-shelf software apps (e.g. Microsoft Excel, Apache OpenOffice)

AMS Objectives

- Provide a unified, optimal case management app for the procedures mentioned above, including an organised repository for content and related evidence
- Integrate with the legacy Online Applications Portal to render submitted 'accepted' applications directly in to the AMS app
- Integrate with the legacy Registrants' Services web app to render submitted 'resignation requests' directly in to the AMS app
- Integrate directly with the Register Database to execute approved outcomes:
 - Add individuals to the Register upon successful completion of join applications
 - Reinstate individuals to the Register upon successful completion of re-join applications
 - Remove individuals from the Register upon approval of resignations request
 - Remove individuals from the Register upon authorisation of notification of death
- Attain a proportionate reduction in the quantity of work managed on paper. In particular, eliminate the internal production of paper for the business procedures that are in scope
- Accurately track procedural activity
- Accurately audit end user activity
- Export tracking, monitoring and auditing metadata
- Eliminate dependencies upon third-party software apps for tracking and monitoring of all the business procedures that are in scope
- Provide efficient composition and dispatch of email communications to applicants and stakeholders
- Provide automated email notifications for applicants for information on the progression and status of applications
- Provide detailed, interactive, context-sensitive checklists for end users
- Provide end users with the ability to efficiently review, scrutinise and annotate evidential images and documentation
- 'Transparent' authentication for internal (staff) end users (new IAMS)
- Implement appropriate restrictions and controls to constrain activity and/or data access on the basis of user identity and role (new IAMS)
- Provide calculation and verification of fees payable by applicants (in alignment with business policies)
- Provide tracking of fees due and monies received
- Provide calculation of refunds payable by ARB (in alignment with business policies)
- 'Soft integrate' with ARB Accounting Systems (Sage) to facilitate batch processing of refunds
- Render financial reports in sufficient variation to help facilitate end-of-year financial reconciliations and similar reporting requirements
- Provide for the input and aggregation of application-specific Equality and Diversity data
- Provide a low-friction transition for end users between the AMS app Check List and the legacy Passlist Portal app, to enable the efficient verification of the attainment of UK qualifications by applicants to join the Register
- Provide a suite of system-driven rules-based end user Tasks (see Tasks in Appendix 8)
- Provide template-based email notifications linked to end user Tasks
- Provide end users with simple "To Do" list functionality to help them manage their case workloads

Appendix 7

AMS Wireframes

Tenderers may access the AMS app wireframes online in a browser using Visual Spec.

More information about Visual Spec can be found online at this location:

<https://visualspec.co.uk/Home.html>

To access these wireframes please send a request by email to amst@arb.org.uk and you will be provided with a Visual Spec account and login details. Alternatively, to make arrangements for Visual Spec access by telephone, please call ARB on 020 7580 5861 and state that you are calling about the AMS tender.

Appendix 8

AMS Notes

Working Days / WTEM microservice / Working Time

Throughout the proposed AMS app, the amount of time elapsed between key events is measured and reported in Working Days rather than “plain” Calendar Days. This is a fundamental principle that ensures fairness and accuracy in the measuring of performance against service standards.

It is for this reason that Key Performance Indicators (KPIs) and Deadlines are expressed in units of Working Days too. Productivity Reports will conform to this standard.

The Bank Holidays Wireframe (Appendix 7, p.12) shows how Bank Holidays can be recorded in the proposed AMS app. This data is required as a prerequisite to quantifying working time. Although this functionality is depicted in the wireframes as if it were part of the AMS app, these GUI artefacts will in fact form the GUI of the Working Time Elapsed microservice (WTEM). The functionality for quantifying working time elapsed shall reside in the WTEM microservice so that it can be consumed by multiple apps including the AMS app.

Clock (Processing Time Elapsed)

The proposed AMS implements the notion of a clock, which essentially is a per-application mechanism for quantifying the amount of time spent by ARB actively processing the application.

The clock is said to be “Running” or to have “Started” during those periods of time where ARB is actively working on the processing of the application. The clock is said to be “Stopped” during those periods of time where ARB is not actively working on the processing of the application.

The clock may be started and stopped on numerous occasions during the full course of application processing. For example, if ARB determines that additional information is required from an applicant, the clock is stopped as soon as the applicant has been asked for that information; and the clock is started again only once that information has been provided.

A slight degree of complexity arises in that clock-connected events may not always occur in a purely stop-then-start-then-stop order. For example:-

1	Application Created	Clock Starts
2	ARB asks applicant for additional information	Clock Stops
3	ARB asks University for additional information	Clock remains Stopped
4	University supplies requested information	Clock remains Stopped
5	Applicant supplies requested information	Clock Starts

In the above example, the Clock is Stopped at #2 and is Started again at #5, because only with the occurrence of that event has ARB received all the information needed to once again begin actively processing the application.

The aggregation of processing time measured by the Clock is the quantity that is set against KPIs for measuring performance. Accordingly the Clock must quantify time on the same “Working Time”-basis as discussed in the preceding section; and as summarised in the table below.

Is “working” time?	Is ARB actively processing the application?	Clock Status
Yes	Yes	Clock is Running (Processing Time)
	No	Clock is Stopped (Awaiting Time)
No – (e.g. Weekend or Bank Holiday)	N/A	Clock is Stopped (Non-Working Time)

Clock / KPI Granularity

ARB management have indicated that productivity reports, KPI measurements (et.al) ought to be rendered with a 1-day granularity (i.e. no reporting on fractions-of-days.)

However, it will be necessary that the underlying system calculations operate with a finer granularity, because much of the corresponding input data will be of a finer granularity, and too much information loss will otherwise result.

Calculations of a finer granularity (e.g. based on hours rather than days) can be rounded-up or rounded-down for presentation in management reports/data, as deemed appropriate.

KPI Bands and KPI Types

1. Define a **KPI BAND** as a nominal Status linked to either (i) a well-defined inclusive range of integer values, or (ii) a range of integer values starting inclusively at a well-defined value and infinity
2. Define a **KPI TYPE** as (i) a specific set of KPI BANDs having ranges which collectively cover every possible accumulation of units (having a 0 or positive count); and (ii) a literal integer positive non-zero **Deadline** value, such that:
 - (a) there must be at least one Band in the set (ergo at least one Status); and
 - (b) No Band may be in the set such that its range overlaps or touches another Band; and
 - (c) No single integer value (or range of values) may be unaccounted for by the collective ranges;
 - (d) There must be one (and only one) band in the set with a range having no end (an “everything that is equal to or greater than X” range)

3. Example of a valid KPI TYPE definition conformant with the preceding rules:

Status	Range Start	Range End
First	0	50
Second	51	100
Third	101	∞

Deadline: 100

4. Example of an invalid KPI TYPE. This definition does not conform to the preceding rules because the *First* and *Second* ranges touch (at 50)

Status	Range Start	Range End
First	0	50
Second	50	100
Third	101	∞

Deadline: 100

5. Example of an invalid KPI TYPE. This definition does not conform to the preceding rules because the integer values from 41 to 49 inclusive are unaccounted for:

Status	Range Start	Range End
First	0	40
Second	50	100
Third	101	∞

Deadline: 100

6. Example of an invalid KPI TYPE. This definition does not conform to the preceding rules because two ranges overlap (integer values 58-60 inclusive are accounted for twice):

Status	Range Start	Range End
First	0	60
Second	58	100
Third	101	∞

Deadline: 100

7. Define a valid KPI TYPE named **Standard 30 KPI** as:

Status	Range Start	Range End
Early	0	10
OK	11	26
At Risk / At Deadline	27	30
Fail	31	35
Bad Fail	36	50
Epic Fail	51	∞

Deadline: 30

This KPI Type will be used to measure performance (to a half-day granularity) against a **15 Working Days Deadline**.

