

Bank of England Strategic Data Collection Portal

Statement of User Requirements (SOUR)

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Bank of England reference – SG/462



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1 Introduction

1.1 Summary background to this procurement

The Bank of England, as the United Kingdom's central bank, exists so as to ensure both monetary and financial stability and integral to the achievement of such aims is the regulation and supervision of financial institutions. In pursuit of such regulation and supervision, it is important for the Bank to collect data about institutions on a periodic basis and ensure such data is both accurate and of a high quality so that analysis can be carried out with confidence.

The Bank aims to adopt a more strategic approach in its data collection activities, making it easier for financial institutions to supply their data and to ensure a more streamlined governance process. Further, new regulations are emerging which require the Bank to collect, store and analyse larger quantities of increasingly varied data, from institutions in different formats and with varied and differing frequency. Such requirements need to be implemented consistently and in a timely and effective way.

Improvement in the Bank's data collection process is one aspect of a wider strategic data programme which aims to ensure comprehensive knowledge of the data we use, strong data quality controls, improved analytics and robust data distribution.

The Bank has decided its current and future data collection requirements are best achieved through the procurement of a secure, robust, scalable data collection Solution that meets the Requirements contained in this document, with a preference for one that already exists (i.e. commercial off the shelf).

1.2 Overview of the Requirements

The successful Supplier will need to supply and implement a Solution to support the end-to-end process for data collection as defined in this document. In summary this includes:

- The capability to collect, store and manage regulatory, non-regulatory, statistical and financial data from a wide range of reporting organisations and of varying complexity (as defined in Appendix B). The initial requirement being the migration of Existing Data Collections. It is anticipated that additional work will be required to enable future Data Collections.
- Management of Reporting Entities and Reporting Groups, and users within those organisations that will use this Solution to submit data to the Bank as defined in section 2.1.1 and 2.1.2.
- Enabling Reporting Entities to submit data to the Bank robustly and securely using a number of standardised Structured Data and Unstructured Data formats via web forms, file upload and web services as defined in section 2.1.3.
- Supporting the administration, scheduling and workflow for a large number of different Data Collections of varying size, complexity and business processes (as defined in sections 2.1.3 –

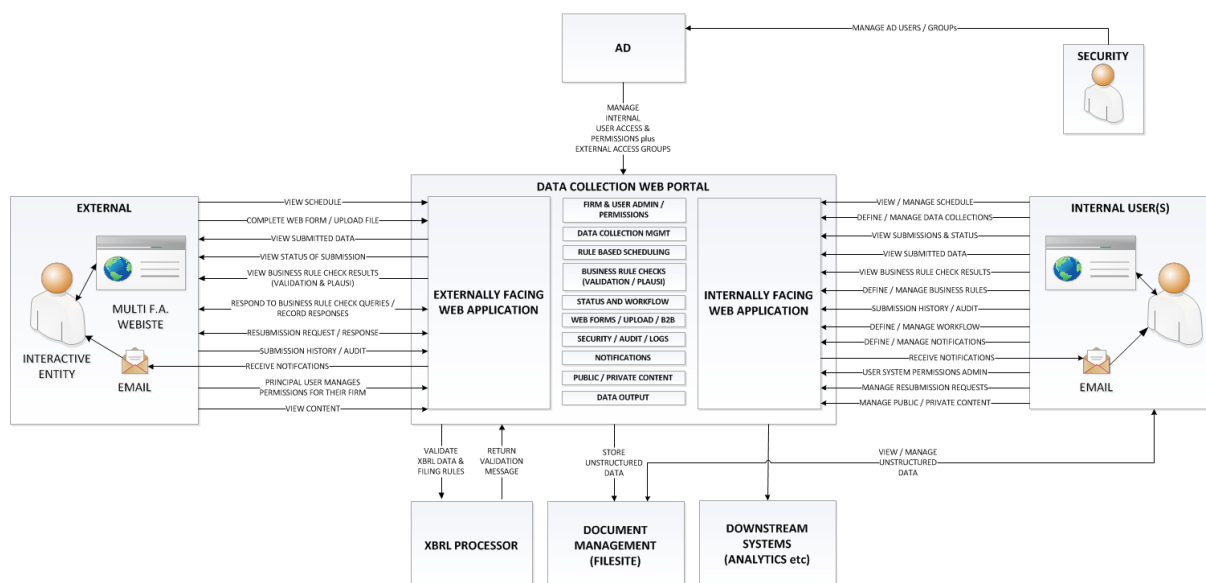


2.1.5.) (initially for the Existing Data Collections with the potential to expand the Solution for future Data Collections)

- Managing the processing of submitted data through various states before being passed to downstream processes as defined in 2.1.6.
- Supporting the definition and execution of automatic and manual business rule checks by applying rules of varying complexity created by business areas as defined in sections 2.1.7 – 2.1.9.
- Supporting a variety of Notifications to internal and external parties for status updates and Validation results as defined in section 2.1.10.
- Allowing users to view the data submitted, subject to security Requirements and resubmit the data if required as defined in sections 2.1.12 and 2.1.13.
- Providing various operational reports to support the day to day management of the Solution as well as being able to maintain supporting content and features for the Solution, as defined in sections 2.1.14 – 2.1.16.
- Integrating and communicating with other internal systems as required in the section 2.2.1 of the Non-Functional Requirements as at the date of implementation (Day 1 Requirements).
- Adhering to the highest standards of security as defined in section 2.2.7 of the Non-Functional Requirements.
- In the future, establishing the potential capability to integrate with other systems such as centralised master data, access and authorisation and middleware as outlined in section 2.8.

1.2.1 Visual representation of 'Day 1 Requirements'

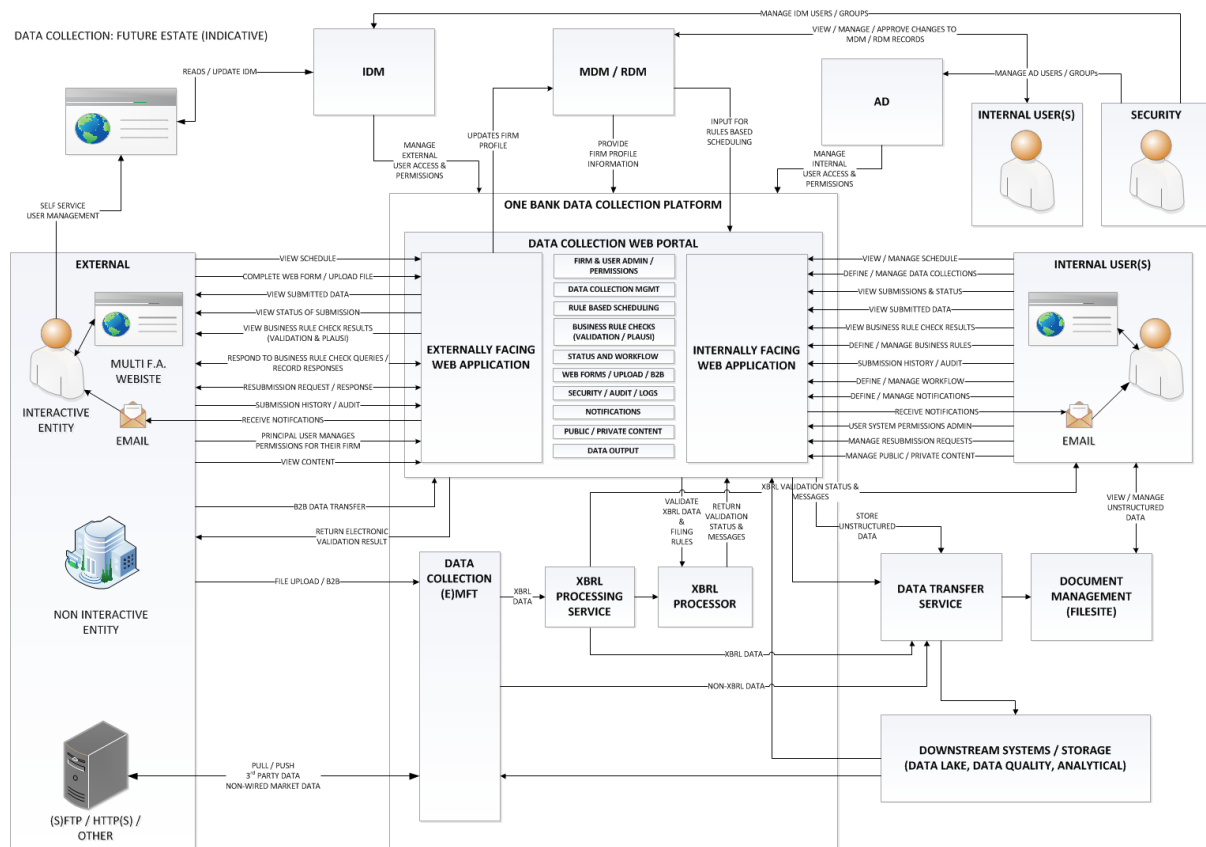
DATA COLLECTION: DAY 1 ESTATE (SIMPLIFIED)





1.2.2 Visual representation of 'Future Requirements' (indicative)

Please note the instruction related to the pricing of Future Requirements on page 25 of the Instructions to Suppliers and Evaluation Criteria document.



1.3 Structure of this SOUR

This SOUR is separated into a number of sections as detailed below.

- Section 2.1, 2.2, 2.5 and 2.7 detail the Functional, Non-Functional, General and Licensing Requirements for the Solution as at the date of implementation (Day 1 Requirements);
- Section 2.6 details the Bank's Requirements in respect of implementing the Solution;
- Section 2.4 details the Bank's Requirements for the migration of it's the Existing Data Collections to the implemented Solution;
- Section 2.3 details the Bank's Service Requirements for the support of the implemented Solution; and
- Section 2.8 addresses the potential Future Requirements (which the Bank may seek the successful Supplier to implement during the term of the Contract). Potential Future Requirements include:
 - Implementation of additional Data Collections (over and above the Existing Data Collections).
 - Integration with other Bank of England systems, not currently provided for in the Day 1 Requirements.



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- Provision of additional features for the Solution over and above those set out in the Day 1 Requirements.

1.4 Interaction between the SOUR and Pricing Schedule

The Pricing Schedule requires that Suppliers submit various charges, which interact with this SOUR as detailed below:

- The Licence Charge (including any third party software costs) to meet the Licensing Requirements set out at paragraph 2.7.
- The Implementation Service Charges should reflect the cost of implementing a Solution so as to meet the Bank's Day 1 Requirements as detailed in this SOUR –excluding all Future Requirements. **Implementation of Future Requirements should not be assumed nor included in this section of the Pricing Schedule.**
- The Maintenance and Support Service Charges should reflect the Supplier's ongoing cost of supporting the Solution.
- The Migration Service Charges costs should reflect the Supplier's costs of migrating the Existing Data Collections as detailed in section 2.4 of this SOUR.
- The Initial Training Charges to cover training which enables the Bank to utilise the Solution in accordance with the Contract from the Go Live Date (as detailed in paragraph 2.2.8)
- The Rate Card should reflect the time and materials costs which will be charged by a successful Supplier if and when the Bank chooses to implement any of the Future Requirements.

1.5 Minimum Requirements

The Bank is following the competitive procedure with negotiation – as defined by section 29 of the Public Contract Regulations 2015 – and as such intends (subject to the process set out in the Instructions to Suppliers an Evaluation document issued with the Tender Materials) to negotiate with Suppliers on the Solutions proposed. The Bank, however, will not negotiate on its Minimum Requirements which a successful Supplier must meet.

Those Requirements that form the set of Technical Minimum Requirements are identified in this SOUR by either (i) a MUST in the 'MoSCoW' column in the requirement tables, or (ii) by being noted as a Technical Minimum Requirement.

1.6 Bank of England software

The Bank will provide the following software, categorised as below:

Category	Product
Operating systems	Windows, Linux or Solaris



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Virtualisation	VMWare
Anti-virus software	Symantec Enterprise Protection or McAfee
External access management	SailPoint
Internal access management	Microsoft Active directory
Monitoring	Microsoft SCOM
Databases	SQL Server
Document management	FileSite

All Requirements must be delivered by the Solution proposed by the Supplier and no assumption or knowledge of existing Bank licensed or owned software should be made nor referenced in response to a given Requirement, except for those which are set out in the above table.

Suppliers must detail and provide itemised costs for any software and related licensing not in the above list within the Pricing Schedule required to deliver a Requirement or set of Requirements.

Licenses and costs should be provided for the duration of the Contract.



2 Requirements

2.1 Functional Requirements

2.1.1 Manage Reporting Entities and Reporting Groups

This section sets out the expectations for delivery of the following capabilities:

- The Bank to register external Reporting Entities and enable them to have access to the Solution.
- Firms that operate within a single Reporting Group to be provided with a shared point of access.
- Retrieving, viewing and editing Reporting Entity profile information.
- Supporting the maintenance of Reporting Entity/Reporting Group contact details.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
A.001	The Solution must provide Internal Users with the ability to register and Enable Reporting Entities to use the Solution. Ease of Use evaluated	MUST		
A.002	The Solution must provide Internal Users with the ability to Disable and prevent Reporting Entities from using the Solution.	MUST		



	Ease of Use evaluated			
A.003	<p>The Solution must provide Internal Users with the ability to Define and Manage a Reporting Group by peer, legal or Reporting Group including all types/levels of consolidation required by reporting rules (e.g. PRA Rulebook, CRR).</p> <p>e.g. to support user management requirements such as allowing a single External User to perform actions in the Solution for multiple Reporting Entities without having to log in multiple times.</p> <p>Ease of Use evaluated</p>	MUST		
A.004	<p>The Solution should automatically retrieve profile data held against a Reporting Entity.</p> <p>e.g. type of Reporting Entity – individual or group, year-end etc.</p>	SHOULD		
A.005	The Solution must provide Internal Users with the	MUST		



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	<p>ability to link one or more Internal Teams or users to one or more Reporting Entities.</p> <p>e.g. a supervisory team or Supervisor responsible for several Reporting Entities.</p> <p>Ease of Use evaluated</p>			
A.006	<p>The Solution must provide Internal Users with the ability to Maintain a Reporting Entity's contact details.</p> <p>Ease of Use evaluated</p>	MUST		
A.007	<p>The Solution must provide External Users with the ability to Maintain their individual contact details and for an Internal User to view these contact details.</p> <p>e.g. contact information may include the name of the principal user, phone number, email, job title etc.</p>	MUST		



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	Ease of Use evaluated			
A.008	<p>The Solution must provide Internal Users with the ability to Define, Manage and store new or additional profile information against a Reporting Entity. This profile information may influence how Schedules are generated for a given Reporting Entity.</p> <p>e.g. profile information includes applicable directives, PRA rule book references, waivers etc.</p> <p>In your response, please describe the mechanisms you have within your Solution to allow such data to be held and Maintained.</p> <p>Ease of Use evaluated</p>	MUST		



2.1.2 Manage users, roles and permissions

This section sets out the expectations for delivery of the following capabilities:

- The Bank and Reporting Entities/Reporting Groups will be able to create and Manage External Users on the Solution, including their roles, permissions and access rights.
- The Bank will be able to create and Manage Internal Users on the Solution, including their roles, permissions and access rights.
- Examples of the range of user roles and permissions are provided in Appendix D which should be read in conjunction with this section.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
B.001	The Solution must provide Internal Users with the ability to Define, Enable, Disable and Manage Internal User and External User Accounts. e.g. an administrative type role that can perform this function (as per Appendix D). Ease of Use evaluated	MUST		
B.002	The Solution must provide External Super Users with the ability to Define, Enable, Disable and Manage External User Accounts within their associated	MUST		



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	<p>Reporting Entity/Reporting Group.</p> <p>e.g. a super user will be expected to set up other administrative or standard External Users.</p> <p>Ease of Use evaluated</p>			
B.003	<p>The Solution must provide External Users with the ability to Manage their security credentials.</p> <p>e.g. change password.</p> <p>Ease of Use evaluated</p>	MUST		
B.004	<p>The Solution must provide Internal Users with the ability to Configure Solution permissions by system role for both Internal Users and External Users.</p> <p>e.g. permissions to access and use data and functionality may be based on the classification of data, by department, by Internal Team etc. For External User roles the Bank may set up “Standard Users” to not see other External User details, but</p>	MUST		



	allow External Super Users to view all External Users within their Reporting Entity/Reporting Group. Ease of Use evaluated			
B.005	The Solution must provide Internal Users with the ability to assign and re-assign roles and related permissions to Internal Users and External Users. e.g. re-assign roles to users within the same Reporting Entity/Reporting Group. Ease of Use evaluated	MUST		
B.006	The Solution must provide Internal Users with ability to define new system roles and permissions. e.g. super user, standard user, internal administrator, Supervisor, etc. (as shown in more detail in Appendix D). Ease of Use evaluated	MUST		
B.007	The Solution must provide Internal Users with the	MUST		



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	<p>ability to manually Enable and Disable Internal User and External User Accounts.</p> <p>e.g. the Bank may want to Disable any users who have not accessed the Solution in a period of time as defined by security requirements.</p> <p>Ease of Use evaluated</p>			
B.008	<p>The Solution should automatically Disable Internal User and External User Accounts based on configurable business rules.</p> <p>e.g. the Bank may want to Disable any users who have not accessed the Solution in a period of time as defined by security requirements.</p>	SHOULD		
B.009	<p>The Solution should provide Internal Users with the ability to monitor the number of External Users set up per Reporting Entity.</p> <p>i.e. view how many users a Reporting Entity has set up for maintenance purposes or to remove</p>	SHOULD		



