

Project DOCUMENTATION

Statement of Requirement

Purchase of a replacement software to provide a Search and Rescue Area Determination and Coverage Planning Capability

HM Coastguard

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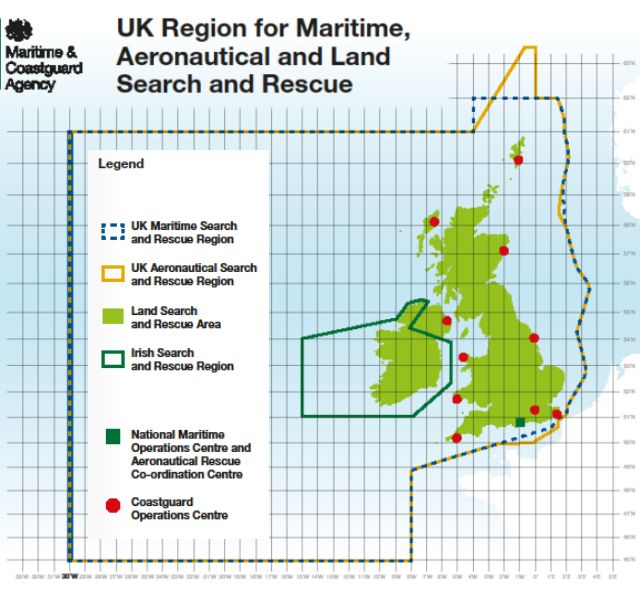
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Date: 03.12.2018

# Introduction

The Maritime and Coastguard Agency (MCA) is an Executive Agency of the Department for Transport. The MCA is responsible throughout the UK the provision of a Search and Rescue services covering the UK Search and Rescue Region. The responsibility for the delivery of inland SAR services is delegated to the Home Office and discharged by the Police. HM Coastguard is responsible or the provision of Aeronautical and Maritime SAR services.



The MCA works to prevent the loss of lives on the coast and at sea, to ensure that ships are safe, and to prevent coastal pollution:

**Safer Lives, Safer Ships, Cleaner Seas**

The MCA provide a full range of search and rescue, counter pollution, survey, inspection and enforcement activities provided through 12 major business activities:

* Survey
* Inspection
* Enforcement
* Ship Registration
* Navigation Services
* Strategic Prevention
* Seafarers Services
* Search & Rescue
* Pollution Response & Salvage
* Stakeholder Communication
* Ministerial Services
* Regulatory Process

These activities are supported by services responsible for providing a range of administrative functions including; infrastructure, MCA people, financial management & administration and corporate management.

Whilst the SARP software will primarily be used for SAR there are other scenarios when this software may be employed such as Vessel Traffic Monitoring where predication of a vessels drift may be required. This could also be compared to actual drift as reported by AIS.

## Background

The UK organisation for civil Maritime and civil Aeronautical search and rescue is derived from the UK Government's adherence to the following international Conventions:

[Convention on the High Seas (1958):](http://legal.un.org/ilc/texts/instruments/english/conventions/8_1_1958_high_seas.pdf)  
[Convention on the Law of the Sea (UNCLOS) (1982):](http://www.un.org/depts/los/convention_agreements/texts/unclos/closindx.htm)  
[Convention on Safety of Life at Sea (SOLAS) (1974):](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/InternationalConvention-for-the-Safety-of-Life-at-Sea-(SOLAS),-1974.aspx)  
[International Convention on Maritime Search and Rescue (1979):](http://www.jus.uio.no/english/services/library/treaties/08/8-03/search-rescue.xml)  
[Convention on International Civil Aviation (Chicago 1944) (Annex 12):](http://www.icao.int/safety/airnavigation/nationalitymarks/annexes_booklet_en.pdf)

An authority responsible for a SAR region has is to provide a suitable response to a Maritime or Aeronautical incident. A key capability is to define an area in which a casualty may be present, and to allocate various sub-areas to particular SAR responders whether dedicated or of opportunity. These functions are known as ‘Search Area Determination (SAD) and Search Area Coverage (SAC).

## Key Requirement Summary

Please note if you cannot meet the Key requirement summary below you may not be considered further for the tender.