8. Define a valid KPI Type named **Standard 20 KPI** as:

Status	Range Start	Range End
Early	0	7
OK	8	17
At Risk / At Deadline	18	20
Fail	21	23
Bad Fail	24	33
Epic Fail	34	∞

Deadline: 20

This KPI Type will be used to measure performance (to a half-day granularity) against a **10 Working Days Deadline**

9. Define a valid KPI Type named **Standard 10 KPI** as:

Status	Range Start	Range End
Early	0	3
OK	4	8
At Risk / At Deadline	9	10
Fail	11	14
Epic Fail	15	∞

Deadline: 10

This KPI Type will be used to measure performance (to a half-day granularity) against a **5 Working Days Deadline**

10. Define a valid KPI Type named **Standard 80 KPI** as

Status	Range Start	Range End
Early	0	27
OK	28	69
At Risk / At Deadline	70	80
Fail	81	93
Bad Fail	94	133
Epic Fail	134	∞

Deadline: 80

This KPI Type will be used to measure performance (to a half-day granularity) against a **40 Working Days Deadline**

11. An unlimited number of KPI Types may be created but no KPI Type shall be modified after it has been created. (i.e. a KPI Type is immutable).
12. There shall be a modifiable one-to-one mapping between each fixed Application Type and a valid KPI Type. In the context of this mapping the KPI Type shall be known as the **Application Default KPI**. No Application Type shall ever be absent a counterpart *Application Default KPI*. Multiple *Application Types* may be mapped to the same KPI Type.

13. Initially, the Application Default KPI mapping shall be as follows:

	Application Type	Application Default KPI
1	UK New	Standard 30 KPI
2	UK New Over 2 Years Qualified	Standard 80 KPI
3	EU New	Standard 30 KPI
4	Readmission In Calendar Year Resigned	Standard 10 KPI
5	Readmission Over 2 Years Resigned	Standard 80 KPI
6	Readmission Within 2 Years Resigned	Standard 10 KPI
7	Reinstatement Within 2 Years Removed	Standard 10 KPI
8	Reinstatement Over 2 Years Removed	Standard 80 KPI
9	Section 11 Reinstatement In Calendar Year Removed	Standard 10 KPI
10	Section 11 Reinstatement Over 2 Years Removed	Standard 80 KPI
11	Section 11 Reinstatement Within 2 Years Removed	Standard 10 KPI

14. The Application Default KPI mapping may be changed. A detailed audit trail of all such changes must be maintained and be readily accessible, so that the mappings and KPI details that were applicable on any given date can be easily reviewed.

15. When an Application is created it shall be assigned a KPI Type, in this context known as the **Application KPI**. No Application shall ever be absent an Application KPI. The Application KPI that is initially assigned to an Application upon its creation shall be determined by cross-referencing the Application Type with the Application Default KPI Mapping that is current at the time the Application is created.

16. The *Application KPI* of an Application may be changed. A detailed audit trail of all such changes must be maintained and be readily accessible, so that the Application KPI and KPI details that were applicable to the Application on any given date can be easily reviewed.

17. For clarity: changes made to the *Application Default KPI Mapping* do not propagate to pre-existing Applications and, in particular, do not cause any changes to existing *Application KPIs*.

KPI Adjustment Per-Application

Wireframes “Application Key Performance Indicators View” (Appendix 7, p.17) and “KPI Adjustment” (p.18) illustrate that on a per-application basis, a manual static adjustment may be applied (in the form of a scalar quantity of whole working days) to the aggregate quantity of elapsed time measured by the Clock.

The purpose of this Adjustment feature is to ensure that in exceptional circumstances staff can properly modify the Clock-calculated figure (and thereby correct any ‘erroneous’ rendering of the corresponding KPI metrics).

Tasks

The following table contains a list of system-driven tasks that will likely be in scope.

User / Role	Task	Description	Trigger type	Trigger	Additional comments
Registration Administrator	Checklist items are still outstanding and there been no contact with the applicant or school	This task will be for any areas where a checklist has reviewed and there are areas that are unchecked.	Time driven	If after 1/2 a working day the user has clicked 'check' and there is outstanding items and there has been no email generated to either the school or applicant	
Registration Administrator	Application has been in awaiting for 7+ working days send chase email	This will be if there has been no update to an application where the clock has stopped	Time driven	The trigger will be based on the date that the contact with the school/ applicant was sent. After 7 working days this task will be generated.	This task will continue to be generated up until the 3 month mark.
Registration Administrator	Send chase email to [#Panel Member#]	This will be if there has been no decision added to the CSG tab for this panel member	Time driven	If after 14 days after the Panel member has been assigned and no decision has been added.	
Registration Administrator	Send an email to an applicant that they will be removed off of the register on [#date#]	This will be to contact a resignation applicant to remind them that they are going to be removed from the register	Time driven	2 days before the resignation is due to be enforced	
Registration Administrator	Reminder - Awaiting death confirmation	This will be an application to the Registration Administrators to	Time driven	1 week after a death application has been created by the user and no updates to the application has been made	
Approver	Application ready for review	Once the application is ready for the approver to review they will be sent a task	Based on Application type	On clicking send to approver the task is generated - if there is a FAO Approver note added the task will include a mention there is an FAO	

Limitations

ARB recognises that it will be necessary to work with the successful tenderer to establish a precise scope of works and to agree the magnitude of effort needed to deliver a minimum viable product.

For information, ARB has pre-determined that the following will be out-of-scope:

- Modification of Application Types by end users
- Modification of Application Workflow structures by end users
- Modification of Application Check List Content by end users

(ARB anticipates that such modifications will necessitate software maintenance effort.)

Registrants' Services Web App (RSWA) integration with AMS app

ARB operates a Registrants' Services Web App (RSWA) which is an ASP.NET Web App that provides an online service for registered architects wherein they can submit to ARB changes of their personal details (e.g. changes of address) and Equality and Diversity data.

The RSWA also provides an online service for registered architects to submit a request to ARB to resign from the Register (i.e. a request to have their name removed from the Register of Architects).