	<p>unused/challenge excessive accounts.</p> <p>Ease of Use evaluated</p>			
B.010	<p>The Solution should provide the ability for an External User to be associated with all Reporting Entities which are within a single Reporting Group.</p> <p>e.g. User A belongs to Reporting Group “ABC Inc.”, and is therefore associated with Reporting Entities ABC Life, ABC GI, ABC Group.</p> <p>Ease of Use evaluated</p>	SHOULD		
B.011	<p>The Solution should provide the ability for an External User who is associated with a Reporting Group to access and undertake Solution activity on behalf of any Reporting Entity within the Reporting Group, via their user’s account.</p> <p>i.e. the user should not have to log in multiple times through separate User Accounts for each Reporting Entity to process regulatory returns. The user can</p>	SHOULD		



	<p>Manage multiple Reporting Entities that may not be part of the same Reporting Group, but could be part of the same legal group.</p> <p>Ease of Use evaluated</p>			
B.012	<p>The Solution should provide the ability for an External Super User to Manage all User Accounts associated to the Reporting Group.</p> <p>e.g. User A will be able to Manage users for Reporting Entities ABC Life, ABC GI, ABC Group.</p> <p>Ease of Use evaluated</p>	SHOULD		
B.013	<p>The Solution must provide Internal Users with the ability to assign Data Collections to a given External User.</p> <p>e.g. assign the ability to submit data for a given Data Collection to a given user.</p> <p>Ease of Use evaluated</p>	MUST		



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B.014	The Solution should automatically cap the maximum number of External Users a Reporting Entity can Define. This should be configurable by Reporting Entity.	SHOULD		
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2.1.3 Manage Data Collections

This section sets out the expectations for delivery of the following capability:

- The Bank will have the ability to add, Maintain and manage versions of all Data Collection definitions, Templates and taxonomies within the Solution, including related rules and metadata, such as applicable date ranges, reporting timetable etc.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
C.001	The Solution must provide Internal Users with the ability to set up, Enable, Disable and administer types of Data Collections. Ease of Use evaluated	MUST		
C.002	The Solution must allow External Users to select which Data Collections they wish to report data for. Ease of Use evaluated	MUST		
C.003	The Solution must provide Internal Users with the ability to link Data Collections to a given Reporting Entity or Reporting Group so they are able to report	MUST		



	<p>them.</p> <p>E.g. associate the Solvency II Data Collection to a Reporting Group.</p> <p>Ease of Use evaluated</p>			
C.004	The Solution must allow data to be submitted via web forms.	MUST		
C.005	The Solution must allow data to be submitted via file upload.	MUST		
C.006	<p>The Solution must provide the ability to specify the file formats allowed to be submitted for a given Data Collection.</p> <p>N.B. For some Data Collections the Bank may allow multiple formats to cater for varying capability across Reporting Entities.</p>	MUST		
C.007	The Solution should provide Internal Users with the ability to Define metadata for any Data Collection	SHOULD		



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	<p>that is set up on the Solution.</p> <p>This metadata should be able to be extracted in XML, CSV or TXT and used downstream if required.</p> <p>e.g. metadata for format, security classification, Reporting Entity, date, etc.</p> <p>Ease of Use evaluated</p>			
C.008	<p>The Solution must provide Internal Users with the ability to Define, create and Manage web forms used for Data Collection via easy to use and intuitive Solution user interfaces.</p> <p>e.g. design a web form mapped to the data definitions, assign Validation Rules to the form via a form builder/data designer function.</p> <p>Ease of Use evaluated</p>	MUST		
C.009	<p>The Solution should provide Internal Users with the ability to Manage versions of Structured Data</p>	SHOULD		



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	Collections e.g. web forms. Ease of Use evaluated			
C.010	The Solution should show the last date/timestamp a web form used for collecting data or other information was updated. e.g. 'This form was last updated on YYYY-MM-DD HH:MM:SS'	SHOULD		
C.011	The Solution should provide the ability for Internal Users to re-use or copy existing forms by using a 'create like' function when defining and managing new forms. i.e. the ability to copy forms previously created in order to create new ones, if they are similar. Ease of Use evaluated	SHOULD		



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C.012	<p>The Solution should provide the ability for Internal Users to use an 'undo' function when defining and managing new forms which will undo the last change made. The "undo" function allows the Internal User the ability to return to a previous step if an error has been made whilst new forms are being Defined and Managed. It allows the user the convenience of reversing an action to the previous step.</p> <p>Ease of Use evaluated</p>	SHOULD		
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2.1.4 Manage & view Schedules

This section sets out the expectations for delivery of the following capabilities:

- The Solution will provide functionality to enable Reporting Entities – as well as Internal Users – to set up, Manage and view a Schedule of data Submissions.
- The Solution will also support automatic creation of a Reporting Entity's Schedule, based on previously submitted information.
- The Bank will be able to check, validate and amend a Reporting Entity's Schedule if required.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
D.001	The Solution must provide Internal Users with the ability to Define and Manage a Reporting Entity's Schedule of returns. Ease of Use evaluated	MUST		
D.002	The Solution should provide External Users with the option to Define and Manage a Schedule for each Reporting Entity. Ease of Use evaluated	SHOULD		
D.003	The Solution should automatically generate a	SHOULD		



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	<p>Schedule for a Reporting Entity (e.g. automatically generate a Schedule in Q4 for the next 4 quarters or generate a Schedule.)</p> <p>The generation of a Schedule may be based on profile/master data or information in the latest Submission or Resubmission (e.g. automatically generate a Schedule based on rules in the PRA Handbook factoring in specific data).</p> <p>Schedules should be generated for the relevant period using configurable, pre-defined rules for a given Data Collection (i.e. permissions, consolidation scope, etc. held in master data.)</p>			
D.004	<p>The Solution must provide Internal Users with the ability to Manage only the Schedules for Reporting Entities within their Internal Team.</p> <p>e.g. an authorised member of a PRA supervision team may choose to Override a Schedule.</p>	MUST		



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D.005	<p>For each Data Collection on a Schedule, the Solution should automatically determine the Submission Deadline based on the Reporting Entity's profile data and relevant policy rule.</p> <p>e.g. a given collection required 20 weeks after financial year end date.</p>	SHOULD		
D.006	<p>The Solution must automatically log and flag a late return to Internal Users on the Solution for a given Reporting Entity.</p>	MUST		
D.007	<p>The Solution must allow Internal Users to apply extensions or concessions to a Schedule for a given Reporting Entity.</p> <p>Ease of Use evaluated</p>	MUST		
D.008	<p>The Solution must provide Internal Users with the ability to capture the extension date and the reason for the extension, if provided.</p>	MUST		



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	N.B. The Reporting Entity would still be subject to a late return. Ease of Use evaluated			
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2.1.5 Upload and submit data

This section sets out the expectations for delivery of the following capabilities:

- Reporting Entities will be able to submit Qualitative and narrative data, as well as Bank pre-defined Qualitative Templates, and ad hoc data in electronic format.
- Reporting Entities will be allowed to resubmit data within the operating times of the Solution.
- The Bank will accept in formats such as XML or XBRL, but provide functionality to display or present in a more human readable format.
- The Bank will support submission of data in other Standards Based Formats.
- The Solution will support the routing of submitted data to the appropriate repository.
- The Bank will provide Reporting Entities with the ability to write (clarification) responses to a reply to a Validation and/or Plausibility message they receive within the Solution.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
E.001	<p>The Solution must have the ability to receive Structured Data and Unstructured Data Submissions in the following formats: XML, Excel, XBRL, CSV, TXT, PDF, PowerPoint, and Word.</p> <p>N.B. Format(s) will vary according to the Data Collection and Submission route and some Data Collections may accept multiple formats.</p>	MUST		



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E.002	<p>The Solution should have the ability to receive and process data, via alternative processing plan scenario (APP) during a disaster recovery, when the portal is not available. The Bank will make arrangements for the receipt of the data the Solution should support the loading of this data.</p> <p>Please provide details on how your Solution will meet this requirement.</p>	SHOULD		
E.003	<p>The Solution must output data collected either in the original format or in a lightweight structured format (where appropriate) that can be consumed by downstream systems or processes.</p> <p>Data collected as XML should be output as received and proprietary formats should not be used.</p> <p>Data collected as web forms should be output as XML or JSON and aligned to a schema.</p>	MUST		
E.004	<p>The Solution must have the ability to receive</p>	MUST		



	Unstructured Data Submissions. E.g. PDFs, Word documents, PowerPoint slides.			
E.005	The Solution must provide External Users with the ability to upload files individually. Ease of Use evaluated	MUST		
E.006	The Solution must provide External Users with the ability to upload files in a compressed format. On receipt, files must be decompressed automatically. e.g. .zip format.	MUST		
E.007	The Solution should provide an External User with the ability to upload multiple files concurrently for a given Data Collection. Multiple files refer to two or more attachments, whether of the same format or not. For example, a user may want to upload a XBRL file containing all their reports at the same time as uploading two word documents.	SHOULD		



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E.008	The Solution must have the ability to enable multiple streams to run at the same time so that different types of return from different sources can be processed at the same time.	MUST		
E.009	The Solution must provide External Users with a progress indicator when uploading a file(s). e.g. % complete progress bar.	MUST		
E.010	The Solution must provide External Users with the ability to cancel the upload of a file or multiple files after it has commenced. N.B. Cancelled files should also be deleted from the Solution. Ease of Use evaluated	MUST		
E.011	The Solution must provide External Users with the ability to associate additional information with the data being submitted.	MUST		



	<p>e.g. Word document with explanations.</p> <p>Ease of Use evaluated</p>			
E.012	<p>The Solution should provide External Users with the ability to associate additional metadata to the data being submitted.</p> <p>e.g. the External User can select a value from pre-defined drop down list(s) placed on a form. The values for these dropdown lists can be defined by an Internal User.</p> <p>Ease of Use evaluated</p>	SHOULD		
E.013	<p>The Solution should provide External Users with the ability to flag that a Template is either a 'Nil Return' or 'Not Reported' even though it is expected on a Schedule.</p> <p>Ease of Use evaluated</p>	SHOULD		
E.014	<p>The Solution should provide External Users with the ability to submit data without being dependent on a</p>	SHOULD		



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	<p>Schedule.</p> <p>e.g. ad-hoc Submission.</p> <p>Ease of Use evaluated</p>			
E.015	<p>The Solution must provide External Users with the ability to resubmit data at any point, for any historic period, version, for any Data Collection based on the rules/schemas/forms/taxonomies in place at that point.</p> <p>e.g. to correct data.</p> <p>Ease of Use evaluated</p>	MUST		
E.016	<p>The Solution must provide External Users with the ability to specify a reason for Resubmission. The reason for Resubmission can be a predefined list and/or free format. The user should also be able to specify changes since previous Submission or attach an accompanying file detailing the changes.</p> <p>Ease of Use evaluated</p>	MUST		



E.017	The Solution must have the ability to capture the date of Submission/Resubmission and the user ID who made the Submission/Resubmission.	MUST		
E.018	<p>The Solution must provide the ability for Internal Users to view, search and filter the Submission histories for all Reporting Entities, a specific Reporting Entity or Reporting Group in an easy to use and intuitive Solution user interfaces.</p> <p>e.g. filter by Data Collection, date, Reporting Entity, Reporting Group.</p> <p>Ease of Use evaluated</p>	MUST		
E.019	<p>The Solution must provide External Users to view, search, sort and filter their Submission history, the history for all Reporting Entities within their Reporting Group or a specific entity within the Reporting Group in a user friendly way.</p> <p>e.g. filter by Data Collection, date, Reporting Entity,</p>	MUST		



	Reporting Group etc. Ease of Use evaluated			
E.020	The Solution must provide Internal Users with the ability to store and view any return, in any state, submitted by a Reporting Entity (current and previous Submissions). Ease of Use evaluated	MUST		
E.021	The Solution must provide Internal Users with the ability to review and approve Resubmission requests. Ease of Use evaluated	MUST		
E.022	The Solution must provide the ability for submitted and resubmitted data to be placed in a pending state. The pending state is applicable to every Submission and Resubmission and should be configurable based on business requirements for each Data Collection. The Submission will only go to this pending state if it fails a business rule. For example, if data is being provided	MUST		



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	<p>when no reporting Schedule has been created for that entity/date (this should be flagged up within the Solution) or in the case of resubmitted data, the Bank needs to verify the reporting date is correct.</p> <p>E.g. for statistical data, but not Solvency II.</p>			
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2.1.6 Process submitted data

This section sets out the expectations for delivery of the following capabilities:

- The Bank will have the ability to automatically process, store and track Submissions based on the type of data, the metadata provided and pre-defined rules.
- The Bank will be able to add explanatory data to submitted data and apply appropriate controls around the access and sensitivity of data.
- The reporting obligation is fulfilled once the data submitted is deemed valid and accepted.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
F.001	<p>The Solution must automatically determine how to process incoming data based on a set of predefined criteria and rules that make up a series of workflow steps.</p> <p>i.e. “process” means how and where to store, and where to route the data within the Solution (e.g. send for validation).</p> <p>Examples of this are: unstructured Data is sent to a file store, structured Data is sent to a landing zone/storage</p>	MUST		



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	<p>area, XBRL data is sent to a XBRL processor before being sent to a landing zone/storage area</p> <p>Criteria and rules may be based on file format, metadata, type of collection and Reporting Entity profile data etc.</p> <p>This Requirement is a pre-requisite to other integration Requirements as set out in the Non-Functional Requirements.</p>			
F.002	<p>The Solution must receive and store all data submitted, valid or invalid, in its original form.</p> <p>e.g. if a Reporting Entity submits a valid Submission of data, and then at a later point in the same reporting period a Resubmission which is also valid, then both Submissions should be stored. The data does not need to pass Validation to be stored, to allow the Internal Users access to the data in exceptional circumstances i.e. in the event of a technical investigation into failure.</p>	MUST		



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F.003	<p>The Solution should allow Internal Users with specific permissions to amend data received from Reporting Entities in exceptional/emergency circumstances. Any activities must be fully auditable.</p> <p>In normal circumstances if data needs to be corrected or amended the Reporting Entity must be the one who carries this out and then resubmits the data.</p> <p>Ease of Use evaluated</p>	SHOULD		
F.004	<p>The Solution must automatically route Unstructured Data files to the predefined FileSite folder.</p> <p>E.g. documents received from Reporting Entity X go to the Reporting Entity X document management folder.</p>	MUST		



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F.005	<p>The Solution must automatically create links to a single document within multiple folders of FileSite.</p> <p>e.g. different departments will all have their own document storage folder structures and would want to access the data from their existing directories.</p>	MUST		
F.006	<p>The Solution must provide Internal Users with the ability to Define and Configure the rules which determine where to store and name files FileSite.</p> <p>e.g. if the business change their file structure they would want to update the rules to reflect this.</p> <p>Ease of Use evaluated</p>	MUST		
F.007	<p>The Solution must automatically track a Submission Status through various stages of the Submission process.</p> <p>This is tracked by assigning a status.</p> <p>Examples of state include submitted, complete, pending, accepted, failed, etc.</p>	MUST		



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F.008	<p>The Solution must provide Internal Users with the ability to manually Override the status and capture the associated data for audit (even if the predefined quality criteria have not been met). Data that could be captured includes who, when and what etc.</p> <p>Ease of Use evaluated</p>	MUST		
F.009	<p>The Solution should provide Internal Users with the ability to append additional information to a given Submission and view what has been added for it.</p> <p>e.g. details related to Plausibility or business Validation check investigations.</p> <p>Ease of Use evaluated</p>	SHOULD		



2.1.7 Define and Manage business rule checks

This section sets out the expectations for delivery of the following capabilities:

- The Bank will be able to Define and Configure business rule checks that can be applied to a given Data Collection.
- In addition the Bank will be able to version control all Validation Rules, with the ability to select which rules to apply.
- The Bank will be able to be able to test changes to Validation prior to applying them in a production environment.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
G.001	<p>The Solution must provide Internal Users with the ability to Define and Configure business rule checks (i.e. Validation and basic Plausibility checks for any data submitted).</p> <p>e.g. rule details, rule validity period, file format rules, Validation Rules, parameters within the rule y is $> x$, where x is configurable rather than a new rule completely.</p> <p>Ease of Use evaluated</p>	MUST		
G.002	The Solution must provide Internal Users with an	MUST		



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	<p>intuitive and easy-to-learn syntax for defining business rules of varying complexity including equations, logical checks and comparisons.</p> <p>e.g. similar to R, Python or other scripting language or even an Excel like syntax (guidance).</p> <p>Ease of Use evaluated</p>			
G.003	<p>The Solution must allow the Internal Users to develop Validation Rules using a graphical user interface (GUI).</p> <p>Ease of Use evaluated</p>	MUST		
G.004	<p>The Solution must provide Internal Users with the ability to version control business rules and distinguish between the original Validation Rules, updated rules and new rules as well as the Data Collection(s) the rules apply to.</p> <p>e.g. assuming we are now in 2018, we would want to see original rules that were applicable in 2016, which have been updated/added to so as to correct errors (but also</p>	MUST		