1. Provision of suitable software to enable an operator to determine a Search Area SAD and to develop a plan to allocate resources SAC.
2. Provision of standard IAMSAR deterministic and “Monte Carlo” models.
3. Provision of an ability to share and view SAD / SAC models within and outwith the secure HMCG “Blue light” network.
4. Provision of an Environmental data service which should include management of the various sources of data to enable the provision of Hydrographic and Environmental data world wide to the SAR planning software in the secure “Blue Light” network.
5. Provision of an agreed frequency of software upgrades and updates to ensure that HMCG is employing the most UpToDate processes for SAR planning.
6. Provision of full training on the use of the software to an initial cohort. There after training when a software upgrade has been made or within an agreed period of a previous training provision. Nominly 6 months.
7. Provision of Computer assisted training and Computer assisted assessment to ensure maintance of operator competency. An option for recording operator training.
8. Provision of a 5-year service with a 24/7 support contract.
9. Provision of a Concurrent user licence model.

## The Coastguard National Network

HM Coastguard operates within a single National Network environment. The service consists of the National Maritime Operations Centre (NMOC), in Fareham, Hampshire, supported by nine smaller Coastguard Operations Centres (CGOC), distributed around the UK coastline. This network is able to share workload freely between stations, allowing for workload to be flexed to meet Operational demand, ensuring a resilient and flexible service able to meet the challenges of the Modern Coastguard service.

The Coastguard operates in a secure ‘Blue Light’ wide area network, hosted by paired data centres in the NMOC and at CGOC Aberdeen. All core operational functions undertaken by the Coastguard are hosted in this environment and can be run from any of the CGOCs or the NMOC itself.

The NMOC forms the hub of the Coastguards network, hosting an Operations room, the Maritime training capability, one of the Coastguards two data centres and the Aeronautical Rescue Coordination Centre (ARCC).

## Scope

The scope of activities is:

1. To supply and support the delivery of the software to the two data centres and 136 operational PCs and training PCs across the the national network.
2. To provide training support in the use of the software.
3. To provide continued technical and training support.

# How to Respond

You should provide a well-presented, easy to understand proposal, providing relevant and appropriate information demonstrating your understanding of the requirement.

Your tender response should follow the order of the specification document and address all the requirements to provide a clear, logical and well organised presentation of the proposal content.

Where appropriate provide evidence and relevant examples to back up your statements and commitments that you make in the tender.

A number of tables are referred to within the document, these are presented to assist us with evaluation and scoring your proposal. These tables, or an equivalent, should be used within your proposal to summarise your solution and provide an easy reference for us to compare your solution with other tenders.

## Target Dates and Key Milestones

The supplier should propose key milestone activities for the delivery of the work outlined within this Statement of Requirements, as well as suggested target dates for their completion. It is anticipated that there will be three phases for this delivery:

1. Provision and roll out of software to Data Centres and CGOCs as required.
2. Provision of an initial and on-going training provision at the NMOC at Fareham
3. Support for the agreed period

## 2.2. Procurement Timeline

Completed tender proposals should be received no later than 11:00 am (GMT) on **18th January 2019.**

Questions about the Statement of Requirement can be asked at any stage in the tender up until 18:00 (GMT) on **11th January 2019** questions asked will be responded too within three working days. Question and answers will be shared with all prospective suppliers.

# Solution Requirements

Section 3 relates to the individual requirements identified by the MCA in relation to this replacement SAR Plannng (SARP) capability. These outline specific areas in which the MCA are looking for suitably detailed information.