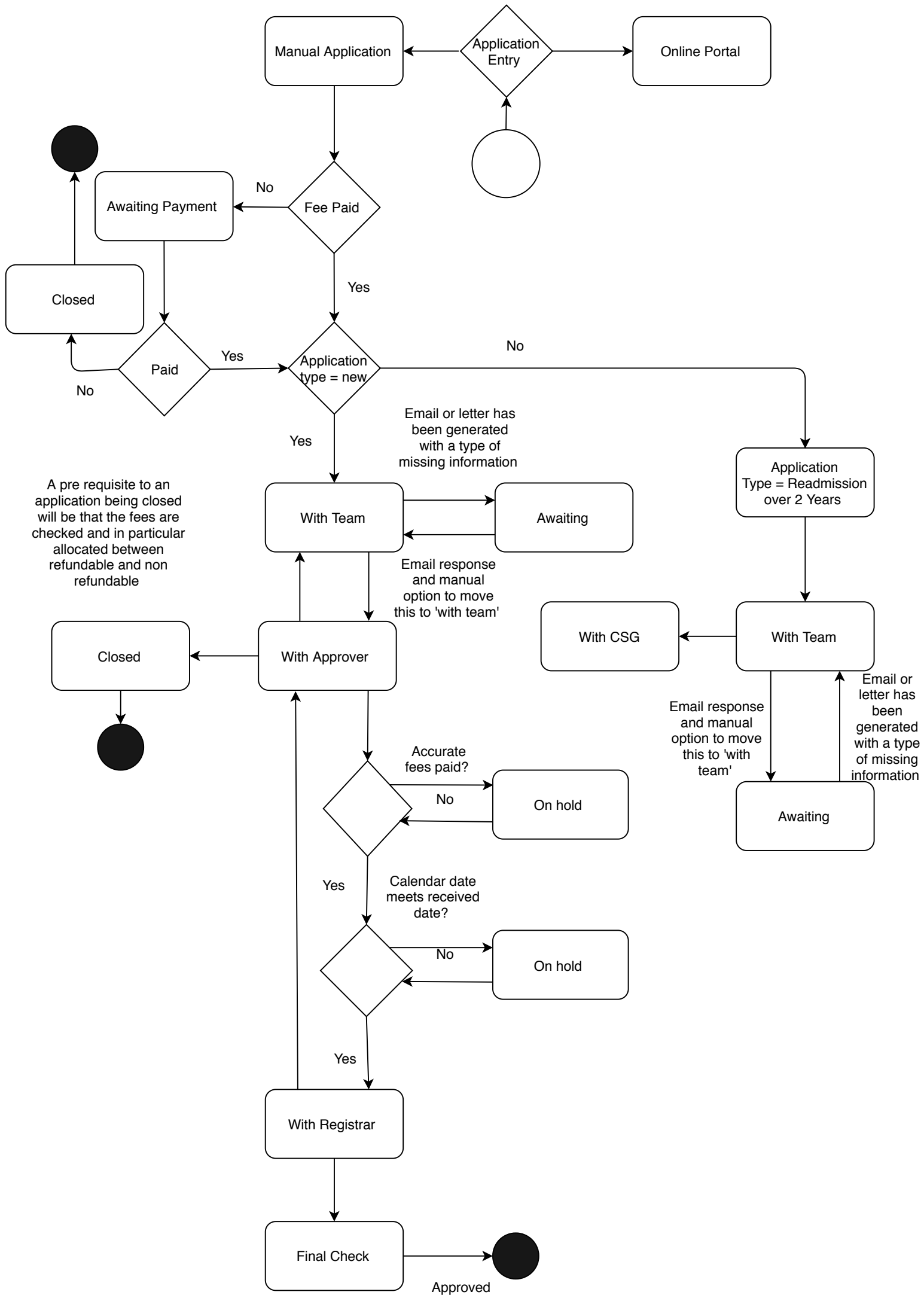
The new AMS app must include an API that allows the Registrant Services Web App to feed Resignation Requests directly in to the AMS app.

ARB's Registrants' Services web app is hosted at <https://registrants.arb.org.uk>

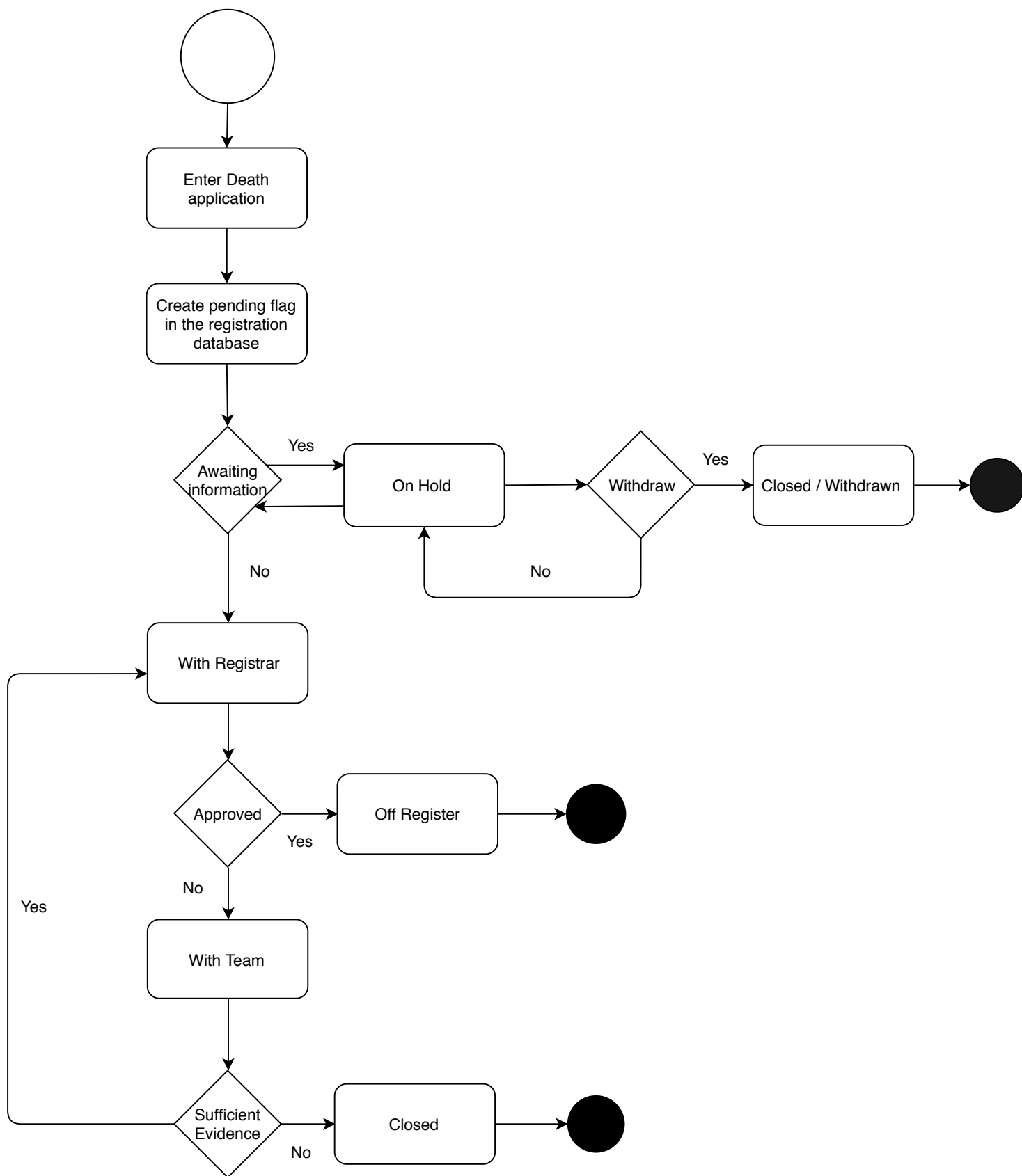
Applications Workflow Diagram

Note: The following pair of diagrams is intended to help visualise the procedural workflow for applications. The proposed AMS app is primarily a case-management app and not a workflow app. There is no intention of embedding the illustrated workflow in to the AMS app in the convention of a traditional workflow app. Rather, the proposed AMS app is intended, in the manner of a typical case-management app, to help organise work effectively conducive to supporting the business procedures visualised in these diagrams.