	<p>applicable to 2016 data) and which are new and only applicable to 2017 Submissions onwards.</p> <p>Ease of Use evaluated</p>			
G.005	<p>The Solution must provide the ability to set a description for each business rule.</p> <p>e.g. the description can align to an internal description or a description used for rules derived from external sources.</p> <p>Ease of Use evaluated</p>	MUST		
G.006	<p>The Solution should provide the ability for rules to be Defined and run on data already received.</p> <p>i.e. retrospectively if required.</p>	SHOULD		
G.007	<p>The Solution should provide Internal Users with the ability to Define cross check rules between structured Reporting Templates for the same reporting period.</p> <p>Ease of Use evaluated</p>	SHOULD		



G.008	<p>The Solution should provide Internal Users with the ability to Define business rules which incorporate reference data. Reference data will be imported based on Requirement I.001.</p> <p>e.g. the Validation rule formula may take reference data from Third Party Data Sources or upload exchange rates, or interface with reference data systems such as peer groups.</p> <p>Ease of Use evaluated</p>	SHOULD		
G.009	<p>The Solution must provide Internal Users with the ability to switch sets of business rules for a given Data Collection on and off.</p> <p>i.e. every rule, for all Reporting Entities.</p> <p>Ease of Use evaluated</p>	MUST		
G.010	<p>The Solution must provide Internal Users with the ability to switch individual business rules on and off at a rule</p>	MUST		



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	<p>level, on a per Reporting Entity basis (i.e. specific rules, for specific Reporting Entities).</p> <p>This is to cater for the scenario where the Bank has errors in the defined business rules and the Reporting Entity's data is considered correct.</p> <p>Ease of Use evaluated</p>			
G.011	<p>The Solution must provide Internal Users with the ability to indicate which business rules should be run as warnings (soft fail) or errors (hard fail).</p> <p>Ease of Use evaluated</p>	MUST		
G.012	<p>The Solution should provide Internal Users with the ability to differentiate between high impact and low impact business rules.</p> <p>Ease of Use evaluated</p>	SHOULD		
G.013	<p>The Solution should provide Internal Users with the ability to replicate business rules easily using a 'create</p>	SHOULD		



	<p>like' functionality to re-use and adapt existing business rules in a new context.</p> <p>i.e. The ability to copy rules previously created in order to create new ones, if they are similar.</p> <p>Ease of Use evaluated</p>			
G.014	<p>The Solution should provide Internal Users with the ability to undo business rule changes by using an 'undo' function to undo any changes.</p> <p>Ease of Use evaluated</p>	SHOULD		
G.015	<p>The Solution must allow users to Define Validation Rules that compare and combine multiple data items within a Submission record.</p> <p>Ease of Use evaluated</p>	MUST		
G.016	<p>The Solution must allow users to search and filter business rules using various criteria – for example using text, time, collection, validity period, user, category,</p>	MUST		



	business type, rule id and wild-card. Ease of Use evaluated			
G.017	The Solution should allow users to create and Manage business rules in bulk. Ease of Use evaluated	SHOULD		
G.018	The Solution must provide the ability to lock or unlock business rules when being amended. Ease of Use evaluated	MUST		
G.019	The Solution should provide Internal Users with the ability to Define which business rules should be triggered automatically and which manually. e.g. business rules which rely on looking across a certain Reporting Entity population. These should be run once adequate number of Reporting Entities in the required population have made their Submissions, and are therefore more suitable for manual Trigger.	SHOULD		



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	Ease of Use evaluated			
G.020	<p>The Solution must provide Internal Users with the ability to run business rules on Derived Data.</p> <p>e.g. to run business rules on key risk indicator calculations rather than raw data submitted.</p> <p>Ease of Use evaluated</p>	MUST		
G.021	<p>The Solution should provide Internal Users with the ability to apply business rules across like-for-like time-periods due to different year-ends.</p> <p>e.g. Q1 vs Q1 or March vs March, compare data items over a specified number of periods, compare data items to the same period a year ago.</p> <p>Ease of Use evaluated</p>	SHOULD		



2.1.8 Validate files and run business rule checks on submitted data

This section sets out the expectations for delivery of the following capabilities:

- The Bank will be able to automatically and/or manually run basic file checks (i.e. data types, schema checks, syntax, file type) as well as business or technical Validation Rules Defined by the Bank or other authorities, such as EIOPA, EBA, ESMA and others.
- The Bank and Reporting Entities will be able to see where data has failed Validation.
- The Bank will be able to automatically and/or manually run internally defined business rules.
- When investigating failed or flagged business rules, the Bank will be able to capture reasons for failure or reason to Override the checks.
- The Bank will be provided with visual aid when assessing the validity of data.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
H.001	The Solution must apply file checks on file upload. This includes file type, interface with a malware checking solution, XML Validation against an XSD, syntax and structure of a given data transmission format i.e. XML, CSV etc.	MUST		
H.002	The Solution should provide Internal Users with the ability to manually run business rules against submitted data.	SHOULD		



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	<p>e.g. where the Bank switches a rule on or off, or amend a rule the Bank will want to re-run the rules against the data rather than request the Reporting Entity to resubmit, especially when the reason for failure was an ESMA, EIOPA or Bank error.</p> <p>Ease of Use evaluated</p>			
H.003	<p>The Solution must automatically validate Structured Data submitted by any of the delivery routes.</p> <p>e.g. Validation applied to web forms and file uploads.</p>	MUST		
H.004	<p>The Solution must apply business rules automatically driven by effective start and end dates of the rules.</p> <p>e.g. with quarterly returns being introduced there will be an element of seasonality in some of the datasets, (e.g. new business for life investment products, motor premium). Therefore some Plausibility data checks may be need to be period specific driven by the effective date.</p>	MUST		



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H.005	<p>The Solution must automatically be able to determine which business rules should apply to a Resubmission of data.</p> <p>e.g. a previous set of Validation Rules may need to be applied to resubmitted data, and the current Validation Rules applied to new Submissions only.</p>	MUST		
H.006	<p>The Solution must provide Internal and External Users with clear Validation error messages.</p> <p>e.g. a unique Validation reference and the formula in human readable format, or the above also including the Template and figures submitted by the Reporting Entity for reference.</p>	MUST		
H.007	<p>The Solution must provide Internal Users with the ability to view which Validation Rules failed during the data Validation process and drill down to failed data.</p> <p>e.g. flag all the data items which failed Validation at a Template and Data Point level.</p>	MUST		



	Ease of Use evaluated			
H.008	<p>The Solution should provide the ability for information on Validation errors to be retrieved easily and quickly by Internal Users.</p> <p>i.e. within 1 – 2 clicks.</p> <p>Ease of Use evaluated</p>	SHOULD		
H.009	<p>The Solution must have the ability to display the result messages of additional business rule checks generated by a downstream system process, via system integration, on a user interface within the Solution.</p> <p>e.g. results of XBRL Validation returned by an XBRL processor or results generated in XML or other structured format via another system.</p>	MUST		
H.010	<p>The Solution must provide the ability to run business rule checks against data from different Templates in a given Data Collection, for the current period or historic</p>	MUST		



	periods.			
H.011	<p>The Solution must provide Internal Users with the ability to search, sort and filter the results of business rule checks.</p> <p>e.g. by outcome, type etc.</p> <p>Ease of Use evaluated</p>	MUST		
H.012	<p>The Solution should provide Internal Users with the ability to Override the outcome of a business rule check, with the activity fully auditable.</p> <p>Ease of Use evaluated</p>	SHOULD		
H.013	<p>Upon changing the outcome of a business rule check, the Solution should provide Internal Users with the ability to capture any explanatory information. This can be stored with the Submission.</p> <p>i.e. capture notes on the Solution to be stored with the data – refer to append data requirement. A reason is</p>	SHOULD		



	optional (i.e. can be added if investigated). Ease of Use evaluated			
H.014	The Solution should allow Internal Users to annotate and comment on the results of the rule(s) being run at a dataset or individual data element level. Ease of Use evaluated	SHOULD		
H.015	The Solution should allow Internal Users to copy comments related to business rule checks from one comment form to another for the same Reporting Entity. Ease of Use evaluated	SHOULD		
H.016	The Solution should allow External Users to respond to queries related to business rule checks via a web form and for that response to be recorded against a given Submission. Internal Users should be able to initiate queries but also	SHOULD		



	<p>reply to responses from External Users.</p> <p>The history of responses should be viewable by both Internal Users and External Users with appropriate permissions.</p> <p>Ease of Use evaluated</p>			
H.017	<p>The Solution should automatically record the response provided by a Reporting Entity for a Validation or Plausibility failure against the result of a business rule check using the latest response provided by an External User.</p> <p>i.e. without the Internal User having to manually copy and paste response information from the External User into the Solution.</p>	SHOULD		
H.018	<p>The Solution should provide Internal Users with the ability to view explanatory information which is stored with and related to the data item(s).</p> <p>Ease of Use evaluated</p>	SHOULD		



2.1.9 Retrieve reference data

This section sets out the expectations for delivery of the following capabilities:

- The Bank will be able to retrieve and use data from supplied by third party sources within the Solution to support processing activity. Examples of data types include exchange rates, reference data lists and market data. Data might be available through manual upload and batch upload.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
I.001	<p>The Solution should provide Internal Users with the ability to load reference data in a standardised format. This data should come from a third party, file import or another system.</p> <p>E.g. exchange rates for Validation Rules, CIC codes, NACE codes, Country Codes.</p> <p>Ease of Use evaluated</p>	SHOULD		



2.1.10 Manage & send Notifications

This section sets out the expectations for delivery of the following capabilities:

- The Bank will be able to Configure and issue standardised and customised Notifications based on a number of Triggers across the data management lifecycle.
- It will be possible to review, amend, Suppress, and/or release Notifications to Internal and External Users e.g. Reporting Entities will receive Notifications upon different events related to Submission and checking of data.
- When Notifications are sent to External Users, appropriate security should be maintained e.g. sensitive information should not be sent via email and instead the user should be requested to login to the Solution to view the sensitive information.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
J.001	The Solution must be able to issue Notifications to Internal Users and External Users.	MUST		
J.002	The Solution must provide Internal Users with the ability to Define Notifications with fixed content. e.g. static text. Ease of Use evaluated	MUST		
J.003	The Solution must provide Internal Users with the	MUST		



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	ability to Define Notifications with a combination of fixed and variable content, where the variable items are manually populated via a workflow task. Ease of Use evaluated			
J.004	The Solution must provide Internal Users with the ability to Define Notifications with a combination of fixed and variable content, where the variable items are auto populated. Ease of Use evaluated	MUST		
J.005	The Solution must provide Internal Users with the ability to Configure the rules that Trigger generation and issuing of Notifications automatically. e.g. if a Submission received is later than the reporting date, the Solution must Trigger a late return Notification. Ease of Use evaluated	MUST		



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J.006	<p>The Solution must provide Internal Users with the ability to manually generate and issue Notifications.</p> <p>Ease of Use evaluated</p>	MUST		
J.007	<p>The Solution must provide Internal Users with the ability to review and customise both manually and automatically generated Notifications before they are sent.</p> <p>Ease of Use evaluated</p>	MUST		
J.008	<p>The Solution should automatically release a Notification after a predefined period of user review time based on rules.</p> <p>e.g. Supervisor to respond in 24 hours if they don't want a Notification sent.</p>	SHOULD		
J.009	<p>The Solution must be able to issue Notifications to specific individual External Users and Internal Users as well as specific groups of External and Internal Users.</p>	MUST		



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J.010	<p>The Solution must enable External Users to receive multiple Notifications for different Data Collections.</p> <p>Notifications must be distinguishable.</p>	MUST		
J.011	<p>The Solution must automatically issue Notifications to inform Internal Users when user action is required within the Solution.</p> <p>e.g. when a Plausibility Outcome requires some kind of manual action (e.g. investigation, review of a Notification or over-riding of a Plausibility Outcome).</p>	MUST		
J.012	<p>The Solution must provide Internal Users with the ability to switch Notifications on and off by type of Notification (examples of which can be found in Appendix C) and/or by Reporting Entity in advance of being triggered.</p> <p>e.g. to exclude Reporting Entities from receiving specific or all Notifications types, or to turn a Notification off for all Reporting Entities.</p>	MUST		



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	Ease of Use evaluated			
J.013	<p>The Solution should provide External Users with the ability to respond to a business rule check Notification and for the Solution to store the information and retain an audit trail of the communication.</p> <p>e.g. the Bank issues a Notification to an External User of Plausibility queries and the External User responds to that query with a record Maintained by the Solution.</p> <p>Ease of Use evaluated</p>	SHOULD		
J.014	<p>The Solution should provide External Users with the ability to associate a file (via file upload) with a response to a Validation and/or Plausibility Notification and for the Solution to store the information. Any documents submitted in response to a validation / plausibility notification will be stored in FileSite and a link to it generated and displayed on the relevant Solution user interface.</p>	SHOULD		



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	<p>e.g. the External User responds to a Plausibility query with an explanatory message as well as an attached spreadsheet. The spreadsheet is retained alongside the message.</p> <p>Ease of Use evaluated</p>			
J.015	<p>The Solution must provide status Notifications to External Users related to their Submission.</p>	MUST		
J.016	<p>The Solution must be able to issue Notifications to Internal Users and External Users when Resubmissions are received for a given Data Collection.</p> <p>N.B. This feature will vary by Data Collection.</p>	MUST		



2.1.11 Share data with third parties

This section sets out the expectations for delivery of the following capabilities:

- The Bank will be able to prepare, extract and transfer data to third parties. Preparing the data will include capabilities such as defining, reviewing and filtering the data set.
- The data could be all the raw data received from Reporting Entities, or a subset thereof.
- Extracting the data will include capabilities to do so automatically or manually into various formats.
- Transferring the data will include automatically and/or manually sending data to third parties.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
K.001	<p>The Solution must output an XML 'wrapper'/metadata file where required for a given Data Collection type for a Submission. This 'wrapper'/metadata file should accompany the Submission for onward transmission or may wrap the reported data for onward processing.</p> <p>For example the EIOPA metadata file should be output with XBRL Instances for onward transmission to EIOPA (which happens via a separate SFTP process that will</p>	MUST		



	pick up the output and send to EIOPA).			
K.002	<p>The Solution must provide Internal Users the ability to specify a naming convention for files output for onward transfer.</p> <p>e.g. EBA or EIOPA naming convention.</p> <p>Ease of Use evaluated</p>	MUST		
K.003	<p>The Solution must provide Internal Users with the ability to view, sort and filter Submissions via a dashboard prior to selecting items for onward sharing/output from the Solution in the original data format received.</p> <p>Ease of Use evaluated</p>	MUST		
K.004	<p>The Solution must provide the ability for Internal Users to automatically output data in the original data format received for onward sharing or consumption.</p> <p>e.g. XML files compliant with the schema used for</p>	MUST		



	reporting a given set of data. Ease of Use evaluated			
K.005	The Solution must provide Internal Users with the ability to extract data from the Solution in the format of Submission. e.g. invalid XBRL file requiring technical investigation. Ease of Use evaluated	MUST		
K.006	The Solution should provide Internal Users with the ability to manually stop data being automatically output for sharing. e.g. a user may wish to pull out a particular Reporting Entity's data being sent to EIOPA. Ease of Use evaluated	SHOULD		



2.1.12 Maintain & view submitted and resubmitted data

This section sets out the expectations for delivery of the following capabilities:

- The Bank will be able to view and print data received by the Reporting Entity in a clear and meaningful format.
- The Bank will be able to view the latest Submission and track changes between data across Submissions.
- The Bank will be able to view notifications received from third party systems related to a given submission.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
L.001	<p>The Solution must display messages received from third party systems that the Bank submits data to (e.g. EIOPA Hub) to Internal users.</p> <p>These messages must be associated to the exact Submissions received from firms, such that an Internal User can see if the Submission was accepted or rejected by the third party system and why.</p>	MUST		
L.002	<p>For certain collections, the Solution must allow External Users to view their Submissions in draft before actually submitting the data.</p>	MUST		



	<p>N.B. This should be configurable by collection type, potentially related to the security classification of the data.</p> <p>Ease of Use evaluated</p>			
L.003	<p>The Solution should provide Internal Users with the ability to view, sort and filter data submitted in a readable and meaningful format.</p> <p>e.g. XBRL Taxonomy data viewable in the Reporting Templates Defined in the taxonomy.</p> <p>Ease of Use evaluated</p>	SHOULD		
L.004	<p>The Solution should provide Internal Users with the ability to view, sort and filter dimensional data (e.g. data with Z axis dimensions) in a readable and meaningful format via a user interface.</p> <p>Ease of Use evaluated</p>	SHOULD		
L.005	<p>The Solution should provide Internal Users with the</p>	SHOULD		



	ability to view, sort and filter data with open X, Y or Z axis in a readable and meaningful format via a user interface. Ease of Use evaluated			
L.006	The Solution should provide Internal Users with the ability to print: <ul style="list-style-type: none">• Data submitted by a Reporting Entity in a readable and meaningful format.• Dimensional data in a readable and meaningful format.• Data with open axis' in a readable and meaningful format. Ease of Use evaluated	SHOULD		
L.007	The Solution must provide Internal Users with the ability to identify the most recent version of a file submitted by a Reporting Entity. e.g. latest Submission was submitted on DD/MM/YYYY.	MUST		



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L.008	<p>The Solution should provide Internal Users with the ability to identify the most recent version of the same data point (e.g. the SCR figure) from multiple Submissions by a Reporting Entity – so as to allow them to identify a change.</p> <p>Ease of Use evaluated</p>	SHOULD		
L.009	<p>The Solution should provide Internal Users with the ability to view changes of the same data point across multiple Submissions by a Reporting Entity.</p> <p>E.g. field X change in Submissions 1, 2, 3 and 4.</p> <p>Ease of Use evaluated</p>	SHOULD		
L.010	<p>The Solution should provide Internal Users with the ability to pivot the data set they are viewing.</p> <p>e.g. for a current reporting period or across reporting periods.</p> <p>Ease of Use evaluated</p>	SHOULD		



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L.011	<p>The Solution should provide Internal Users with the ability to drill down on data to its lowest level of granularity.</p> <p>Ease of Use evaluated</p>	SHOULD		
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2.1.13 Maintain & view audit information

This section sets out the expectations for delivery of the following capability:

- The Bank will be able to Maintain an audit log of system activity and events. This record will be accessible and viewable to appropriate users.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
M.001	<p>The Solution must record an audit log of system activity and provide Internal Users with a view of the log.</p> <p>At minimum these must cover log in/security authentication records, viewing, access and any updates.</p> <p>Further examples of logs we may to record are Internal User and External User activity, scheduling activity, file uploads, third party data sent, Validation activity, Notification activity, reporting activity, data access activity, data changes, changes to rules.</p> <p>N.B. Over logging system information is not desirable.</p>	MUST		



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M.002	<p>The Solution should keep an audit record of every set of data sent to a third party via the Solution, including but not limited to what data was sent and when.</p> <p>e.g. see a line by line record of Submissions sent, and be able to access the actual contents sent as well.</p>	SHOULD		
M.003	<p>The Solution must keep an audit record of all Notifications sent by the Solution both to Reporting Entities and Internal Users.</p>	MUST		
M.004	<p>The Solution must provide Internal Users with the ability to restrict access to all system and user activity audit logs as well as the ability to search, filter and export this data. This should be restricted to certain system roles.</p> <p>Ease of Use evaluated</p>	MUST		



2.1.14 Operational reporting

This section sets out the expectations for delivery of the following capabilities:

- The Bank will be able to generate reports which detail activity being undertaken and the status of information being processed throughout the Solution.
- Areas of interest for operational reporting will include, for example: system usage and status; metrics on data Submissions; Resubmissions; information on Schedules; Validation and Plausibility activity; and data sent to third parties.
- Some reporting may be achieved through extracts of data from the Solution or report generation, whilst some information may be displayed on screen for users to be able to view.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
N.001	The Solution should provide Internal Users with the ability to identify Reporting Entities that have not set up a Schedule. E.g. Reporting Entity X has no Schedule created as of DD/MM/YYYY. Ease of Use evaluated	SHOULD		
N.002	The Solution must provide Internal Users with the ability to differentiate and flag Valid Data and Invalid	MUST		



	<p>Data.</p> <p>This Requirement should indicate visually the difference between Valid Data and Invalid Data received. This is not specific to a data format.</p> <p>Ease of Use evaluated</p>			
N.003	<p>Per Submission, the Solution should provide Internal Users with the ability to view an on screen summary of information regarding the quality of data submitted.</p> <p>e.g. data valid, 3 Red, 4 Amber and 2 Green Plausibility Outcomes.</p> <p>Ease of Use evaluated</p>	SHOULD		
N.004	<p>Per Submission, the Solution should provide Internal Users with the ability to view the status of a Submission on screen via a report.</p> <p>e.g. submitted, validated, Plausibility checked, exported etc.</p>	SHOULD		



	Ease of Use evaluated			
N.005	<p>The Solution should provide Internal Users with the ability to generate a report which lists the rules that are in place and any related information.</p> <p>e.g. the end date for rule for review purposes.</p> <p>Ease of Use evaluated</p>	SHOULD		
N.006	<p>The Solution should provide Internal Users with the ability to report the Submission Status and the associated Validation Outcome.</p> <p>Ease of Use evaluated</p>	SHOULD		
N.007	<p>The Solution should provide Internal Users with the ability to extract the states of all and individual data Submissions at any time.</p> <p>Ease of Use evaluated</p>	SHOULD		
N.008	<p>The Solution should provide Internal Users with a view of all Reporting Entities which have passed Validation</p>	SHOULD		



	via a dashboard. Ease of Use evaluated			
N.009	The Solution should provide Internal Users with a view of all Reporting Entities which failed Validation via a dashboard. Ease of Use evaluated	SHOULD		
N.010	The Solution should provide Internal Users with the ability to produce a report on any of the data audited within the Solution. Ease of Use evaluated	SHOULD		
N.011	The Solution should provide Internal Users with the ability to report on which Submissions are late and for which Reporting Entities. Ease of Use evaluated	SHOULD		
N.012	The Solution should provide Internal Users with the ability to report on the number of logged on users at	SHOULD		



	the current point in time. Ease of Use evaluated			
N.013	The Solution should provide Internal Users with the ability to report on the number of logged on users at a historic point in time. Ease of Use evaluated	SHOULD		
N.014	The Solution should provide Internal Users with the ability to report on the number of uploads at a given point in time, as a total or filtered by Data Collection. Ease of Use evaluated	SHOULD		
N.015	The Solution should provide Internal Users with the ability to see and report on workflow tasks that have been assigned to Internal Users for workload management purposes. Ease of Use evaluated	SHOULD		
N.016	The Solution should provide Internal Users with the	SHOULD		



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	ability to Define their own custom reports for Solution activity.			
	Ease of Use evaluated			



2.1.15 Maintain help, guidance and generic content

This section sets out the expectations for delivery of the following capabilities:

- Internal Users and External Users will be presented with sufficient on-screen help text and guidance to support effective use of the Solution.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
O.001	<p>The Solution must provide the ability for Internal Users to Define new and Manage any existing content and content pages (e.g. FAQ pages, home page text, new pages with information, guidance pages, etc.) via an administration user interface.</p> <p>N.B. Such content pages can be either available publicly or privately (after authentication).</p> <p>Ease of Use evaluated</p>	MUST		
O.002	<p>The Solution should provide Internal Users with the ability to inform External Users when the Solution is unavailable.</p>	SHOULD		



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	Ease of Use evaluated			
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2.1.16 Provide user support capabilities

This section sets out the expectations for delivery of the following capabilities:

- The Bank user support teams will be provided with the capabilities necessary to provide suitable first line user support, including the ability to see what the Reporting Entities are able to see as External Users of the Solution, including Solution views and messages.

Reference	Requirement	MoSCoW	SRC	Descriptive Response
P.001	The Solution must provide Internal Users with the ability to emulate a Reporting Entity's view of the Solution to help provide user and technical support to Reporting Entities. Ease of Use evaluated	MUST		



2.2 Non-Functional Requirements

2.2.1 Compatibility & integration

This section sets out the compatibility and integration Requirements of the Solution.

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR001	Document Management	<p>The Solution must be integrated with FileSite (the Bank's document management system) to store unstructured documents by the Supplier.</p> <p>Please detail how you will deliver this Requirement?</p> <p>In your response please provide details on the following:</p> <ul style="list-style-type: none">• The outputs, APIs and/or services available.• How these are Managed and monitored.• How integration is achieved.• How data is interchanged (when implemented in the Bank's environment).• The industry standard data schemas that are supported.• Will authentication be required? How will authentication	MUST		



		<p>be achieved? Does this happen within the Solution? How do the application and data tiers authenticate?</p> <p>N.B. This Requirement must be itemised within the Pricing Schedule.</p>													
NFR002	Infrastructure and Operating Systems	<p>The Solution must be compatible with the Bank’s existing infrastructure products, tools and services for hosting, management and security products and operating systems as listed in section 1.6.</p> <p>These are as copied for ease of reading in the table below:</p> <table><tr><th>Category</th><th>Product</th></tr><tr><td>Operating systems</td><td>Windows, Linux or Solaris</td></tr><tr><td>Virtualisation</td><td>VMWare</td></tr><tr><td>Anti-virus software</td><td>Symantec Enterprise Protection or McAfee</td></tr><tr><td>External access</td><td>SailPoint</td></tr></table>	Category	Product	Operating systems	Windows, Linux or Solaris	Virtualisation	VMWare	Anti-virus software	Symantec Enterprise Protection or McAfee	External access	SailPoint	MUST		
Category	Product														
Operating systems	Windows, Linux or Solaris														
Virtualisation	VMWare														
Anti-virus software	Symantec Enterprise Protection or McAfee														
External access	SailPoint														



		<table><tr><td>management</td><td></td></tr><tr><td>Internal access management</td><td>Microsoft Active Directory</td></tr><tr><td>Monitoring</td><td>Microsoft SCOM</td></tr><tr><td>Databases</td><td>SQL Server</td></tr><tr><td>Document management</td><td>FileSite</td></tr></table>	management		Internal access management	Microsoft Active Directory	Monitoring	Microsoft SCOM	Databases	SQL Server	Document management	FileSite			
management															
Internal access management	Microsoft Active Directory														
Monitoring	Microsoft SCOM														
Databases	SQL Server														
Document management	FileSite														
		<p>The Solution must be hosted within the Bank’s existing hosting infrastructure:</p> <ul style="list-style-type: none">• Vmware virtual servers.• Systems management – SCCM/SCOM , RDP.• Enterprise Backup – Simpana.• Security: Symantec or McAfee, Access Management: AD, SailPoint, integration to SIEM (RSA Security Analytics).• CITRIX.• OS – Windows 12, RHEL 6.x.													



NFR003	Monitoring	The Solution must be integrated with Microsoft SCOM by the Supplier.	MUST		
NFR004	SQL Repository	<p>The Solution must use a Microsoft SQL Server operational data store.</p> <p>If yes, please provide more details on how this is achieved and include the following information in your response:</p> <ul style="list-style-type: none">• Please confirm editions, versions and patch level/service packs required.• Will your Solution use any non-standard/legacy features or advanced features of the database or data storage technology?• How do system components authenticate with the database?	MUST		
NFR005	Virtualisation	<p>The Bank has a principle of deploying solutions to a virtualised environment currently based on VMWare.</p> <p>Please describe the mechanisms and channels that enable remote administration.</p>	MUST		



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NFR006	Desktops and laptops	<p>The Solution must be available to Internal Users via a standard Bank of England laptop build and via remote access.</p> <p>The standard Bank laptop runs Windows 7 and applications are packed using Microsoft App-V. Please describe how any client software used by your Solution would conform to this specification.</p> <p>The Bank uses Citrix as its preferred VDI solution to deliver applications remotely via our VPN. Please describe how any client software used by your Solution would conform to this specification.</p>	MUST		
NFR007	XBRL Processor	<p>The Supplier must integrate the Solution with the XBRL processor used by the Bank which is currently the CoreFiling TrueNorth XBRL processor, web services version, but please be aware that this is subject to re-tender.</p> <p>e.g. integrate and return Validation messages.</p>	MUST		



		<p>Will your Solution provide this ability? If yes, please provide details on the following:</p> <ul style="list-style-type: none">• The outputs, APIs and/or services available.• How these are managed and monitored.• How integration is achieved.• How data is interchanged (when implemented in the Bank's environment).• The industry standard data schemas that are supported.• Will authentication be required? If so how will authentication be achieved? <p>N.B. This Requirement must be included as an itemised option within the Pricing Schedule.</p>			
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2.2.2 Data

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR008	Virtualisation	The Solution must accurately present Notifications, data Submissions, history and status to all system users.	MUST		
NFR009	Integrity	The Solution must maintain the integrity (i.e. syntax and content) of collected data from the point of receipt by the Solution throughout the processing, Validation and onward transmission to downstream systems.	MUST		
NFR010	Principles	The Solution must be able to store the data in the original format that it has been submitted in.	MUST		



2.2.3 Development & maintenance

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR011	Changeability	The Solution must provide documented access to the underlying physical database and data model of the Solution to enable the Bank to create its own reports or use the data in other systems.	MUST	N/A	
NFR012	Secure code development	<p>The Supplier must develop any code as part of the Solution with security in mind.</p> <p>In your response please ensure you also provide details on:</p> <ul style="list-style-type: none">• The way security is implemented within code software and scripts.• Any recognised security or quality processes that will be employed.• What assessments will be performed to identify product vulnerabilities.	MUST	N/A	



		<ul style="list-style-type: none">If there is any built-in protection from malicious software (e.g. integrity checks).			
NFR013	Deployment	<p>The Solution must allow any changes to the Solution to be packaged up and deployed incrementally and automatically.</p> <p>Please provide details on the deployment model for all the tiers of your Solution.</p> <p>In your response please provide particular details and examples related to:</p> <ul style="list-style-type: none">Deployment of segregated services/Data Collection streams?Deployment of patches.Permissions/privileges required by components.Tools required/provided for deployment.	MUST	N/A	
NFR014	Environments	<p>The externally facing test environments of the Solution must be clearly distinguishable so the user knows which version they are accessing.</p>	MUST	N/A	



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NFR015	Environments	The Solution must provide the ability for External Users to be given different login credentials to login to different environments.	MUST	N/A	
NFR016	Environments	The Solution must be extendable to include new Data Collections and related configuration without having to rebuild the entire Solution.	MUST	N/A	
NFR017	Environments	The Solution must provide the ability to make patches and minor changes to the Solution without a full reinstall.	MUST	N/A	
NFR018	Environments	The Solution must provide the ability for different environments to run different versions of the product so, for example, an upgrade can be tested on a test environment before it is installed in production.	MUST	N/A	
NFR019	Release and Configuration	The Solution must provide the ability to manage the release and configuration of all components within the Solution and in an automated manner.	MUST		



2.2.4 Disaster recovery

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR020	Business Continuity	<p>The Solution must have a disaster recovery solution.</p> <p>The solution must support a mirrored active/active production configuration. Please confirm how your solution supports this Requirement.</p> <p>N.B. This Requirement must be included in your response to the Pricing Schedule.</p> <p>The Supplier does not need to provide infrastructure.</p>	MUST		



2.2.5 Efficiency

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR021	Processing	<p>The Solution must support parallel processing of multiple submissions of the same or different Data Collections by different Reporting Entities</p> <p>E.g. N Reporting Entities submit a given Data Collection at the same time.</p>	MUST		
NFR022	Performance Data	<p>It must be possible to collect and view performance data of the Solution as data is processed using Microsoft SCOM.</p> <p>The Solution should underpin the Bank's need to measure the following:</p> <ul style="list-style-type: none">• Upload to external interface.• Transfer from external interface to data repository.• Transfer from core.	MUST	N/A	



		<ul style="list-style-type: none"> • Time to process Validation and Plausibility Rules. • Solution statistics. • Usage trends. • Processing/data peaks. <p>Please describe how your Solution will collect performance data and what data is available.</p> <p>Please provide examples of performance metrics for a similar sized organisation to the Bank for different types or formats and file sizes processed.</p>			
NFR023	Scalability	<p>The Solution must have the ability to scale to meet increasing volumes and frequency of data or computation and must not degrade in performance at points of peak usage. See Appendix B for further details</p> <p>e.g. in a given quarter, following the introduction of a new Data Collection how the Solution would scale if:</p> <ul style="list-style-type: none"> • The volume of Reporting Entities doubled from 	MUST	N/A	



		<p>1000 to 2000</p> <ul style="list-style-type: none">• The extra 1000 Reporting Entities were reporting data on a daily basis, whilst the existing 1000 Reporting Entities reports on a quarterly basis• The extra 1000 Reporting Entities submitted an additional 5GB – 10GB in total on a daily basis• 100 of the extra Reporting Entities submitted data concurrently. <p>In your response please ensure that you also include the following information:</p> <ul style="list-style-type: none">• How individual components of your Solution can be scaled.• Whether they scale best ‘horizontally’ (e.g. more server) or ‘vertically’ (i.e. more memory processors etc.) or both.• Include performance metrics or benchmarking to support your response.• The impact on the Bank’s environment hosting the			
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		Solution.			
NFR024	Validation Response Times	<p>The Solution must validate submitted data and return a Validation message quickly and efficiently, relative to the size and complexity of the Submission.</p> <p>In your response please refer to the following typical examples for context:</p> <ol style="list-style-type: none">1. An XML file containing 10,000 rows for 50 attributes2. An XML file that is ~30Mb in size with 30 attributes3. A set of 10 XML files for a given Data Collection, each with 20,000 rows with 100 attributes and over 50 cross checks. <p>N.B. This Requirement applies to Validations carried out by the Solution and not by a downstream system e.g. XBRL processor.</p>	MUST	N/A	
NFR025	Web	The Solution should load user interfaces in a specified	SHOULD	N/A	



	Application Response Times	<p>timeframe as categorised below:</p> <p><u>Simple pages (text content only)</u></p> <p>Average time to load a user interface on screen should be less than 1 second for 95% of page loads.</p> <p><u>Medium complex (Low data intensive pages)</u></p> <p>Average time to load a user interface on screen should be less than 3 seconds for 95% of page loads. These pages should load asynchronously/or in small parts and provide the user with indication of progress.</p> <p><u>Complex (High data intensive pages)</u></p> <p>Average time to load a user interface on screen should be less than 7 seconds for 95% of page loads. These pages should load asynchronously/or in small parts and provide the user with indication of progress.</p> <p>In your response , please refer to the following example for context:</p>			
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		<ul style="list-style-type: none">• 200 concurrent users.• Display of a table with closed X and Y dimensions.• Display of the table with open Y and/or Z axis dimensions.• Display of a table with 10,000 rows with the ability to filter. <p>N.B. Reporting Entity network and browser performance will not count against this metric.</p>			
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2.2.6 Reliability