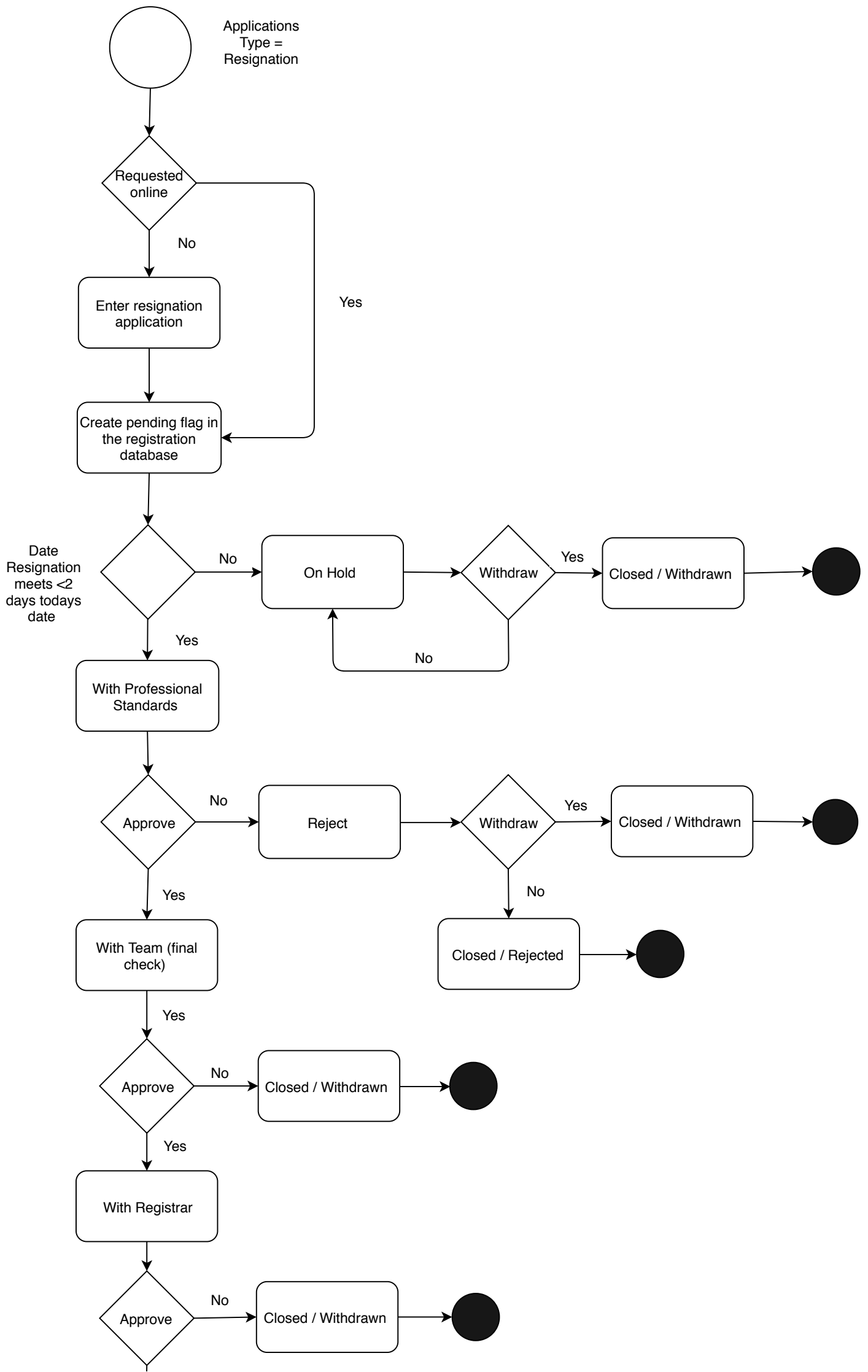
It is intended that the AMS app enforce some elements of policy that are tightly-bound to the relevant business procedures (for example, by ensuring that all prerequisites are met before an application proceeds to the Registrar for approval).



Death Notifications Workflow Diagram



Resignation Requests Workflow Diagram

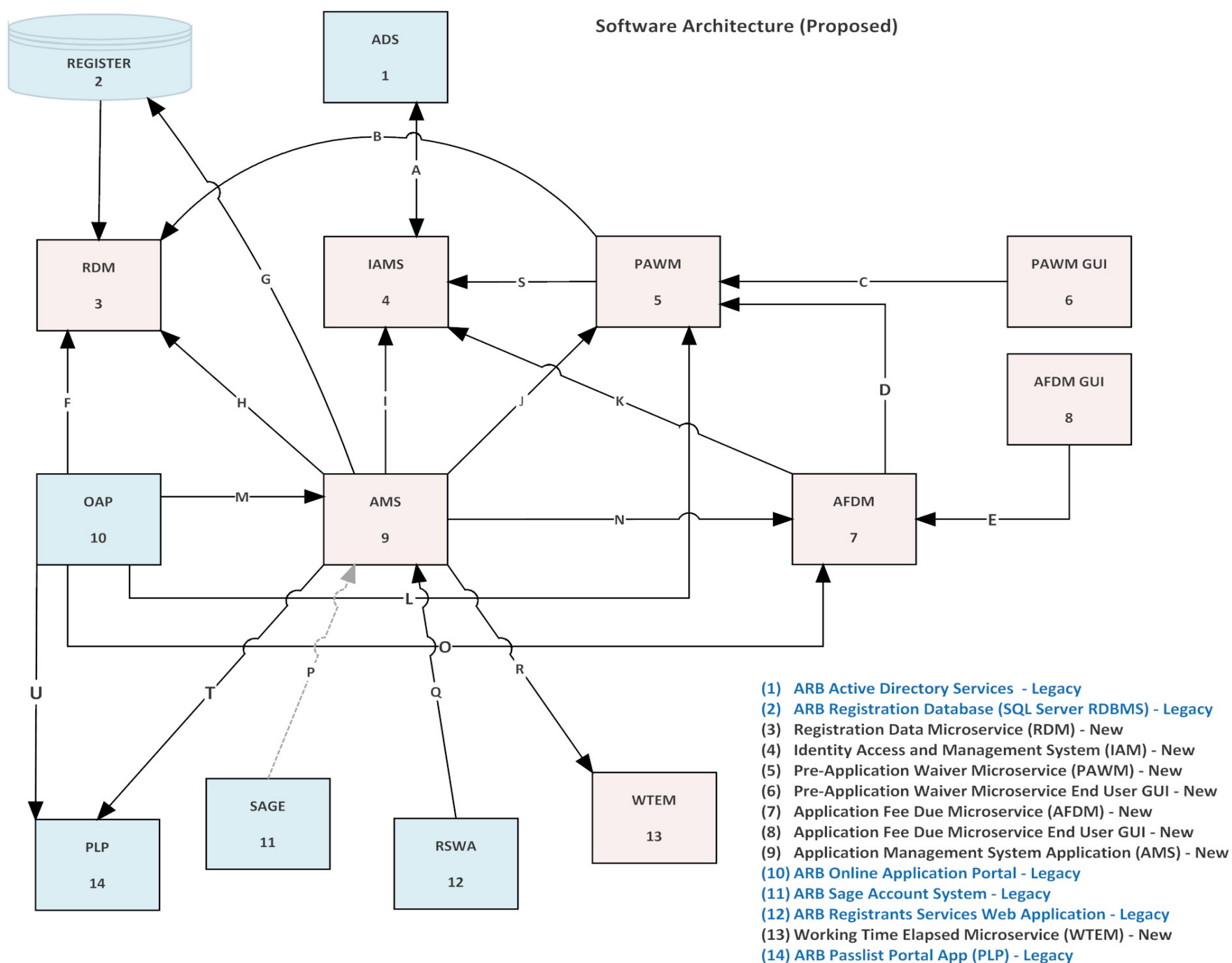


Appendix 9

Proposed Software Architecture Diagram

The following diagram is intended to illustrate proposed but preliminary software solution architecture.

The final software architecture will be negotiated and agreed at the implementation stage.