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR026	Reliability	<p>The Solution should be able to restart from the last committed transaction in the event of a system failure.</p> <p>Please describe how the Solution delivers this Requirement.</p>	SHOULD	N/A	



2.2.7 Security

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR027	Access – Principle of Least Privilege	<p>The Solution must use role based access to control what Solution features and data users are able to use based on the principal of least privilege.</p> <p>In your response please ensure details are provided on the following:</p> <ul style="list-style-type: none">• How authorised user groups/roles are managed.• Whether application functionality and data can be accessed by means which might not be identified and authenticated.• How does one determine which users are entitled to access particular features?• If granular access rules/permissions can be applied to application functionality and data	MUST		



		<p>based on user or group.</p> <ul style="list-style-type: none">• What granular permissions are available as standard.• Whether new roles and permissions could be added without further development or not.• What privileges are needed in order to perform security and/or Solution functions.• How privilege account access is monitored.• How anomalies in regard to privileged account access are alerted.• Whether privileged actions are audited, and if so how the audit information is stored and accessed.			
NFR028	Auditing	<p>The Solution must automatically record an audit trail of all events under the control of the Solution. The audit log should contain as a minimum:</p> <ul style="list-style-type: none">• The user executing the action• The date & time of the event	MUST		



		<ul style="list-style-type: none">• The action being executed• Security/Login reporting (incl. failed logins) <p>In your response please provide details on what events and actions are logged by the Solution for audit or security purposes? By what mechanism are these logged?</p>			
NFR029	Auditing – Errors	It should be possible for Internal Users responsible for support to be able to view the error log of all activity to enable incident and problem diagnosis and investigation.	SHOULD		
NFR030	Auditing – MI	It should be possible for audit log information to be made available to the Bank in the form of management information available both online, with the ability to filter search by criteria.	SHOULD		
NFR031	Auditing – Storage	The Solution should store audit logs securely and be tamper proof. The logs should be retained for 7 years.	SHOULD		



		In your response please detail how audit records are secured and made tamper proof and how access to logs are controlled.			
NFR032	Authentication – External	The Solution must use recognised industry standard strong multi factor authentication.	MUST		
NFR033	Authentication – Internal	<p>It must be possible for Internal Users to authenticate using single sign on.</p> <p>The Solution must use Active Directory (AD) for authentication with users belonging to the appropriate AD group that determines role based access.</p> <p>Please provide details on how your Solution will support AD based authentication.</p> <p>Please give details of versions and service packs that will be required.</p>	MUST		
NFR034	Encryption	The Solution must utilise encryption standards as defined/approved by the Bank's IT Security Consultancy	MUST		



		<p>team. E.g. AES256.</p> <p>The Solution should ensure that the data is protected as it is transmitted between external parties and the Bank.</p> <p>Please provide details of the encryptions standards that your Solution uses including ciphers and protocols.</p> <p>Please also provide details on the following:</p> <ul style="list-style-type: none">• How will certificates or keys be managed?• How will encryption be applied to stored data?• How will encryption be applied to data transmitted internally and externally to the application?			
NFR035	Encryption	<p>All Bank data-at-rest, data in transit and communications links must be encrypted where technology allows. Where encryption is not possible, practical technical and non-technical mitigation measures must be implemented.</p> <p>Please describe how the Solution will deliver this</p>	MUST		



		Requirement, particularly on how this is achieved and for what data.			
NFR036	Fingerprinting	The Solution must apply 'finger printing' of files on upload.	MUST		
NFR037	Fingerprinting	The Solution should apply 'finger printing' on file receipt to check it matches the fingerprint of the file uploaded.	SHOULD		
NFR038	General	<p>The Solution must be developed according to the Open Web Application Security Project (OWASP) application security development principles.</p> <p>Please describe how your Solution incorporates these security development principles.</p>	MUST	N/A	
NFR039	Incident Monitoring & Response	<p>The Solution must enable the Bank to monitor security incidents.</p> <p>In your response provide details on how the Solution collects logs or audit information on security incidents e.g. breaches of access control policy, brute force attempts, static data changes, adding, removing and</p>	MUST	N/A	



		<p>changing users, activity tracking, tampering with system files.</p> <p>Please also provided information on:</p> <ul style="list-style-type: none">• What is recorded.• What format is it recorded in.• Where it is recorded (e.g. Windows Event Log, proprietary text file, database tables).• How logs are accessed?			
NFR040	Malware	<p>The Solution must apply malware and virus checking to all uploaded files in a DMZ before transferring to the Bank's internal network.</p>	MUST		
NFR041	Security Monitoring	<p>The Solution must be capable of identifying how many users are and who is logged on/using the Solution, their IP address and time with this log information recorded in the Bank's SIEM (Security Information Event Management) system.</p> <p>In your response please provide details on: whether the</p>	MUST	N/A	



		Solution will be able to identify how many users are logged on or using the Solution; who they are; their IP address and the time; and confirm whether this information can be used by a SIEM system.			
NFR042	Passwords	The Solution must not present passwords unmasked.	MUST		
NFR043	Passwords	The Solution must not store passwords in clear text and should be stored as a salted hash. In your response please include details on any password management controls that will be in place (e.g. password complexity, history, ageing).	MUST		
NFR044	Passwords	The Solution must enable the transfer of passwords over a secure connection provided by the Bank.	MUST		
NFR045	Passwords	The Solution must enforce strong password formats.	MUST		
NFR046	Penetration Testing	The Supplier must remediate all 'critical' and major faults and vulnerabilities identified from penetration testing carried out by the Bank.	MUST	N/A	



		<p>N.B. Outstanding faults and vulnerabilities will need to be reviewed by the Bank's IT Security Consultancy and Vulnerability teams with guidance provided where required, with the Bank's CISO (Chief Information Security Officer) providing approval or rejection before launch.</p> <p>N.B. The Solution must also be penetration tested at regular intervals post launch by the Bank.</p>			
NFR047	Security questions/answers	The Solution must follow industry best practices for implementing any set of security questions for external party User Accounts and related answers.	MUST		
NFR048	Session Inactivity Timeout	It must be possible to set an automatic timeout value (e.g. 20 minutes) for inactivity and for this value to be configurable within the Solution.	MUST		
NFR049	Session Termination	The Solution must terminate the session when the browser window is closed by an internal or External User, when they log off, or if the Solution terminates	MUST		



		unexpectedly the session. The Solution should use session based cookies.			
NFR050	Transient Data	The Solution must only store minimal to no data in the DMZ. Any data uploaded to the portal should be transient in the DMZ before being stored downstream on Bank infrastructure.	MUST	N/A	
NFR051	User Accounts	<p>The Solution must automatically lock inactive User Accounts after 4 months.</p> <p>Please include information on the following:</p> <ul style="list-style-type: none"> • Will additional User Accounts be required to support the Solution (i.e. service accounts, database accounts)? • Can these be Active Directory accounts or are they local ones? • Would there be any implications for these accounts being subject to a periodic password update policy? 	MUST		



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NFR052	User Administration	The Solution must have the ability for users, roles and permissions to be Maintained.	MUST		
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2.2.8 Training

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR053	Communications	The Supplier should provide a glossary for the Solution to both internal and External Users, consisting of common and consistent terminology.	SHOULD	N/A	
NFR054	Materials	The Supplier must provide detailed end user and technical guides, including standard training material. Please list and describe the materials to be provided.	MUST	N/A	
NFR055	User Training	End user training must be provided to all Internal Users of the Solution. The Bank's preference is for classroom bases training on the Bank's premises. Please provide details of your end user training including the types of training available, plus content and the format of delivery. Please also include information on the specific training	MUST	N/A	



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		<p>you would recommend for the following stages of your proposal:</p> <ul style="list-style-type: none">• Acceptance testing• The training of the business teams in the initial implementation and subsequent releases• Hand-over to the Bank's support teams?• Initially training should be provided to around 50 people consisting of developers, technical support teams, business support teams, testing teams and key business users.			
NFR056	Videos	The Supplier must provide simple and concise online training videos to External Users accompanied by a supporting handbook.	MUST	N/A	



2.2.9 Usability

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR057	Accessibility	<p>The Bank considers the accessibility of its IT solutions important.</p> <p>The Solution must conform to Priority 1 and 2 checkpoints to achieve Level AA compliance as specified in the WCAG2.0 guidelines.</p> <p>Please indicate if you will be willing to have your Solution independently tested by a third party appointed by the Bank.</p>	MUST		
NFR058	Accessibility	<p>The Bank considers the accessibility of its IT solutions important.</p> <p>The Solution should work with assistive screen readers to support Reporting Entities with users that have visual impairments or who are less able to use websites</p>	SHOULD		



		without the use of assistive technologies such as: <ul style="list-style-type: none">• JAWS, NVDA.• Voiceover for OS X.• Window Eyes and Supernova.• ZoomText.• MAGic.			
NFR059	Accessibility	<p>The Bank considers the accessibility of its IT solutions important.</p> <p>The Solution should support users who may not be able to use a mouse and will need to use the Solution exclusively via a keyboard.</p>	SHOULD		
NFR060	Accessibility	<p>The Bank considers the accessibility of its IT solutions important.</p> <p>The Solution should provide access keys for all system functionality available via a web browser.</p>	SHOULD		
NFR061	Browser	The Solution must support the following web browsers	MUST		



	Compatibility – Internal	<p>when used internally:</p> <ul style="list-style-type: none"> • Internet Explorer version 11 upwards. • Google Chrome. 			
NFR062	Browser Compatibility – External	<p>The external facing Solution must support the following web browsers when used externally:</p> <ul style="list-style-type: none"> • Internet Explorer – version 10 and later. • Mozilla Firefox – three latest versions. • Google Chrome – three latest versions. • Safari version – three latest versions. 	MUST		
NFR063	Calendar	<p>It should be possible to set bank holidays, non-working days, etc. that can be used by other system functionality. This should be available in each environment.</p>	SHOULD		
NFR064	Communications	<p>It should be possible for Reporting Entities to access any help and FAQs or other necessary information within 1 – 2 clicks at minimum and be available via the main menus of the Solution. .</p>	SHOULD	N/A	



NFR065	Cookies	<p>If persistent and session cookies may be required for using the Solution, the Solution must display a message requesting consent from the user to allow cookies.</p> <p>In your response please confirm whether your Solution uses cookies and if so, please describe how they are used? Please also detail if a Notification is provided to users requesting permission?</p>	MUST	N/A	
NFR066	Design	<p>The Bank wishes to provide a consistent look and feel across all of its external facing systems and websites. It should be possible for the Bank to update the stylesheets and graphics easily.</p> <p>In your response, please include how the Solution user interfaces can be Configured or designed in line with Bank design standards and guidelines and how style sheets can be updated easily.</p>	SHOULD	N/A	
NFR067	Error Messages	<p>The Solution must display actionable error messages to end users in meaningful and plain English.</p>	MUST	N/A	



NFR068	Error Messages	The Solution must tag error messages to distinguish information, warnings and errors.	MUST	N/A	
NFR069	Language	The Solution's user interface must support British English (en_GB).	MUST		
NFR070	Learnability	The Solution should provide a logical flow through the application. The steps a user should take to complete a task or action, and where they are in that process should be clearly indicated. The Solution's features and functionality should be familiar, consistent and predictable based on existing best practice and methods used in popular web applications or existing applications that the user population uses.	SHOULD	N/A	
NFR071	Responsive Design	<p>The Solution should support different end user devices and screen resolutions, by using responsive design.</p> <p>If your Solution meets this Requirement, please describe what devices, mobile OS and mobile browsers are supported using responsive design.</p>	SHOULD		



NFR072	User Interfaces	The Solution must present all user interfaces via a web browser.	MUST		
NFR073	Web Standards	The Solution should use CSS3 and one of either XHTML 1.1 or HTML 5. A full score will be awarded for confirming the above.	SHOULD		
NFR074	Web Standards	The Solution must pass W3C and CSS Validation checks. Will the web based user interfaces of your Solution pass W3C and CSS checks? If yes, please provide details on how you will test this and what tools you will use.	MUST		
NFR075	Minimum website Resolution	The web user interfaces should support a minimum resolution of 1366 x 768 but use responsive design to work on different devices.	SHOULD		



2.2.10 Usage

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
NFR076	File Upload – Frequency	<p>The Solution must support the collection of files on varying frequencies i.e. on an intra-day, daily, weekly, monthly, quarterly, half yearly and annual basis. This will vary by Data Collection.</p> <p>Please describe how the Solution will deliver this Requirement, providing evidence based examples.</p>	MUST		
NFR077	File Upload – Volume	<p>The Solution must be able to support the collection and Validation of up to 20Gb on a peak day (all files not a single file).</p> <p>N.B. This volume represents data that has not been compressed and may only occur when the Solution has many more services on-board.</p> <p>In your response please provide evidence based</p>	MUST	N/A	



		examples.			
NFR078	Monitoring	The Solution should provide management information on Solution statistics, usage trends and data peaks.	SHOULD	N/A	
NFR079	User Population – External	<p>The Solution should support a user population of at least 10000 users from approximately 2000 Reporting Entities.</p> <p>In your response please include details on the maximum number of users that it can support. Please also include the following information in your response:</p> <ul style="list-style-type: none">• The maximum number of concurrent users the Solution supports and what testing has been carried out to prove this and when.• The factors (e.g. hardware, licensing) on which the number of concurrent users supported depend?• The network architecture, network characteristics and the components required to support the deployment model of your Solution	SHOULD	N/A	



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		<p>including:</p> <ul style="list-style-type: none">○ LAN requirements – Interface(s) data rate, protocols utilised, load.○ WAN requirements – Effects of latency on content delivery, bandwidth requirement.			
NFR080	User Population – Internal	<p>The Solution must support a user population of approximately 1000 Internal Users.</p> <p>In your response please include details on the maximum number of users supported.</p>	MUST	N/A	



2.3 Service Requirements

Reference	Category	Requirement	MoSCoW	Descriptive Response
SR001	Support Model	<p>The Supplier must align with the Bank's support model in order to provide the Maintenance and Support Services detailed in Schedules 2 (in particular sections 4 – 10) and 6 of the Draft Contract.</p> <p>Please describe the key strengths of your ability to align with the Bank's support model in order to provide the Maintenance and Support Services.</p>	MUST	
SR002	Support Hours	<p>With respect to the support model detailed Schedules 2 (particularly sections 4 – 10) and 6 of the Draft Contract, the Supplier must provide support from 0800 to 1800 on UK workdays only but with the ability (on 2 weeks' notice) to call off 24 hour support for one or more UK workdays. These days are known as Peak Days. The Supplier must be able to provide 24 Peak Days support</p>	MUST	



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		<p>per year which is to be priced into the initial option.</p> <p>The Supplier must roll over these Peak Days at the end of the year to the following year or provide a refund should they not be used.</p> <p>The Supplier must provide the ability for the Bank to purchase additional Peak Days should it look like we will exceed the available Peak Days in any one year.</p> <p>At some point the Bank may want to move to 24 X 5 (i.e. workdays & work nights) or 24 x 7 on a continual basis.</p> <p>Please confirm how much notice you will require in order to flex Maintenance and Support Services up to 24 x 5 and up to 24 x 7 on a more permanent basis.</p> <p>Please describe the key strengths of your ability to align with the Bank's support model, specifically in relation to this Support Hours Requirement in order to provide the Maintenance and Support Services.</p>		
SR003	Release	The Supplier must align to the release management	MUST	



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	Management	<p>model detailed in Schedule 2 (particularly sections 7 and 8) and 6 of the Draft Contract.</p> <p>Please describe the key strengths of your ability to align with the Bank's release management model as part of the Maintenance and Support Services.</p> <p>The Supplier must provide at least 24 months' written notice of the termination of support for the version of the software the Bank is using in its production environment.</p> <p>Where relevant, please also ensure that your answer refers to the Bank's Requirements for change control detailed at Schedule 7 of the Draft Contract.</p>		
SR004	Maintenance	<p>The Supplier must maintain the Solution in accordance with the Schedule 2 (particularly sections 4 – 10) and 6.</p> <p>Please describe the key strengths of your ability to maintain the Solution in accordance with Schedule 2 and 6 of the Draft Contract, particularly in respect of</p>	MUST	



		<p>patching, planned outages and the associated change management processes.</p> <p>Where relevant, please also ensure that your answer refers to the Bank's Requirements for change control detailed at Schedule 7 of the Draft Contract.</p>		
SR005	Error & Request Management	<p>The Supplier must manage Errors and Requests in accordance with Schedule 2 (particularly sections 4 – 10) and 6 of the Draft Contract.</p> <p>Please describe the key strengths of your ability to manage Errors and Requests in accordance with Schedule 2 and 6 of the Draft Contract.</p> <p>Where relevant, please also ensure that your answer refers to the Bank's Requirements for change control detailed at Schedule 2, section 7 of the Draft Contract.</p>	MUST	
SR006	Root Cause Analysis	<p>The Supplier must provide root cause analysis in accordance with Schedule 2 (particularly sections 4 – 10) and 6 of the Draft Contract.</p>	MUST	



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		Please describe the key strengths of your ability to carry our root cause analysis and associated problem management processes in accordance with Schedules 2 and 6 of the Draft Contract.		
SR007	Performance Monitoring and Management Information	<p>The Supplier must provide service performance monitoring, management information and reporting in accordance with Schedules 2, 6 (particularly sections 4 and 4) and 8 of the Draft Contract.</p> <p>Please describe the key strengths of your ability to report, performance monitor and provide management information in accordance with Schedules 2 and 6 of the Draft Contract.</p>	MUST	
SR008	Disaster Recovery Procedures	<p>The Supplier must ensure continuity of the Service, through appropriate Supplier disaster recovery and business continuity procedures.</p> <p>Please describe the key strengths of your ability to meet the Bank's Requirements relating to business continuity</p>	MUST	



		<p>and disaster recovery detailed in Schedule 9 of the Draft Contract with particular reference to:</p> <ul style="list-style-type: none">• Invocation.• Communication.• Time to invoke.• Time to recover.		
SR009	Release Content	<p>Please provide details on the scope of what maintenance releases cover and how often they are provided?</p> <p>In your response please provide details on:</p> <ul style="list-style-type: none">• Whether they cover updates to taxonomies and/or XML schemas developed externally to the Bank, following an initial implementation project e.g. EIOPA Solvency II.• Whether they cover updates to taxonomies and/or XML schemas developed internally by the Bank, following an initial implementation project e.g. EIOPA Solvency II.	SHOULD	



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		Please use no more than 200 words.		
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2.4 Migration Requirements

The Bank requires the Supplier to migrate a number of Existing Data Collections held on one system to the Solution. The current system holds data supplied by financial institutions from across banking and insurance, including Solvency II, Credit Unions, Capital + and Buy to Let data (further detail is provided at Appendix E).