- (A) The new Identity and Access Management System (IAMS) integrates with ARB's Active Directory Services (ADS) to provide SSO to Internal/Extranet users
- (B) The new Pre-Application Waivers microservice (PAWM) is a client of the new Registration Data microservice (RDM)
- (C) The new PAWM microservice will be complemented by an end user GUI
- (D) The new Application Fee Due microservice (AFDM) is a client of the new PAWM microservice
- (E) The new AFDM microservice will be complemented by an end user GUI
- (F) The legacy Online Applications Portal (OAP) is a client of the new RDM microservice
 See Appendix 5 - Integration of Microservices with Online Application Portal
- (G) The new Application Management System (AMS) app is a client of the legacy Register database (MSSQL RDBMS)
- (H) The new AMS app is a client of the new RDM microservice
- (I) The new AMS app integrates with the new IAMS for Identity, Access, Authorisation, Authentication, Role and User Group services
- (J) The new AMS app is a client of the new PAWM microservice
- (K) The new AFDM microservice integrates with the new IAMS for Identity, Access, Authorisation, Authentication, Role and User Group services
- (L) The legacy OAP is a client of the new PAWM microservice
- (M) The legacy OAP feeds submitted applications directly in to the new AMS app
- (N) The new AMS app is a client of the new AFDM microservice
- (O) The legacy OAP is a client of the new AFDM microservice
- (P) A 'soft integration' between ARB's Sage Accounts apps and the new AMS app (to efficiently process AMS-output payments)
- (Q) The legacy Registrants Services Web App (RSWA) feeds architects' resignation requests directly in to the new AMS app
- (R) The new AMS app is a client of the new Working Time Elapsed Microservice (WTEM)
- (S) The new PAWM microservice integrates with the new IAMS for Identity, Access, Authorisation, Authentication, Role and User Group services
- (T) The new AMS app leverages a GUI-centric search API implemented by the legacy Passlist Portal app (PLP)
- (U) The legacy OAP is a client of the legacy PLP app

Appendix 10

Application Types and Application Fees

1. All fees are Pound Sterling. Value Added Tax does not apply.

Application Types

2. There are 11 distinct Application types and any Application shall be of one and only one type:

Type ID	Abbrev.	Type	CSG?
1	UK NEW ≤2	UK New Within 2 Years Qualified	No
2	UK NEW >2	UK New Over 2 Years Qualified	Yes
3	EU NEW	EU New	No
4	REA CAL	Readmission In Calendar Year Resigned	No
5	REA >2	Readmission Over 2 Years Resigned	Yes
6	REA ≤2	Readmission Within 2 Years Resigned	No
7	REI ≤2	Reinstatement Within 2 Years Removed	No
8	REI >2	Reinstatement Over 2 Years Removed	Yes
9	S11 CAL	Section 11 Reinstatement In Calendar Year Removed	No
10	S11>2	Section 11 Reinstatement Over 2 Years Removed	Yes
11	S11≤2	Section 11 Reinstatement Within 2 Years Removed	No

3. Application Types 2, 5, 8 and 10 are classed CSG application types (*Competency Standards Group*)

Calendar Triparts

4. The calendar year is divided into Calendar Triparts. The collective definition of the Calendar Triparts presented in the table below may be adjusted from time to time provided that there are three touching non-overlapping sections collectively covering any full calendar year, such that any given point in time belongs to one and only one tripart. This includes the possibility of future scheduled revisions. The current definition is:

Tripart 1	1 January – 31 September inclusive	
Tripart 2	1 October – 18 December inclusive	The period during which the intention is to give applicants the option to pay for registration through to the end of the following calendar year
Tripart 3	19 December – 31 December inclusive	The period during which the intention is to accept applications only on the understanding that processing will not begin until the start of the following calendar year.

5. a) For both Online applications and Offline applications, the Calendar Tripart that an Application falls into can be determined by calculating its Anticipated *Submission DateTime* and then mapping that value to the collective definition of Calendar Triparts (4).
- (b) For Online applications, the *Anticipated Submission DateTime* is calculated by adding 20 minutes to the current local British DateTime when the payment is requested as part of the online application process.
- (c) For Offline applications, the *Anticipated Submission DateTime* is calculated by a reasonable determination by ARB of the earliest date and time when all of the following criteria were readily and verifiably true:
- The application was received by ARB, completed to the minimal extent necessary for ARB's acceptance for further processing
 - In connection with the application, a monetary amount was received by ARB of at least £35.00. (This minimum monetary amount may be adjusted from time to time.)

The Application Fee Due and its components

1. The composite total fee amount determined by policy for a single application is the **Application Fee Due**. It principally comprises one or more of the following fee components:

- i. **(Standard) Administration fee** – this is a non-refundable fee component operated on a *cost recovery* principle and conceptually it covers the cost of processing the application. The Administration fee chargeable value is set at one value for a CSG Application type and another value for any other Application type. The chargeable value may be adjusted by ARB from time to time; this includes the possibility of future scheduled adjustments. The current values are:

CSG Application	Any other Application
£110.00	£35.00

For Applications falling into Calendar Triparts 1 or 2, the amount due is that which applies at the *Anticipated Submission DateTime*. For Applications falling into Calendar Tripart 3, the amount due is that which applies at 2nd January of the next calendar year¹.

- ii. **Penalty fee** – this is a non-refundable fee component operated on a *cost recovery* principle and conceptually it covers the operational costs arising directly from the administration of Section 8.2 (Removals for non-payment of the annual retention fee). The chargeable value may be adjusted by ARB from time to time; this includes the possibility of future scheduled adjustments. The current chargeable value is £10.00.

For Applications falling into Calendar Triparts 1 or 2, the amount due is that which applies at the *Anticipated Submission DateTime*. For Applications falling into Calendar Tripart 3, the amount due is that which applies at 2 January of the next calendar year.

¹ From the applicants' perspective, application processing will not begin until 2 January. The effect in Calendar Tripart 3 is that the application shall be accepted now but shall be treated no differently than an application received 2 January, which extends to the determination of the applicable fees.

- iii. **Annual retention fee** – this is the fee component for the retention of a name in the Register in any calendar year after the calendar year of entry (Section 8.1 of the Architects Act). The annual retention fee may be adjusted by ARB from time to time; this includes the possibility of future scheduled adjustments. The current value is £111.00.

For Applications falling into Calendar Tripart 2, payment of the annual retention fee is optional. If the option is taken to pay, then the amount due is that set by ARB for retention of the applicant's name on the Register in the *next* calendar year. For example, an applicant whose 2018 application falls into Calendar Tripart 2 will have the option to pay the annual retention fee set by ARB for retaining their name in the Register for the calendar year 2019.

For applications falling into Calendar Triparts 1 or 3, the annual retention fee is not payable.

- iv. **Pro-rata registration fee** – this is the fee component operating on a *benefit of registration* principle. Its purpose is to cover the period of registration that the annual retention fee cannot cover, i.e. the period of registration that falls within the same calendar year as entry to the Register. As such, this fee complements the annual retention fee component (iii) and its chargeable value is calculated as a percentage of that:

Pro-rata registration fee period	Pro-rata registration fee value
Quarter 1 to Quarter 4 (January – December)	100% of the annual retention fee for the corresponding calendar year
Quarter 2 to Quarter 4 (April – December)	75% of the annual retention fee for the corresponding calendar year
Quarter 3 to Quarter 4 (July – December)	50% of the annual retention fee for the corresponding calendar year
Quarter 4 (October – December)	25% of the annual retention fee for the corresponding calendar year

The amount due is calculated by reference to the annual retention fee chargeable value that would have (were it hypothetically functional under the Act) aligned to the period of registration in question. For example, if the relevant period of registration is July 2018 to December 2018, then the applicable chargeable value is 50% of the annual retention fee set by ARB for retention of a name in the Register for the calendar year 2018.

Accordingly, for Applications falling into Calendar Tripart 3 calculation of the amount due is by reference to the annual retention fee for the *next* calendar year, whereas for Applications falling into Calendar Triparts 1 or 2 calculation of the amount due is by reference to the annual retention fee for the *current* calendar year.

In documentation and systems for public consumption, this fee component is referred to as the *Pro-rata retention fee*.