The Bank is seeking to understand the Supplier's approach to delivering the proposed migration. All the responses to the questions in this section will be considered and an overall mark for Migration Approach will be awarded based on the responses to MR001-MR006 (rather than an individual score being provided to each individual Requirement).

The Bank views the Supplier's approach and project management as being very important to the successful migration of the existing Data Collections. To that end the Bank would expect to see in the Supplier's responses to the questions in this section, evidence of the intent to use best practice so as to give confidence to the Bank that migration will be a success.

As a guide, the Bank's preference is not to implement the technical migration alongside the implementation of the Solution. The Bank would prefer for the supplier's Solution to have firstly been installed in the Bank, that there had been a period of tested and proven stability in at least a system test environment (but preferably also that Bank internal user acceptance testing had been undertaken). Only then would the Bank wish to implement the technical migration. Although this is the Bank's preference we would be open to a discussion of an alternative strategy that the Supplier believes would be advantageous to the Bank provided it is not at the expense of much higher risk.

The Bank would like to see in the Supplier's migration plans how to make best use of the time before the technical migration of the data onto the new Solution. Beforehand, for example, the Bank working with the Supplier would expect to be involved in preparations for the technical migration, including the extraction of the data from the existing Solution, and ensuring the Bank's technical and business teams are trained up and ready to implement migration.

The Bank would value the Supplier's response, including (but not being limited to), the following:



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- A description of the approach including the advantages to the Bank.
- An outline of the project management method and tools to be used and a statement of why this method is likely to be successful, this should include a visual plan and also an explanation of the key stages, including non- technical steps
- A description of how risks, actions, issues and decisions will be managed
- A description on the management of resources, e.g. skills required, optimum size of team, key players, any key dependencies.
- Management of risks and opportunities, identifying and managing these, particularly in relation to those that could materially affect the Bank's successful migration of the Existing Data Collections.
- Communications and progress reporting between the Supplier and the Bank so as to give confidence to the Bank that the migration is managed in a controlled way with clear deliverables and including the tracking of the progress of these in an easy to view way.
- How the Supplier will manage the above alongside supporting the implementation of their Solution so as to mitigate the risk of contention of resources, environments, and avoid bottlenecks.

In planning for this migration the following assumptions can be made:

- The Bank will provide a development environment in which the Supplier can migrate the data and install their Solution.
- The Bank will have extracted the existing data for the Data Collections and placed it in a holding area for the Supplier to pick up and migrate to the Supplier's databases in a development environment.
- The Supplier will provide full training to the Bank's technical teams involved in the migration to enable them, with initial support from the Supplier to independently migrate the data into the Bank's system testing, UAT and production environments prior to these activities taking place.
- The Supplier will have trained end business users in their Solutions configuration tools so that non-technical business users can create workflows and business rules governing the data.
- The Supplier will provide on-site key project members to work alongside the Bank teams, and that these are sufficiently expert and experienced in the Solution so as not to require major support from teams back at the Supplier's base.
- That the Functional and Non-Functional Requirements for these Data Collections once migrated are as stated within this SOUR.



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- The data that the Bank will have extracted from the existing solution and made available in the holding for the Supplier to migrate are as follows:
 - All financial and non-financial returns in the current system.
 - All financial institution reference data (for example firm name).
 - All user data that is on the system, including external portal users and Bank Internal Users.

The Bank of England's expectations on migration approach and key responsibilities are described in Appendix E "Migration of Existing Data Collections: Information for Suppliers".



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Reference	Requirement	Descriptive Response
MR001	<p>The Supplier must undertake the migration of a number of the Bank's existing regulatory Data Collections to the Supplier's Solution.</p> <p>Provide a high level overview of your proposed approach to delivering the migration into your Solution, including how you would support the Bank in configuring data into the Solution.</p> <p>Full details of the existing systems may be found in "Appendix E Migration of Existing Data Collections: Information for Suppliers".</p> <p>N.B. This Requirement must be itemised within the Pricing Schedule.</p>	
MR002	<p>Please provide an indicative high-level project plan to show how you would deliver the migration of the Bank's Existing Data Collections into your Solution.</p> <p>Please state any assumptions you have made in creating the</p>	



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	<p>plan and identify any key dependencies your plan relies on at key stages (e.g. data mapping).</p> <p>Please use no more than 700 words. Inclusion of table or Gantt chart would be acceptable with commentary.</p> <p>Please note your response to this question should be in line with Section 4(b) of the Pricing Schedule.</p>	
MR003	<p>Please provide details of your resources that would be required to perform the migration into your Solution This should include, but not limited to, the following information:</p> <ul style="list-style-type: none">• The resource types to be used.• The estimated effort ('man days') and milestones including details of roles to be undertaken, by whom, when and where the work will be carried out.• Identify the roles to be undertaken by the Bank.• Assumptions you have made on the involvement of Bank resources at key stages in the project. <p>Please note your response to this question should be in line</p>	



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	<p>with Section 4(b) of the Pricing Schedule.</p> <p>N.B. Co-Location of key Supplier resources with the Bank's own project team at the Bank's premises is a preference. This should include a number of roles, sufficient to give the Bank confidence and assurance for a trouble free migration.</p> <p>Failure to provide co-located resources may lead to the response being given a low score.</p>	
MR004	<p>What do you see as the key risks to achieving a successful migration to your Solution?</p> <p>In your response please ensure you also provide details of the measures you would take to mitigate or prevent these risks from materialising.</p>	
MR005	<p>What are the key documents that will be needed before migration can take place?</p> <p>For each document can you describe the purpose of each and also who will be responsible for producing it.</p>	



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MR006	How will you provide regular assurances to the Bank's Project Manager responsible for this migration that the aims are being met, to time, cost and specification, at each stage right through to production?	
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2.5 General approach

For each question listed in this section please ensure you provide a complete response to the information requested, including each of the points listed in order. Failure to respond to each point will mean your response is scored lower than if the response had provided for each point.

2.5.1 Architecture

Reference	Requirement	MoSCoW	Descriptive Response
GQ001	<p>Please explain how your Solution is deployed in a hybrid model, consisting of an external private cloud and internal on premise environment, with database replication between each environment. In your response please make particular reference to:</p> <ul style="list-style-type: none">• Logical architecture.• Authentication and authorisation.• Resilience and scalability.• Security.• Messaging.• Backup and recovery.	N/A	



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	<ul style="list-style-type: none">• Administration tasks.• Service levels.• Integration options with other systems referred to in this document. <p>Please supply a diagram that shows the logical components of your Solution, what functions these components perform and a typical deployment pattern to demonstrate the high availability options.</p> <p>Where you have made assumptions about components the Bank will provide – such as Authentication and Authorisation Services via Active Directory – please show these as well. The Supplier must ensure that the pricing supports the above configuration.</p> <p>The supplier may provide the response to this Requirement with supplementary diagrams and text in an appendix or separate document.</p>		
GQ002	The Solution will manage many different Data	N/A	



	<p>Collections for different business areas.</p> <p>Some of these Data Collections will not change frequently, where as other Data Collections (e.g. Solvency II and Stress Testing) may change more frequently and may face the same release timelines due to immovable regulatory deadlines. It is expected the solution will have a regular pipeline of new development and business as usual change.</p> <p>Please propose an architecture that can support conflicting release and deployment cycles efficiently; ensures a thoroughly tested high quality deliverable; and retains our ability to respond quickly to change and prevent operational bottlenecks.</p> <p>In your response please:</p> <ul style="list-style-type: none">• Explain your reasons for choosing this approach.• Explain the benefits of this approach, drawing attention to the release and deployment		
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	<p>efficiencies.</p> <ul style="list-style-type: none">• Draw particular attention to the scalability of this approach as more and more Data Collections of increasing granularity are on boarded over time. <p>Please use no more than 500 words.</p>		
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2.5.2 Approach to configuration, customisation and bespoke development

The Bank is seeking to understand how configuration, customisation or bespoke developments are managed by the Supplier and/or Solution.

Reference	Requirement	MoSCoW	Descriptive Response
GQ003	<p>The Supplier should provide details of the technical approach to the management of configuration with particular emphasis on the managing multiple configuration work streams and tools used.</p> <p>The Bank favours the automated configuration tools and the facility to carry out off line configuration.</p>	SHOULD	
GQ004	<p>The Supplier should provide details of how they propose to manage code changes resulting from customisation or bespoke developments. The Bank favours automated development and code stream management.</p>	SHOULD	



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2.6 Implementation approach

2.6.1 Approach and project management

The Bank is seeking to understand the Supplier's approach to delivering the proposed Solution from the responses to the questions in this section. All responses to the questions in this section will be considered and an overall mark for approach and project management will be awarded based on the responses to IMP001 – IMP009 (rather than an individual score being provided to each individual Requirement).

The Bank views the Supplier's approach and project management as being very important to the successful implementation of the Solution. To that end the Bank would expect to see in the responses evidence of the intent to use best practice and recognisable industry standard methodology.

As a guide, the Bank's preference is not to receive the Solution in a series of releases each of which contains a small amount of functionality, as in for example an Agile project approach. If the Solution exists in its entirety then one release is acceptable. It is also acceptable for the Solution to be delivered in phases or tranches that deliver a specific and significant chunk of Requirements that form a coherent set of functionality if it enables the Bank to realise the benefits of this Solution even earlier.

The Bank would value a Supplier's responses, including (but not being limited to) the following:

- A description of the approach including the advantages to the Bank.
- An outline of the project management method and tools to be used and a statement of why this method is likely to be successful, this should include a visual plan and also an explanation of the key stages, including non-technical steps.
- A description of how risks, actions, issues and decisions will be managed.
- A description on the management of resources, e.g. skills required, optimum size of team, key players and any key dependencies.
- Management of risks and opportunities, identifying and managing these, particularly in relation to those that could materially affect the Bank's successful implementation.



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- Communications and progress reporting between the Supplier and the Bank so as to give confidence to the Bank that the implementation is managed in a controlled way with clear deliverables and including the tracking of the progress of these in an easy to view way.

In planning for this implementation the following assumptions can be made:

- The Bank will provide a development environment in which the Supplier can install and test the Solution.
- The Supplier will provide full training to the Bank's technical teams involved in the implementation to enable them, with initial support from the Supplier to independently install the Solution into the Bank's system testing, UAT and production environments prior to these activities taking place.
- The Supplier will provide on-site key project members to work alongside the Bank teams, and that these are sufficiently expert and experienced in the Solution so as not to require major support from teams back at the Supplier's base.

Reference	Requirement	Descriptive Response
IMP001	<p>Please provide a high level overview of your proposed approach and project methodology to delivering the proposed Solution.</p> <p>In your response please:</p> <ul style="list-style-type: none">• Explain your reasons for choosing this approach.• Explain the benefits of this approach vs. others.	



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	<p>Please include details on how you propose to support the Bank during the following delivery stages:</p> <ul style="list-style-type: none">• System and integration testing.• User acceptance testing.• Implementation dress rehearsals.• Live migration and implementation.• Warranty period. <p>Please use no more than 500 words.</p>	
IMP002	<p>Please provide an indicative high-level project plan in order to successfully deliver your Solution.</p> <p>Your plan should include the following information:</p> <ul style="list-style-type: none">• The resource types required.• The estimated effort ('man days') and milestones for the project including details of roles to be undertaken, by whom, when and where the work will be carried out, this should take into account the Bank's Minimum	



	<p>Requirements above.</p> <ul style="list-style-type: none">• Identify the roles undertaken by the Bank, Supplier and third party resources.• What assumptions you have made in creating the plan.• What assumptions you have made about the involvement of Bank resources at key stages in the project. <p>The Bank considers one of the key factors critical to the successful delivery of this project is the co-location of key Supplier resources with the Bank's own project team at the Bank's premises, working alongside each other. As part of the project delivery, the Bank prefers that a number of Supplier roles were working in the Bank's premises with the Bank's own project team:</p> <ul style="list-style-type: none">• Supplier's project/implementation manager Supplier's Solution/technical designer.• Supplier's Business analyst/functional expert Supplier's Trainer for business and technical training during	
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	<p>training.</p> <ul style="list-style-type: none">• Supplier's Testers. <p>For all the roles above and any others the Supplier would wish to include please can you indicate whether they will be full time throughout the project or part time and if the latter what percentage of their time will be in the Bank.</p> <p>Please use no more than 700 words. Inclusion of table or Gantt chart would be acceptable with commentary.</p> <p>Please note your response to this question should be in line with Section 4(a) of the Pricing Schedule.</p>	
IMP003	<p>Please provide details on what you see as the key risks to achieving a successful delivery of the Bank's Requirements and include any mitigation that you would employ to reduce the likelihood of these risks arising.</p> <p>Please use no more than 200 words.</p>	
IMP004	<p>Please provide details on how you will provide regular assurances to the Bank's Project Manager that the Requirements</p>	



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	<p>listed in the SOUR are being met, to time, cost and specification, at each stage of the development/configuration life cycle.</p> <p>Please use no more than 200 words.</p>	
IMP005	<p>Please provide details on how you will manage the delivery of this project in conjunction with your other current or future customer commitments e.g. new projects, significant product launches etc.</p> <p>In your response can you also indicate:</p> <ul style="list-style-type: none">• How you would manage resourcing contentions with other project commitments that may arise in the event of project delays and slippages.• Provide details and explanation for any conflicts of interest that being appointed would create for you. <p>Please use no more than 300 words.</p>	
IMP006	<p>Please confirm whether your (i) development resources are located within the EEA and (ii) whether the Maintenance and Support Services will be provided from within the EEA.</p>	



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	<p>If either will not be located within the EEA then please provide details of the locations and please note that the Bank values low risk, in terms of IT and information security, locations for both development resources and Maintenance and Support Services; particularly high risk locations for either may not be acceptable to the Bank.</p> <p>Please also provide details of the risk mitigations you have in place to manage development and support across multiple sites, if applicable.</p> <p>Please note that, the Bank will not allow remote access into its network or systems or permit data uploaded by end users on to the solution to be held on non-Bank premises.</p> <p>Please use no more than 300 words.</p>	
IMP007	<p>Please provide details your project change management processes.</p> <p>Please use no more than 200 words.</p>	



2.6.2 Testing

The Bank is seeking to understand the Supplier's approach to testing, ensuring quality in the Solution(s) provided to the Bank and how they will work with the Bank during testing phases.

N.B. Specific testing Requirements are detailed in to Schedule 4 of the Draft Contract.

Reference	Requirement	Descriptive Response
IMP008	<p>Please provide details to explain how the testing you will carry out will cover the full set of Requirements before your product is handed over to the Bank for our own testing.</p> <p>In your response please provide details on:</p> <ul style="list-style-type: none">• The test artefacts you will produce for the Bank.• Your internal governance and sign off processes. <p>N.B. The Bank has no preference on what development methodology the Supplier uses in their own environment in order to deliver the Solution, but would like information on what this is.</p>	



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	<p>On completion of the Supplier's testing, as a minimum, the Bank requires the Supplier to provide a test summary report which should include: identifying the testing executed; the results and number of errors found, including any failed tests; and remaining open errors in accordance with the Draft Contract. A summary report should be completed each time there is handover of software to the Bank, be it a release, a software drop or one or more fixes to issues found.</p> <p>Please use no more than 300 words.</p>	
IMP009	<p>The type of the data the Bank collects can be transactional data (which has a simple structure) to supervisory data (which has multi-dimensional and complex structure). As these Data Collections are a public facing service, the accuracy of their implementation is critical.</p> <p>Please provide details on how you ensure the accuracy of the solutions that you implement before they are delivered to the client through the production of either randomised and /or</p>	



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	<p>representative test data.</p> <p>The Bank will produce its own test data as part of its own testing activities to validate the Solution delivered.</p> <p>In your response please also provide details on:</p> <ul style="list-style-type: none">• The capabilities you have for producing test data for XML or XBRL based Data Collections.• What limitations you have around the data that is produced for testing purposes and why.• Under what circumstances you would be reliant on the Bank to provide test data and why. If the Bank were unable to provide you with this data, please explain what you would do to ensure your Solution has undergone satisfactory levels of testing so as to ensure the Solution is of high quality. <p>Please use no more than 300 words.</p>	
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2.7 Licensing Requirements

This section details the Bank's Requirements in respect of the licence to be provided by Suppliers. The Licence Requirements are Technical Minimum Requirements; a failure to provide a licence which meets those Requirements will result in the Supplier being removed from the procurement process. The Suppliers licence costs should be included in section 1 of the Pricing Schedule.