7. Where applications are withdrawn or unsuccessful, the Annual retention fee component (6(iii)) and the Pro-rata registration fee component shall be refunded to the payer (see ***Refunds for Unsuccessful Applications*** below)

8. Whether or not certain of the fee components are payable is determined as detailed by the following table. In this table, *Waiver* indicates that the fee component is payable but may be waived at the discretion of staff in specific circumstances (see *Administration and Penalty Fee Waivers*, below)

	(1) UK New ≤2	(2) UK New >2	(3) EU New	(4) REA CAL	(5) REA >2	(6) REA ≤2
Standard Administration Fee	Payable	Payable	Payable	Payable	Payable	Payable
Penalty Fee	No	No	No	No	No	No
Pro-rata Registration Fee	Payable	Payable	Payable	Payable in Calendar Tripart 3, Otherwise No ²	Payable	Payable
Annual Retention Fee	Optional in Calendar Tripart 2; otherwise No					
	(7) REI ≤2	(8) REI >2	(9) S11 CAL	(10) S11 >2	(11) S11 ≤2	
Standard Administration Fee	Waiver (9(i))	Payable	Payable	Payable	Payable	
Penalty Fee	Waiver (9(ii))	Payable	Payable	Payable	Payable	
Pro-rata Registration Fee	Payable	Payable	Payable in Calendar Tripart 3, Otherwise No ³	Payable	Payable	
Annual Retention Fee	Optional in Calendar Tripart 2; otherwise No					

² The registration fee is not payable in Calendar Tripart 1 or 2 because a fee for the benefit of registration must have previously been paid that covers the same period. In Calendar Tripart 3, the registration fee charged covers registration for the subsequent calendar year, which will not have been previously paid.

³ See preceding footnote

Pre-Application Administration and Penalty Fee Waivers

9. For potential Applications of Type 7 only, ARB Staff may issue to an Applicant either one or both of:
 - i. An **Administration Fee Waiver** which shall decrease the Administration fee component (6(i)) to zero (£0.00)
 - ii. A **Penalty Fee Waiver** which shall decrease the Penalty fee component (6(ii)) to zero (£0.00).
10. A decision to issue either waiver or both waivers (9) and the reasoning for that decision shall be formally recorded. A decision to issue may only be taken where:
 - i. The applicant's name was previously registered and was removed under Section 8.2 within the 9 month period preceding the issue of the waiver; and the applicant has yet to apply for reinstatement; - in which case either waiver or both waivers may be issued;
 - OR
 - ii. (a) The applicant had submitted an application within the preceding 3 month period; and (b) that last application was unsuccessful on grounds of ineligibility; and (c) the Standard Administration Fee for that last application was received by ARB (or had been waived by ARB); and (d) the Standard Administration Fee for that last application was not refunded by ARB; – in which case only an Administration Fee Waiver may be issued.
11. A decision to issue must be authorised before any issued waiver (9) may be claimed. The authoriser must be a member of the Application Approvers group. The authoriser must be neither the issuer nor the Head of Finance. (For clarity: where the issuer is a member of the Application Approvers group, a different member of the same group can authorise).
12. Any waiver (9) not authorised within 21 days of issue shall be nullified.
13. A waiver (9) is valid for 6 months from its authorisation or until it has been claimed by the applicant to whom it was issued, whichever comes first.
14. A waiver (9) is non-transferable, non-exchangeable and may only be claimed once. The claim of the waiver must be made against the Applicant's first application pursuant to the issue of the waiver.
15. No waiver (9) may be partially issued; and no waiver may be issued in part value.
16. As the effect of the waivers (9) is to zero fee components that are constituent parts of the *Application Fee Due*, the decision to issue them must (and does) decrease the *Application Fee Due* accordingly when the waiver is claimed.

17. The formal calculation of the *Application Fee Due* may therefore be expressed as follows (with each inapplicable component carrying a zero value):

(6(i))		Administration fee	(i) Non-Refundable Due
(6(ii))	+	Penalty fee	
(9(i))	-	Administration fee waiver	
(9(ii))	-	Penalty fee waiver	
(6(iii))	+	Annual retention fee	(ii) Refundable Due
(6(iv))	+	Pro-rata registration fee	
	=	Application Fee Due	

18. (i) As the Annual retention fee (6(iii)) and the Pro-rata registration fee (6(iv)) always carry a chargeable value greater than zero ($>£0.00$), any valid calculation of the *Application Fee Due* (regardless of any waivers) will be greater than zero ($> £0.00$)
(ii) The Non-Refundable Due (17(i)) will be at least zero ($\geq £0.00$)
(iii) The Refundable Due (17(ii)) will be greater than zero ($>£0.00$)
19. For online applications, the *Application Fee Due* is the amount that shall be charged when payment is collected as part of the online submission process.
20. (i) Subject only to the exception (ii) below, the calculation of *the Application Fee Due* is closed (fixed) when an Application is accepted by ARB for processing. Thereafter, any necessary fee changes shall be carried forward by way of the *Application Fee Agreed* (see below).
(ii) The *Application Fee Due* is re-calculated for an accepted Application that is being processed if it is determined that either its Type or its Anticipated Submission DateTime (or both) must be revised. In such a case, the *Application Fee Due* is re-calculated (based on the new Type) and closed and the process of fee reconciliation begins again.

Application Fee Agreed

21. The *Application Fee Agreed* is the amount that ARB has agreed to accept from an Applicant for both the processing of an Application and the attached initial period of registration that will follow if the Application is successful.
22. The *Application Fee Agreed* consists of two components:
- Non-Refundable Agreed** is the amount that ARB intends to retain regardless of the outcome of the Application (and notionally comprises those fee components that operate on a cost-recovery basis)
 - Refundable Agreed** is the amount that ARB will keep only if the Application is successful (and notionally comprises those fee components charged for the benefit of registration)

23. The *Application Fee Agreed* is initially determined when the Application is accepted by ARB for processing and its initial component values are transposed from the constituent fees of the *Application Fee Due*, as shown by this table:

Application Fee Due			Application Fee Agreed	
	Administration fee (6(i))	Non-Refundable Due (17(i))	→	Non-Refundable Agreed (22(i))
+	Penalty fee (6(ii))			
-	Administration fee waiver (9(i))			
-	Penalty fee waiver (9(ii))			
+	Annual retention fee (6(iii))	Refundable Due (17(ii))	→	Refundable Agreed (22(ii))
+	Pro-rata registration fee (6(iv))			

24. In the processing of an Application, the *Application Fee Agreed* may be varied from its initial value by applying to it one or more Adjustments of those types defined at Appendix 3.
25. Adjustments (24) may only be applied subject to the constraints and rules defined by Appendix 3.
26. Any one Adjustment (24) always changes the *Application Fee Agreed* value indirectly by operating directly on one (but never both) of its component values (22(i), 22(ii)).
27. A decision to apply an Adjustment (24) must be authorised and the Adjustment is non-operable until it is authorised. The authoriser must be a member of the Application Approvers group. The authoriser must be neither the decision-maker nor the Head of Finance. (For clarity: where the decision-maker is a member of the Application Approvers group, a different member of the same group can authorise).
28. Any authoriser of an unauthorised Adjustment (24) may either authorise it (in which it becomes permanently operable) or refuse it (in which case it becomes permanently inoperable).
29. Any unauthorised Adjustment (24) may be cancelled or amended by the decision-maker who created it, and no authorisation is required to do so.
30. For clarity: no authorised Adjustment (24) may be cancelled, removed, modified or rendered inoperable. Where authorised Adjustments are operable against the *Application Fee Agreed*, the only way to further modify the *Application Fee Agreed* value is to create and authorise new Adjustments.

Settlement of the Application Fee Agreed

31. An Application may not proceed to the Registrar for approval until the *Application Fee Agreed* has been settled. The *Application Fee Agreed* is settled once ARB has received an amount of money that is at least equal to the *Application Fee Agreed*.
32. For the purpose of determining whether or not the *Application Fee Agreed* has been settled, uncleared (i.e. pending receipt) funds issued by cheque to be drawn against UK Bank Accounts are counted by ARB as money received. (In other words, the operating presumption is that any funds presented in this manner will clear successfully).