Reference	Requirement	Descriptive Response
LR001	<p>Please confirm the licence provided will allow the Bank to install an unlimited number of instances of the system into an unlimited number of the Bank Environments including but not limited to the following:</p> <ul style="list-style-type: none">• Production• Pre-Production• Internal User Acceptance Testing• External User Acceptance Testing• System Integration Testing• Development• Disaster recovery• Versions of the current production system• Versions of the current production system containing any new changes to the system	



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	<p>And will allow third party software providers to access the System in the Bank's environments in order to perform any testing activities which the Bank chooses.</p>	
LR002	<p>Please confirm that the licence provided will meet the below Requirements:</p> <ul style="list-style-type: none">• Perpetual.• Allow the Bank to collect any regulatory statistical or financial Data Collections across any set of firms or institutions.• Unlimited (i) number of Bank users who can access the Solution; and (ii) number of External Users who can access the Solution to upload data.	



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2.8 Future Requirements

The Requirements in this section are included to assess the Solution's future capability.

These Requirements are in four areas:

- Additional Functional Requirements likely to be required due to system growth.
- Future integration of the Solution into the developing strategic IT landscape of the Bank of England.
- Additional future collections.
- Supplier innovation and product roadmap.



2.8.1 Future Functional Requirements

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
FFR001	Manage Data Collections	<p>The Solution should allow data to be submitted via web service (b2b).</p> <p>e.g. the Bank will be able to support those Reporting Entities/Reporting Groups who wish to integrate their back office systems with the Bank Solution, in order to be able to process Submissions directly without needing to manually access a web based user interface.</p>	SHOULD		
FFR002	Define and Manage Business Validation Checks	<p>The Solution should provide Internal Users with the ability to Configure business rules without requiring a major release system deployment.</p> <p>Deployment should still be subject to appropriate testing through the various environments and workflow.</p>	SHOULD		
FFR003	Process	The Solution should prioritise processing of returns from	SHOULD		



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	Submitted Data	certain Reporting Entities over others based on configurable criteria or rules. e.g. by category, by type of Reporting Entity.			
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2.8.2 Future Non-Functional Requirements

Reference	Category	Requirement	MoSCoW	SRC	Descriptive Response
FNFR001	CRM	<p>The Solution should be able to integrate with a CRM solution (e.g. MS Dynamics).</p> <p>e.g. to provide the ability to retrieve Reporting Entity contact information, provide scheduling information.</p> <p>Will your Solution provide this ability? If so, please provide details on the following:</p> <ul style="list-style-type: none">• The outputs, APIs and/or services available.• How these are managed and monitored.• How integration is achieved.• How data is interchanged (when implemented in the Bank's environment).• The industry standard data schemas that are supported.• Will authentication be required? How will	SHOULD		



		authentication be achieved? Does this happen within the Solution? How do the application and data tiers authenticate?			
FNFR002	Identity, Access and Authentication Management	<p>The Solution should be able to integrate with Active Directory and/or other federated identity management solutions (e.g. SailPoint) and Active Directory.</p> <p>Will your Solution provide this ability? If so, please provide details on the following:</p> <ul style="list-style-type: none">• The outputs, APIs and/or services available.• How these are managed and monitored.• How integration is achieved.• How data is interchanged (when implemented in the Bank's environment).• The industry standard data schemas that are supported.• Will authentication be required? How will authentication be achieved? Does this happen	SHOULD		



		within the Solution? How do the application and data tiers authenticate?			
FNFR003	Master and Reference Data	<p>The Solution should have the ability to interface with master and reference data sources (including but not limited to read/write capability).</p> <p>e.g. for the retrieval of Reporting Entity profile information or code lists.</p> <p>Will your Solution provide this ability? If so, please provide details on the following:</p> <ul style="list-style-type: none">• The outputs, APIs and/or services available.• How these are managed and monitored.• How integration is achieved.• How data is interchanged (when implemented in the Bank's environment).• The industry standard data schemas that are supported.• Will authentication be required? How will	SHOULD		



		authentication be achieved? Does this happen within the Solution? How do the application and data tiers authenticate?			
FNFR004	Middleware	<p>The Solution should have the ability to integrate with a middleware solution that will help integrate the data collection Solution with several back end systems.</p> <p>Will your Solution provide this ability? If so, please provide details on the following:</p> <ul style="list-style-type: none"> • The outputs, APIs and/or services available. • How these are managed and monitored. • How integration is achieved. • How data is interchanged (when implemented in the Bank's environment). • The industry standard data schemas that are supported. • Will authentication be required? How will authentication be achieved? Does this happen 	SHOULD		



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		within the Solution? How do the application and data tiers authenticate?			
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2.8.3 Future Data Collections

As described in the introduction and in the Non-Functional Requirements the Solution should allow the Bank to add a wide variety and quantity of future Data Collections. The anticipated scale and complexity of these Data Collections is detailed in Appendix B. The following Requirements are intended to allow evaluation of the ease of adding additional collections to the Solution. Thus approaches which allow the maximum business configuration and minimum Technical and Supplier involvement are preferred.

Reference	Requirement	Descriptive Response
FDC001	<p>The Bank is seeking to gain an understanding of how certain types of Data Collections are implemented in the proposed Solution, including an indication of tasks, effort, complexity and types of resources.</p> <p>Please describe the process of implementing a new XML based Data Collection using either a proprietary Bank of England schema or one provided by an external body (i.e. ISO).</p> <p>Using the SMMD ISO20022 XML schemas at http://www.bankofengland.co.uk/statistics/Documents/reporters/defs/form_smmd.zip – which are used to collect data for the daily Sterling Money Market collection (SMMD) – as an example,</p>	



	<p>please indicate:</p> <ul style="list-style-type: none">• The steps and resources required to implement this in your Solution to collect the data.• The expected tasks, effort and complexity to implement this Data Collection if Configured by the Bank.• The expected tasks, effort and complexity to implement this Data Collection using professional services.• The process to implement the related Validation Rules.• The effort required to implement the Validation Rules. <p>Please use no more than 300 words.</p>	
FDC002	<p>The Bank is seeking to gain an understanding of how certain types of Data Collections are implemented in the proposed Solution, including an indication of tasks, effort, complexity and types of resources.</p> <p>Please describe the process of implementing a new XBRL based Data Collection using either a proprietary Bank of England taxonomy or one provided by an external body i.e. EBA/EIOPA.</p>	



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	<p>Using the EBA CRDIV v2.4.1.1 Taxonomy and assuming a grass roots implementation please detail:</p> <ul style="list-style-type: none">• The steps and resources required to implement this in your Solution to collect the data.• The expected tasks, effort and complexity to implement this Data Collection if Configured by the Bank.• The expected tasks, effort and complexity to implement this Data Collection using professional services. <p>Please use no more than 300 words.</p>	
FDC003	<p>The Bank is seeking to gain an understanding of how certain types of Data Collections are implemented in the proposed Solution, including an indication of tasks, effort, complexity and types of resources.</p> <p>Please describe the process of implementing a new web form based Data Collection.</p> <p>Using the Credit Union data collection forms at http://www.bankofengland.co.uk/prd/Pages/regulatorydata/for</p>	



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	<p>mscreditunions.aspx as an example, please indicate:</p> <ul style="list-style-type: none">• The steps and resources required to implement this in your Solution to collect the data.• The expected tasks, effort and complexity to implement this Data Collection if Configured by the Bank.• The expected tasks, effort and complexity to implement this Data Collection using professional services <p>Please use no more than 300 words.</p>	
FDC004	<p>The Bank is seeking to gain an understanding of how certain types of Data Collections are implemented in the proposed Solution.</p> <p>With reference to your response in GQ003 please describe how, in a scenario where there are multiple XBRL collections or even XBRL and XML collections to be delivered in the same window i.e. in the same fortnight or less, how you propose to deliver this successfully?</p> <p>In your response please provide an example where you have faced a similar delivery challenge, detailing:</p>	



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	<ul style="list-style-type: none">• What went well• What challenges were faced• How those challenges were overcome by working with the client.• What technical limitations exist with the products that need to be mitigated. <p>Please use no more than 200 words.</p>	
--	--	--



2.8.4 Supplier innovation and product roadmap

The Bank requires the system and its future to be supported by an innovative roadmap which is highly relevant to use within the financial statistical and regulatory data industry. High evaluation scores will be awarded for evidence of this such as evidence of a relevant and deliverable roadmap which involves the evolution of the system in line with anticipated changes in the financial statistical and regulatory data collection industry.

Reference	Requirement	Descriptive Response
IFR001	<p>The Bank requires a roadmap for the system which is highly relevant to existing financial regulations, forthcoming regulatory developments, data standards and evidence of thought leadership.</p> <p>Please provide details and supporting examples on:</p> <ul style="list-style-type: none">• How this influences and is apparent in your solution and solution's roadmap.• How this helps you provide thought leadership and sound advice for your clients and would help you provide this to the Bank in respect of the system.• How your system or its roadmap addresses any	



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	<p>regulations or collections that you are aware that the Bank is planning to or is required (for example under EU Directives) to implement in 2017 – 2019.</p> <ul style="list-style-type: none">• The extent to which your system and its roadmap is informed by the importance of data standardisation and if so, why. <p>Please ensure you have provided a response to each of the points listed here. Failure to respond to each point will mean your response is scored lower than if a response is provided for each point.</p> <p>Please use no more than 400 words.</p>	
IFR002	<p>Please describe in detail, including the benefits of, the key items in your system and its roadmap that have the following two characteristics and the benefits:</p> <ul style="list-style-type: none">• Provides a richer user experience to the Bank's internal and External Users.• Provides technology and / or business efficiency gains.	



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	<p>In your response please also detail how your system's roadmap addresses continuous innovation and how this will ensure that the system, particularly in respect of these two examples but also, more generally, remains cutting edge.</p> <p>Please ensure you have provided a response to each of the points listed here. Failure to respond to each point will mean your response is scored lower than if a response is provided for each point.</p> <p>Please use no more than 400 words.</p>	
IFR003	<p>Please indicate the processes, if any, by which the Bank could expect to influence the future direction of your system and its roadmap</p> <p>Please use no more than 100 words.</p>	



Appendix A Glossary

Term	Definition
Bank Environments	All hardware and associated operating software used by the Bank of England or its external partners to operate the Solution – including externally hosted environments not owned by the Bank.
Configure	To amend an item in the Solution including its relevant features/parameters.
Contract	As defined in the Glossary of the Instructions to Suppliers and Evaluation document
Data Collection	A data set to be collected such as CRDIV, Solvency II, FSA0xx, Statistical and Money Market.
Day 1 Requirements	All Requirements not listed as Future Requirements.
Define	To add an item in the Solution, and set up all relevant features/parameters – such as a Validation Rule, Type of Notification, etc.
Derived Data	Data which has been created from a formula combining of one or more other data. For example, Derived Data may be created using other data taken from a Reporting Entity's Submission or from other data sources. A ratio created from two or more other data is an example of Derived Data.
Disable	To deactivate/lock a User Account.



Term	Definition
Draft Contract	As defined in the Glossary of the Instructions to Suppliers and Evaluation document
Ease of Use	As defined in the Glossary of the Instructions to Suppliers and Evaluation document
Enable	To activate a User Account or reactivate a User Account after being Disabled by the Solution or a user.
Existing Data Collections	The Data Collections to be migrated as detailed in Appendix E
External User	An authorised user for a Reporting Entity or Reporting Group – and not the Bank of England – with appropriate permissions to the use the Solution. The extent of this use will be Configured as defined in the SOUR, with examples provided in Appendix D.
External Super User	An authorised user for a Reporting Entity or Reporting Group – and not the Bank of England – with appropriate permissions to the use the Solution. These users will carry out administrative system tasks as defined in the Requirements but are non-technical, with tasks expected to be carried out without the need for training. The extent of this use will be Configured as defined in the SOUR, with examples provided in Appendix D.
FileSite	FileSite is the Bank's document management system.
Future Requirements	The Requirements set out at paragraph 2.8
Instance	A XBRL file.



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Term	Definition
Internal User	An authorised user from the Bank of England with appropriate permissions to use the Solution. The extent of this use will be as defined in the SOUR, with examples provided in Appendix D.
Internal Team	The business team, with a defined name and groups of members, within which an Internal User operates.
Invalid Data	Data which has 'failed' one or more Validation Rules.
Maintain	To update information within the Solution (similar to Manage, however better defined in the context of keeping information up to date).
Manage	To view, edit, and remove (delete) an item within the Solution.
Minimum Requirements	As defined in the Instructions to Suppliers and Evaluation document issued with the Tender Materials
Nil Return	A firm is expected to report X. However, on a certain occasion they do not need to do so; it is marked as "Nil Return".
Not Reported	This applies to Templates that are intentionally not reported on a regular basis.
Notification	An individual type of notification which could be issued to one or many Reporting Entities e.g. "Please create a schedule". The type of message could be an email, system message (i.e. on screen messaging within a UI) or text message, for example.



Term	Definition
Override	In the context of a Plausibility Outcome, to override means that the Internal User changes the Plausibility Outcome from Red or Amber to Green and provides a reason for changing the outcome. Examples of reasons for changing an outcome may be that the item has been investigated and found to be satisfactory, or the item being checked is insignificant in the context of the overall Submission and therefore does not require investigation.
Peak Days	Means those days designated by the Bank upon service (email being sufficient) to the Supplier of two weeks' notice, limited to 24 days per year. On Peak Days, the supplier will provide the Support and Maintenance Services throughout the Peak Hours.
Peak Hours	Means 24 hours a day on Peak Days.
Plausibility	Describes an initial data analysis process carried out to assess whether data submitted is plausible or implausible, i.e. although the data may be considered Valid Data, they could still contain questionable/unexpected /unusual characteristics which may indicate an error in the data. This process involves a mix of automated analytics with manual data checks to identify and investigate potentially implausible data.
Plausibility Outcome	These outcomes could be: Red; Red and being investigated; Amber; Amber and being investigated; Green; or Green due to an Override. The outcome will be as a result of a Plausibility Rule.
Plausibility Rules	These rules describe the Plausibility checks against which the data submitted will be tested to help ensure that



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Term	Definition
	data is of a sufficient quality.
Pricing Schedule	The pricing schedule issued with the Tender Materials.
Qualitative	Information which deals with apparent qualities (subjective properties).
Quantitative	A type of information based in quantities or else quantifiable data (objective properties).
Regulatory Report	<p>Definition includes narrative information which the Bank requires Reporting Entities to submit at predefined periods. These reports may be structured or unstructured.</p> <p>In addition, as part of normal supervision, Reporting Entities might submit bespoke reports, such as board packs, to supplement supervisory review.</p>
Reporting Entity	Either an individual Reporting Entity required to submit solo regulatory data on its own behalf or a Reporting Group that is required to submit group regulatory data on its own behalf.
Reporting Group	A collection of Reporting Entities which are linked together through a business relationship, where a single business team/function may be responsible for reporting to regulator on behalf of more than one Reporting Entity.



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Term	Definition
Reporting Template (‘Template’)	A defined set of data to be reported to the Bank.
Resubmission	A repeat transfer of a set of data previously sent as a Submission between a Reporting Entity and the Bank. Multiple Resubmissions of the same data set will be possible. The set of data might be a file containing multiple Reporting Templates (e.g. an XBRL file) or a single Reporting Template (e.g. a .XLS file).
Schedule	A list of the Templates within a Data Collection which the Reporting Entity is required to submit. The schedule will highlight which Reporting Templates should be submitted and when. The schedule will highlight the Submission Deadline for each Reporting Template.
Solution	The Data Collection solution proposed by the Supplier to meet the Requirements.
Standards Based Formats	Common and widely used industry standard file formats such as XBRL, XML, CSV, WORD, EXCEL, POWERPOINT, PDF, JPG, PNG, etc.
Structured Data	The data resides within a pre-defined data model and individual data items reside in a fixed field within a record/file. Expected to be received in Standards Based File Formats such as XBRL, XML, .CSV and .XLS.
Submission	The first transfer of a set of data between a Reporting Entity and the Bank. The set of data might be a file containing multiple Reporting Templates (e.g. and XBRL file) or a single Reporting Template (e.g. an .XLS file).