Application Outcomes

33. An Application is deemed Successful if it has been decided by the Registrar that on the basis of the Application the applicant shall have their name entered or re-entered on to the Register of Architects.
34. An Application is deemed Unsuccessful if it has been determined by ARB that processing shall be discontinued and the definition of Success (33) is not met when that determination is made.

Refunds for Unsuccessful Applications

35. The principle that applies to Unsuccessful Applications (34) is that money received by ARB that is allocated either to the non-refundable Administration fee (6(i)) or to the non-refundable Penalty fee (6(ii)) shall be retained by ARB; and that all other monies received by ARB shall be promptly refunded to whoever paid them.
36. For Unsuccessful Applications, the amount to be refunded is calculated against the Non-Refundable Agreed component (22(i)) of the *Application Fee Agreed* as shown by the following table:

	Total Monies Received by ARB
-	Non-Refundable Agreed (22(i))
→	If (<£0.00) Then £0.00
=	Refund Amount

37. The presumption that cheques will clear (32) must not be relied upon when calculating Refund Amounts.

Refunds for Successful Applications

38. The principle that applies to Successful Applications (33) is that money received by ARB that is allocated to any of the applicable fee components (6(i)-(iv)) shall be retained by ARB; and that all other monies received by ARB shall be promptly refunded to whoever paid them.
39. For Successful Applications, the amount to be refunded is calculated against the *Application Fee Agreed* as shown by the following table:

	Total Monies Received by ARB	
-	Non-Refundable Agreed (22(i))	Application Fee Agreed
-	Refundable Agreed (22(ii))	
→	If (<£0.00) Then £0.00	
=	Refund Amount	

Appendix 10.1 - Determining the Type of an Application

1. *Determining if an non-submitted Application for Readmission is of Type 4, 5 or 6*
 - a. Calculate the *Anticipated Submission Year* by extracting the Calendar Year component from *Anticipated Submission DateTime*
 - b. Calculate the *Resignation Year* by extracting the Calendar Year component from the *Resignation Action Date*
 - c. If *Anticipated Submission Year* \leq *Resignation Year* then the Type is 4 - Readmission In Calendar Year Resigned
 - d. (Otherwise) Calculate the *Two Years Resigned Date* by adding two calendar years to the *Resignation Action Date*. This calculation shall be executed in such a manner that it produces reliably intuitive results from a layman's perspective. Example:

Resignation Action Date	Two Years Resigned Date
September 15, 2016	September 15, 2018
February 29, 2016	March 1, 2018

- e. Calculate the *Anticipated Submission Date* by stripping the time element from *Anticipated Submission DateTime* (without rounding the date element)
 - f. If *Anticipated Submission Date* $>$ *Two Years Resigned Date* then the Type is 5 - Readmission Over 2 Years Resigned
 - g. (Otherwise) the Type is 6 – Readmission Within 2 Years Resigned
2. *Determining if an non-submitted Application for Reinstatement is of Type 7 or 8*
 - a. Calculate the *Two Years Removed Date* by adding two calendar years to the '*Struck Off*' *Action Date*. This calculation shall be executed in such a manner that it produces reliably intuitive results from a layman's perspective. Example:

Struck Off Action Date	Two Years Removed Date
September 15, 2016	September 15, 2018
February 29, 2016	March 1, 2018

- b. Calculate the *Anticipated Submission Date* by stripping the time element from *Anticipated Submission DateTime* (without rounding the date element)
 - c. If *Anticipated Submission Date* $>$ *Two Years Removed Date* then the Type is 8 - Reinstatement Over 2 Years Removed
 - d. (Otherwise) the Type is 7 – Reinstatement Within 2 Years Removed

3. *Determining if an non-submitted Application for Section 11 Reinstatement is of Type 9, 10 or 11*
- Calculate the *Anticipated Submission Year* by extracting the Calendar Year component from *Anticipated Submission DateTime*;
 - Calculate the *Removal Year* by extracting the Calendar Year component from the *Removal Action Date*
 - If *Anticipated Submission Year* \leq *Removal Year* then the Type is 9- Section 11 Reinstatement In Calendar Year Removed
 - (Otherwise) Calculate the *Two Years Removed Date* by adding two calendar years to the *Removal Action Date*. This calculation shall be executed in such a manner that it produces reliably intuitive results from a layman's perspective. Example:

Removal Action Date	Two Years Removed Date
September 15, 2016	September 15, 2018
February 29, 2016	March 1, 2018

- Calculate the *Anticipated Submission Date* by stripping the time element from *Anticipated Submission DateTime* (without rounding the date element)
- If *Anticipated Submission Date* $>$ *Two Years Removed Date* then the Type is 10 - Section 11 Reinstatement Over 2 Years Removed
- (Otherwise) the Type is 11 – Section 11 Reinstatement Within 2 Years Removed

Appendix 10.2 - Application Payment Options by Application Type and Calendar Tripart

Group 1

For Application Types:-

(1) UK New ≤ 2

(2) UK New > 2

(3) EU New

(5) REA > 2

(6) REA ≤ 2

Calendar Tripart 1 YYYY	Calendar Tripart 2 YYYY	Calendar Tripart 3 YYYY
<p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a pro-rata retention fee of £[xx.yy] (Month YYYY – Month YYYY)</p> <p>The application fee will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYYY] annual retention fee.</p>	<p>You may choose to either:</p> <p>(a) Pay for registration through to the end of next year - £[xx.yy]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a pro-rata retention fee of £[xx.yy] (Month YYYY – Month YYYY) And the [NYYYY] annual retention fee of £[xx.yy].</p> <p>The application fee will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYYY+1] annual retention fee.</p> <p>Or:</p> <p>(b) Pay for registration through to the end of this year only - £[xx.yy]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a pro-rata retention fee of £[xx.yy] (Month YYYY – Month YYYY)</p> <p>The application fee will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYYY] annual retention fee.</p>	<p>Please note that the processing of your application will not begin before 2 January [NYYYY]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a pro-rata retention fee for [NYYYY] of £[xx.yy] (Month NYYYY – Month NYYYY)</p> <p>The application fee will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYYY+1] annual retention fee.</p>
	Default to option (a)	

YYYY] = the current calendar year

[NYYYY] = the next calendar year

[NYYYY+1] = the calendar year after next

Group 2

For Application Types:-

(4) REA CAL

Calendar Tripart 1 YYYY	Calendar Tripart 2 YYYY	Calendar Tripart 3 YYYY
<p>Your payment consists of an application fee of £[xx.yy], which will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYY] annual retention fee.</p>	<p>You may choose to either:</p> <p>(a) Pay for registration through to the end of next year - £[xx.yy]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And the [NYYY] annual retention fee of £[xx.yy].</p> <p>The application fee will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYY+1] annual retention fee.</p> <p>Or:</p> <p>(b) Pay only the application fee - £[xx.yy]</p> <p>The application fee will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYY] annual retention fee.</p>	<p>Please note that the processing of your application will not begin before 2 January [NYYY]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a pro-rata retention fee for [NYYY] of £[xx.yy] (Month NYYY – Month NYYY)</p> <p>The application fee will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYY+1] annual retention fee.</p>
	Default to option (a)	