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Term	Definition
Submission Deadline	The date by which a Reporting Template must have been submitted to the Bank, according to rules set out (e.g. under the SII Directive/Bank handbook).
Submission Status	Reflects the current state of the Submission as it is processed within the Solution. For example, “Submitted”, “Validated”, “Awaiting Plausibility”, “Plausibility Checks Complete”, “Accepted”, etc.
Supervisor	A type of Internal User. This term specifically refers to the primary Supervisor of one or more Reporting Entities or the Supervisory Manager who is associated with those Reporting Entities.
Supplier	As defined in the Glossary of the Instructions to Suppliers and Evaluation document
Suppress	To prevent the sending of a Notification.
Technical Minimum Requirements	As defined in the Instructions to Suppliers and Evaluation document issued with the Tender Materials
Tender Materials	As defined in the Glossary of the Instructions to Suppliers and Evaluation document
Third Party Data Sources	Sources of data which sit outside the Solution, i.e. the data are not provided directly as part of Submission by a Reporting Entity. Examples include market data such as asset prices and ratings, exchange rates, existing stored solvency II data.



Term	Definition
Trigger	A system event/action that prompts a Notification to be generated based on rules.
Unstructured Data	The data does not reside within a pre-defined data model. There may be irregularities and ambiguities in the way that different Reporting Entities provide the data making it difficult to systematically analyse. Expected to be received in Standards Based File Formats such as .DOC .PDF or .PPT.
User Account	A unique login and related account details which are associated with either an External User or Internal User.
Valid Data	Data which has 'passed' one or more Validation Rules.
Validation	Data checks to which the data submitted needs to comply with to help ensure that data is of a sufficient quality.
Validation Outcome	Pass or Fail relating to one or more Validation Rules.
Validation Rules	These rules describe the data checks to which the data submitted needs to comply with to help ensure that data is of a sufficient quality.
XBRL Taxonomy	An XBRL Taxonomy is a collection of taxonomy schemas and linkbases. A taxonomy schema is an XML schema document. Linkbases are XML documents which follow the XLink specification. The schema must ultimately extend the XBRL Instance schema document and typically extend other published XBRL schemas on the xbrl.org



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Term	Definition
	website.



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Appendix B Summary of firm profiles and collection types

N.B. The numbers in this section are indicative and are intended to provide some context to who will use the Solution and what it is expected to support.

The Solution is expected to support the following types of firms:

- 700 insurance firms.
- 300 banks.
- 500 credit unions.
- 200 other.

The Solution is anticipated to support the following types of Data Collections in the future, including those migrated from existing systems and new collections:

- 4 high complexity collections.
- 6 medium complexity collections.
- 9 low complexity collections.



Examples of existing collections

Existing System	Complexity	Number of Templates	Number of Firms	Collection Frequency
Solvency II	High	50	450	Quarterly
Capital+	Medium	3	300	Monthly
Credit Unions	Low	2	500	Quarterly

Further information on these collection examples can be found in Appendix E.

N.B. Complexity is a function of data volumes, frequency, number of firms, number of Templates in a collection and dimensionality of data. The Solution may support more collections than stated above over time.



Appendix C Examples of Notifications

The details provided in this appendix are included as examples only to provide further context to the Requirements in section 2.1.10.

Reference	Notification	Detail	Example
1	The differences between the sets of data submitted each year (including Resubmissions).	The Solution should automatically notify Internal Users of differences between the sets of data submitted each year (including Resubmissions).	If Template X was Submitted in year 1, however not Submitted in year 2.
2	The differences between a Reporting Entities Schedule each year.	The Solution should notify Internal Users of differences between a Reporting Entities Schedule each year.	If Template X was scheduled for year 1, however not scheduled for year 2
3	Confirmation of Submission.	The Solution should notify a Reporting Entity/Reporting Group with confirmation that their Submission has been received.	-
4	Validation time.	Provide External Users with a progress indicator when Validation of submitted	“Validation of the data you have submitted will be complete within 24 hours”.



		data will be complete.	
5	Validation checks complete.	The Solution should notify a Reporting Entity/Reporting Group when their Validation checks are complete.	-
6	Resubmission received.	The Solution should notify Internal Users when a Reporting Entity/Reporting Group has resubmitted data	Reporting Entity/Reporting Group X has resubmitted their data for period X.
7	Criteria not met to auto send data to third party.	The Solution should notify Internal Users when data does not meet the criteria defined to automatically send data to a Third Party.	Plausibility Outcome is red so is not sent.
8	Submission is late/overdue	The Solution should notify Internal Users when a scheduled Submission from a Reporting Entity/Reporting Group is late.	48 hours after the date of expected Submission.
9	Reporting Schedule has changed.	The Solution should notify Internal Users when a Reporting Entity/Reporting Group	-



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		changes its Schedule.	
10	Validation failed.	The Solution should notify Internal Users when Validation of a Submission has been unsuccessful.	-
11	Submission Deadline approaching.	The Solution should notify a Reporting Entity/Reporting Group when its Submission Deadline is approaching.	-
12	Data submitted is different to the data within your Schedule.	The Solution should notify Internal Users when their Reporting Entity/Reporting Group submits a different set of data as defined within their Schedule.	-
13	No Report has been submitted.	The Solution should notify Internal Users when a Template is flagged as "Not Reported".	-
14	No Schedule set up.	The Solution should notify Reporting Entities/Reporting Groups who have not	-



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		set up a Schedule	
16	Solution is down.	Provide External Users and Internal Users with a Notification when the Solution is down	-
17	Plausibility Outcomes by a Reporting Entity/Reporting Group.	The Solution should generate Notifications which consolidate the outcome of specific Plausibility checks for a given Reporting Entity/Reporting Group.	If Plausibility checks 2, 3, and 25 flag as a red an automated system generated Notification should advise the Reporting Entity/Reporting Group that a Resubmission is required and the reasons.

Appendix D Examples of system roles

The details provided in this appendix are included as limited examples only to provide further context to the Requirements and to illustrate the need for granular permissions on system features.

	Internal Users	User Account administrator for Internal Users	User Account administrator for External Users	Notification administrator	Rules editor (editor and approver of all rules Validation ,Plausibility, processing rules)	Data viewer	Data processor (e.g. perform Plausibility checking))	Contact handler	Schedule administrator	Schedule viewer	Template/Taxonomy administrator	Template viewer	Firm profile administrator	Firm profile viewer	Report administrator	Report viewer	External Users	Firm User Account administrator	Firm user	Group super user	Group user	Auditor	
Reporting Entity/Reporting Group account management																							
Create External User Account			x															x		x			
Assign role(s) to External user			x																				
View Reporting Entity/Reporting Group User Account			x	x	x													x		x			
Delete Reporting Entity/Reporting Group User Account			x																				
Reset account password			x															x	x	x	x		
Manage Reporting Group Structure			x										x										
Enable and Disable User Accounts			x															x		x			
Roles and permission management																							
Create new roles and permissions		x	x																				
Amend roles and permissions		x	x																				
View roles and permission		x	x																				
Delete roles and permissions		x	x																				
Re-assign user role		x	x																				
Reference and profile data e.g. Supervisor, Team to Reporting Entity association, directive																							
Create new Reporting Entity profile data			x					x					x										
View Reporting Entity profile data		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
Amend Reporting Entity profile data			x										x										
Delete Reporting Entity profile data			x										x										

Maintain user contact details			x					x					x					x	x	x	x		
Maintain Internal Team structures																							
Maintain Group Structure																							
Add Third Party Data Source(s)/Reference Data																							
Scheduling e.g. what data and the Submission Deadline																							
Create Reporting Entity Schedule								x										x		x			
View Reporting Entity Schedule			x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	
Amend Reporting Entity Schedule								x										x		x			
Delete Reporting Entity Schedule								x										x		x			
Extend Reporting deadline																							
Submission																							
Upload, send and cancel file																		x	x	x	x		
Add meta data																		x	x	x	x		
Resubmit data																		x	x	x	x		
Manage rules																							
Create Validation rule(s)				x																			
View Validation rule(s)		x		x	x		x	x															
Amend Validation rule(s) e.g. switch on/off, amend etc.				x																			
Delete Validation rule(s)				x																			
Create new Notification rule(s)				x																			
View existing Notification rule(s)			x	x		x	x																
Amend existing Notification rule(s) e.g. switch on/off, amend etc.				x																			
Delete existing Notification rule(s)				x																			
Create new reporting rule(s)														x									
View existing reporting rule(s)							x							x									
Amend existing reporting rule(s) e.g. switch on/off, amend etc.														x									
Delete existing reporting rule(s)														x									
Create new processing rule(s)				x																			
View existing processing rule(s)				x		x	x																
Amend existing processing rule(s) e.g. storage location				x																			
Delete existing processing				x																			

rule(s)																							
Test rule(s)				x	x				x		x		x		x								
Templates/Taxonomy e.g. data set, frequency, format, version																							
Set up new Template											x												
View existing Template		x		x	x	x	x	x			x	x							x	x	x	x	x
Amend existing Template											x												
Delete existing Template											x												
Operational reports e.g. no of User Accounts per Reporting Entity																							
Set up new standardised report															x								
View existing standardised report		x		x	x	x	x	x								x							
Amend existing standardised report															x								
Delete existing standardised report															x								
Notifications																							
Set up new standard Notification				x																			
View Notification		x		x	x	x	x	x											x	x	x	x	x
Amend Notification				x																			
Delete Notification				x																			
View data																							
View User's within Reporting Group																				x		x	
View Submission data e.g. current, previous, differences etc.						x																	
View Validation Outcome																			x	x	x	x	x
View Submission Status																			x	x	x	x	x
View online guidance		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x	x	x
Audit data																							
View audit records																							



Appendix E Migration of Existing Data Collections: Information for Suppliers

Summary

As part of the project to procure a new data collection Solution, the winning Supplier will be required to migrate to their Solution a number of Existing Data Collections. The Requirements for these collections have already been incorporated within the generic Functional and Non-Functional Requirements as stated in the SOUR.

The purpose of this document is to give sufficient information to Suppliers to help price up the cost of doing that.

Migration to a new service

Migration has a dependency on the new Solution being in place and sufficiently robust, but not necessarily in production. There may be a call by the Bank on the priority of which Data Collections are made live first and the migration of Existing Data Collections may not be the highest priority at the time. This will need to be worked out in partnership with the successful Supplier as part of the overall planning of the data collection implementation to be undertaken as an early activity. The Supplier may assume for planning and costing purposes that the Bank may not wish to start before end December 2017, although this will need to be verified during detailed planning workshops once contracts have been signed.

Suppliers may also assume for planning and pricing purposes a duration of approximately a year to implement the migration from development, configuration through to production.

Migration approach

Although part of the overall data collection implementation, the Bank would want to consider an approach where the migration of Existing Data Collections to the new service is implemented as a work stream in its own right. Therefore we expect that there will need to be discrete project teams from the Bank and the successful Supplier with defined responsibility for delivering the migration.

The data to be migrated are in two parts:

- Data that will need to be extracted and used to populate the Supplier's new Solution.
- Data that will need to be re-built and Configured within the new Solution.



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Data that will need to be migrated

The data to be migrated is from the following collections:

- Solvency II
- Credit Unions
- Capital +
- Buy to Let

(together the Existing Data Collections)

A list of website links to the XBRL taxonomies is provided. This list is current at the time of publication of this procurement and points to publically available published material. The Supplier is expected to keep up to date with locations and information the taxonomies mentioned in this procurement where available.

Technical information	URL
EIOPA Solvency II (all versions)	https://eiopa.europa.eu/regulation-supervision/insurance/reporting-format
UK Banking XBRL Taxonomy (all versions) (Capital+)	http://www.bankofengland.co.uk/prd/Pages/regulatorydata/crdfirmstaxonomy.aspx
Credit Unions	http://www.bankofengland.co.uk/prd/Pages/regulatorydata/formscrdcreditunions.aspx
Buy to let	http://www.bankofengland.co.uk/statistics/Pages/reporters/defs/default.aspx

The data that will need to be extracted is as follows:

- All financial and non-financial returns in the current system.
- All financial institution reference data (for example firm name).
- All user data that is on the system, including external portal users and Bank Internal Users.

In order to facilitate the migration for the Supplier, the Bank, working with our current vendors, will extract this data from the existing system and put it into a holding area or landing zone.

The Supplier will then be responsible for populating their Solution with this data using whatever recognisable industry tools or your own bespoke tools that you wish to use. This should include



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suitable reconciliation reporting to demonstrate that the data has been successfully migrated without loss or amendment.

The Supplier should include in their pricing the work to populate their Solution, up to and including supporting the Bank into cutover to production.

Data that will need to be re-built or Configured in new Solution

In addition to the data outlined above the current system holds the following data:

- Submission forms.
- Process work flows.
- Business Plausibility Rules.

Details of current volumes of each of these are available in the section of this document on current system usage.

The Bank of England staff will re-create the above items using the tools provided in the new Solution as detailed in the Functional Requirements sections above. The Supplier should include 30 days of consultancy support within the migration costs to support this activity.

Migration Costs

The Supplier will need to price up what it will take to achieve the migration:

- Migration of the data to the Solution
- Supporting or undertaking the configuration work as outlined above.

These should include standard project lifecycle costs such as testing, reporting and other activities, to ensure a successful migration.

Current System Usage

Firms and Users

The system hosts some 1400 financial institutions.

There are also approximately 3000 external portal users and some 300 Bank of England users. The actual number varies as financial institutions can add or remove users as their needs change.

Other Qualitative Data

The current database size is less than 100 Gigabytes, but is expected to grow to double that by end December 2017.



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Items created by business end users using built in configuration tools	Quantity
Number of Submission forms	75
Number of process workflows	50
Number of business Plausibility Rules	1000



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Appendix F Integration details

Information to support integration is provided below. The supplier should note the Bank has the technical staff to support them with the design and implementation of any integration.

FileSite (NFR001)

Integration with FileSite is achieved using the WSDL file attached below:



FilesiteWebService.xml

CoreFiling TrueNorth XBRL processor (NFR007)

Integration with the CoreFiling TrueNorth XBRL processor is achieved via a REST based web service call over HTTPS. Specific parameters are passed into the web service call by the Solution and the XBRL processor will return a message back to the calling Solution which can be used to determine what events are triggered next.

EIOPA Metadata File (K.001)

1. XML Metadata Header

1. Namespace

The components of the notification message will be defined in a URI namespace, which must be unique (e.g. [http://eiopa.europa.eu/RDMM/QRDataSubmissionv1.0^{\[4\]}](http://eiopa.europa.eu/RDMM/QRDataSubmissionv1.0[4])). The namespace prefix that is used to qualify the local names of both elements and attributes of the XML document is **eiopas2**.

2. Root Element

Each transmitted XML file consists of a root element named “QRDataSubmission” and one of each of the elements described below.

2. ReportingDataSender

The element contains the information of the sender entity.

XML Tag	Description
Name	The full name of the NCA.



Code	The 5-letter identification code of the NCA. The same identification will be used in the EIOPA Hub ZIP file name.
------	---

3. ReportingDataContext

This element contains the data of the incoming submission. In each submission, there is always only one reporting entity (one undertaking).

1. ReportingEntity

This element contains the information of the undertaking and the relevant submission.

XML Tag	Description
UndertakingID	The identification code of the undertaking
UndertakingIDType	The type of the reported identification code: NationalIdentifier/PreLEI/LEI ^[2]
UndertakingName	The full name of the reported undertaking
ReportingFrequency	The reporting frequency of the submission: Quarterly/Annually
ReportingDataType	The type of the QRT data: Prudential/FS (i.e. Financial Stability)
SubmissionType	For initial submission, value is "Initial". For resubmission, value is "Resubmission".
ReportType	The reporting type of the submission: Solo/Group/3CB (i.e. 3 rd country branch)
Language	The 3-letter reporting language code according to the EUROSTAT language classification (e.g. ENG)
ReferenceDate	The end date of the submission period (e.g. 2015-09-30 for the third quarter of 2015). It is NOT the date that the submission is dispatched.
FileName	The filename of the reported XBRL instance in the submission ZIP file.
ErroneousData	The NCA flagging that denotes that the accompanying XBRL file may contain erroneous data (value="true" for possible errors, elsewhere "false"). NOTE: This metadata element is OPTIONAL.



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Example QRT Metadata File

```
<?xml version="1.0" encoding="UTF-8"?>

<eiopas2:QRTDataSubmission xmlns:eiopas2="http://eiopa.europa.eu/RDMM/QRTDataSubmissionv1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

  <eiopas2:ReportingDataSender>

    <eiopas2:Name>NCA Full Name</eiopas2:Name>

    <eiopas2:Code>NCACode</eiopas2:Code>

  </eiopas2:ReportingDataSender>

  <eiopas2:ReportingDataContext>

    <eiopas2:ReportingEntity>

      <eiopas2:UndertakingID>a LEI ID</eiopas2:UndertakingID>

      <eiopas2:UndertakingIDType>LEI</eiopas2:UndertakingIDType>

      <eiopas2:UndertakingName>Undertaking 1 Full
Name</eiopas2:UndertakingName>

      <eiopas2:ReportingFrequency>Quarterly</eiopas2:ReportingFrequency>

      <eiopas2:ReportingDataType>Prudential</eiopas2:ReportingDataType>

      <eiopas2:SubmissionType>Initial</eiopas2:SubmissionType>

      <eiopas2:ReportType>Solo</eiopas2:ReportType>

      <eiopas2:Language>ENG</eiopas2:Language>

      <eiopas2:ReferenceDate>2015-03-31</eiopas2:ReferenceDate>

      <eiopas2:FileName>Example_filename.xbrl</eiopas2:FileName>

      <eiopas2:ErroneousData>>false</eiopas2:ErroneousData>

    </eiopas2:ReportingEntity>

  </eiopas2:ReportingDataContext>

</eiopas2:QRTDataSubmission>
```

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