[YYYY] = the current calendar year

[NYYY] = the next calendar year

[NYYY+1] = the calendar year after next

Group 3

For Application Types:-

(7) REI ≤2

Calendar Tripart 1 YYYY	Calendar Tripart 2 YYYY	Calendar Tripart 3 YYYY
<p>Your payment consists of:</p> <p>An application fee of £[xx.yy] £0.00 Waived by <i>[Issuing Staff Member]</i> And a penalty fee of £[xx.yy] £0.00 Waived by <i>[Issuing Staff Member]</i> And a pro-rata retention fee of £[xx.yy] (Month YYYY – Month YYYY)</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYYY] annual retention fee.</p>	<p>You may choose to either:</p> <p>(a) Pay for registration through to the end of next year - £[xx.yy]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] £0.00 Waived by <i>[Issuing Staff Member]</i> And a penalty fee of £[xx.yy] £0.00 Waived by <i>[Issuing Staff Member]</i> And a pro-rata retention fee of £[xx.yy] (Month YYYY – Month YYYY) And the [NYYYY] annual retention fee of £[xx.yy].</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYYY+1] annual retention fee.</p> <p>Or:</p> <p>(b) Pay for registration through to the end of this year only - £[xx.yy]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] £0.00 Waived by <i>[Issuing Staff Member]</i> And a penalty fee of £[xx.yy] £0.00 Waived by <i>[Issuing Staff Member]</i> And a pro-rata retention fee of £[xx.yy] (Month YYYY – Month YYYY)</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYYY] annual retention fee.</p>	<p>Please note that the processing of your application will not begin before 2 January [NYYYY]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] £0.00 Waived by <i>[Issuing Staff Member]</i> And a penalty fee of £[xx.yy] £0.00 Waived by <i>[Issuing Staff Member]</i> And a pro-rata retention fee for [NYYYY] of £[xx.yy] (January NYYYY – December NYYYY)</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYYY+1] annual retention fee.</p>
	Default to option (a)	

[YYYY] = the current calendar year
[NYYYY] = the next calendar year
[NYYYY+1] = the calendar year after next

Group 4

For Application Types:-

(8) REI >2

(10) S11 >2

(11) S11 ≤2

Calendar Tripart 1 YYYY	Calendar Tripart 2 YYYY	Calendar Tripart 3 YYYY
<p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a penalty fee of £[xx.yy] And a pro-rata retention fee of £[xx.yy] (Month YYYY – Month YYYY)</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYYY] annual retention fee.</p>	<p>You may choose to either:</p> <p>(a) Pay for registration through to the end of next year - £[xx.yy]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a penalty fee of £[xx.yy] And a pro-rata retention fee of £[xx.yy] (Month YYYY – Month YYYY) And the [NYYYY] annual retention fee of £[xx.yy].</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYYY+1] annual retention fee.</p> <p>Or:</p> <p>(b) Pay for registration through to the end of this year only - £[xx.yy]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a penalty fee of £[xx.yy] And a pro-rata retention fee of £[xx.yy] (Month YYYY – Month YYYY)</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYYY] annual retention fee.</p>	<p>Please note that the processing of your application will not begin before 2 January [NYYYY]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a penalty fee of £[xx.yy] And a pro-rata retention fee for [NYYYY] of £[xx.yy] (January NYYYY – December NYYYY)</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYYY+1] annual retention fee.</p>
	Default to option (a)	

[YYYY] = the current calendar year
[NYYYY] = the next calendar year
[NYYYY+1] = the calendar year after next

Group 5

For Application Types:-

(9) S11 CAL

Calendar Tripart 1 YYYY	Calendar Tripart 2 YYYY	Calendar Tripart 3 YYYY
<p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a penalty fee of £[xx.yy]</p> <p>Neither of these fees will be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYY] annual retention fee.</p>	<p>You may choose to either:</p> <p>(a) Pay for registration through to the end of next year - £[xx.yy]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a penalty fee of £[xx.yy] And the [NYYY] annual retention fee of £[xx.yy].</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYY+1] annual retention fee.</p> <p>Or:</p> <p>(b) Pay for registration through to the end of this year only - £[xx.yy]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a penalty fee of £[xx.yy]</p> <p>Neither of these fees will be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [YYYY]. We will write to you before then to arrange for payment of the [NYYY] annual retention fee.</p>	<p>Please note that the processing of your application will not begin before 2 January [NYYY]</p> <p>Your payment consists of:</p> <p>An application fee of £[xx.yy] And a penalty fee of £[xx.yy] And a pro-rata retention fee for [NYYY] of £[xx.yy] (January NYYY – December NYYY)</p> <p>The application and penalty fees will not be refunded if your application is withdrawn or unsuccessful.</p> <p>Total cost £[xx.yy]</p> <p>Your registration will expire at the end of [NYYY]. We will write to you toward the end of next year to arrange for payment of the [NYYY+1] annual retention fee.</p>
	Default to option (a)	

[YYYY] = the current calendar year

[NYYY] = the next calendar year

[NYYY+1] = the calendar year after next

Appendix 10.3 – Adjustments to the *Application Fee Agreed*

Reversals of Pre-Application Administration and Penalty Fee Waivers					
(i)	Administration fee waiver reversal	Fixed	>0	<ul style="list-style-type: none"> Reinstates an Administration Fee (6(i)) that is zeroed by a waiver (9(i)) Increases the Non-Refundable Agreed by an amount equivalent to the Administration fee 	<ul style="list-style-type: none"> The counterpart waiver (9(i)) must exist Must sum with its counterpart to zero May only be used once
(ii)	Penalty fee waiver reversal	Fixed	>0	<ul style="list-style-type: none"> Reinstates an Penalty Fee (6(ii)) that is zeroed by a waiver (9(ii)) Increases the Non-Refundable Agreed by an amount equivalent to the Penalty fee 	<ul style="list-style-type: none"> The counterpart waiver (9(ii)) must exist Must sum with its counterpart to zero May only be used once
Waivers and Adjustments					
(iii)	Administration fee waiver	Fixed	<0	<ul style="list-style-type: none"> Decreases the Administration fee to zero (£0.00) post-acceptance Decreases the Non-Refundable Agreed by an amount equivalent to the Administration fee 	<ul style="list-style-type: none"> May only be used where no counterpart waivers (9(i), (iii)) are effective
(iv)	Penalty fee waiver	Fixed	<0	<ul style="list-style-type: none"> Decreases the Penalty fee to zero (£0.00) post-acceptance Decreases the Non-Refundable Agreed by an amount equivalent to the Penalty fee 	<ul style="list-style-type: none"> May only be used where no counterpart waivers (9(ii), (iv)) are effective
(v)	Administration fee waiver reversal	Fixed	>0	<ul style="list-style-type: none"> Reinstates an Administration fee that is zeroed by a post-acceptance waiver (iii) Increases the Non-Refundable Agreed by an amount equivalent to the Administration fee 	<ul style="list-style-type: none"> A counterpart waiver (iii) must exist Must sum with its counterpart to zero
(vi)	Penalty fee waiver reversal	Fixed	>0	<ul style="list-style-type: none"> Reinstates an Penalty fee that is zeroed by a post-acceptance waiver (iv) Increases the Non-Refundable Agreed by an amount equivalent to the Penalty fee 	<ul style="list-style-type: none"> A counterpart waiver (iv) must exist Must sum with its counterpart to zero
(vii)	Retention fee adjustment	Variable	<>0	<ul style="list-style-type: none"> Discretionary adjustment of the Retention fee components Decreases or Increases the Refundable Agreed 	<ul style="list-style-type: none"> Must not decrease the Refundable Agreed to below zero Must not increase the Refundable Agreed to above [Maximum scheduled Annual retention fee + Maximum Scheduled Pro-rata registration fee]
(viii)	Non-refundable fee adjustment	Variable	<>0	<ul style="list-style-type: none"> Discretionary adjustment of the Non-refundable processing fee components Decreases or Increases the Non-Refundable Agreed 	<ul style="list-style-type: none"> Must not decrease the Non-Refundable Agreed to below zero Must not increase Non-Refundable Agreed to above [Maximum scheduled Application fee + Maximum scheduled Penalty fee]