## 3.1. Functional Requirements – (Maritime)

The following table is a list of functional requirements that describe the intended outcome of the solution.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.1.1** | Can accept different format of positions, including:  Decimal Latitude and Longitude  Degree, Minutes and Seconds  Degrees and Minutes  British National Grid – X and Y Axis  OS Grid and NI Grid  Or by Curser position | To be able to input positions in any format which may have been passed from a first informant. | Ma |
| **3.1.2** | To import data from AIS system to provide vessel identiy and passage data for use in a Datum Line model. | This to include Casualty and ID by MMSI number.  The option to import a defined period of a passage as positional data for a Datum Line model. | Hi |
| **3.1.3** | Cut & paste position to / from another application | To provide flexibility for inter-action with other textual software and reduce the potentian for operator induced error. | Hi |
| **3.1.4** | Please describe in detail how you would arrange for Auto fill search instructions into bespoke forms | To create SRU platform specific instructions that can be sent verbally or by data transfer – email. | Hi |
| **3.1.5** | Please describe in detail how your application will be capable of displaying Maritime Charts either Vector and Raster | Display a variety of Maritime charts.  Provision will cover UK SRR immediate coastal area in high resolution, Charting as available for British Over Seas Territories. This will enable HMCG to run a model anywhere UK interests might exist. | Ma |
| **3.1.6** | Please describe in detail how your application will be capable of displaying UK Land Maps Ordnance Survey Great Britain (OSGB): 1:50, 1:25, 1:10 Ordnance Survey Northern Ireland (OSNI) 1:2500 and 1:1250 alongside with Maritine charts. | Display UK OSGB / OSNI maps alongside Maritime charts. To enable shore area models to define both maritime and land resources and make each aware of the other’s SAC. | Ma |
| **3.1.7** | Be capable of displaying Satellite Imagery and / or Street view | To provide situational awareness | Hi |
| **3.1.8** | Aeronautical: VFR & UKLFS charts. | Be able to display aeronautical and land maps alongside. | Hi |
| **3.1.9** | Please describe in detail how your application will be capable of running multiple models a minimum of 5 concurrently using either IAMSAR or Monte Carlo models. | Be able to plan forward phases when additional or replacement SAR units become available.  Be able to see difference in model types and allow selction of that most suited to the scenario.  Preference to have the ability for different model start times | Ma  Hi |
| **3.1.10** | Provision of a timeline that is updated either by manual entry or automatically created with events such as incident start, SRU arrival on scene, SRU termination of search. New SRU adding to search effort. | Provides an ability to see the model / s development including SRUs situation. To identify when significant changes to the SAR plan might occur. | Ma |
| **3.1.11** | All SRUs to automatically be capable of Visual, Visual Aid and Electronic Aid Searches, with the ability for the user to specify day or night | Be able to move from a day or night search with ease.  Be able to select the visual aid or electronic aid without having to adjust inputted data.  Be able to easily compare the impact of considering an aid, allowing the operator to make a balanced decision on POD. | Ma |
| **3.1.12** | System should be capable of using additional tidal data such as MMO estuarial data | In industry standards formats including netCDF. | Hi |
| **3.1.13** | Provision of an Environmental data service providing the following data at Sea / Land / ASL level:  Wind Direction  Wind Speed  Swell Direction  Swell Height  Sea Temperature  Air Temperature  Visibility  Precipitation  Civil daylight times  Civil dusk times  Sea level pressure with trend | UK SRR  ROW (as available)  Some data will be required to run the leeway element of models.  Other data will inform the SAR planners options and provide back ground situational awareness | Ma |
| **3.1.14** | Please describe in detail how your application will be capable of allowing an operator the ability to select EDS sources for display | Operator selection to inform as required. Reduce data overload on the user display. | Ma |
| **3.1.15** | An ability to import on scene environmental data | Be able to receive, import and display data from a Self Locating Datum Marker Bouy (SLDMB) | Ma |
| **3.1.16** | Operator must be able to override EDS data and manually input environmental data | Data from the EDS can be over written to allow for a refinement of a search plan  If more accurate data is received from an on-scene asset. | Ma |
| **3.1.17** | Please describe in detail how your application will be capable of of enabling operators the ability to view model runs across the network | The SMC may not be in the same physical location as the SAR planner. | Ma |
| **3.1.18** | Process should ensure that models viewed across the network have a version number applied as changes are made. | To ensure that all those viewing a SARP are confident that it is the current model. | Ma |
| **3.1.19** | Ability to take a model to a laptop using a licence dongle and share using Microsoft Hub technology | For briefing of Senior MCA staff and relatives who are not in the Blue light secure network. Will normally be linked to a MS Power Point presentation that may be in ppt or pdf | Ma |
| **3.1.20** | Please describe in detail how your application will be able to export to pre-formated documents for briefing of interested parties. As MS Word, Power Point, PDF and text. | Set pre-defined format of presentation such as SAR authority, Contact details and Incident reference number. | Ma |
| **3.1.21** | Please describe in detail how your application will be able to take an AIS feed and to select either by transponder type, description or vessel name which is displayed on the application. | SAR Aircraft use a unique AIS SAR transponder. RNLI AWLB use a ‘SAR’ type of vessel message.  Using sreach vessel track history will support the assessment of the quality of search. | Ma |
| **3.1.22** | Have available a Probability of Survival Decision function integrated | Can be used to inform the SAC plan.  This ability may reference an external programme. | Hi |
| **3.1.23** | System to be able to send a hyperlink and or attachement using email or text message to share a SAR coverage plan with CRTs or other non-MCA responders | This will provide an image to appropriate assets increasing situational awareness. | Ma |
| **3.1.24** | System to be able to export SAD and SAC data in varying prescribed formats via email | To enable a SAR unit before launching or when on service to receive an ‘image’ defining SAD and SAC. The image may also need to be in a proprietorial data formats to enable transmission for example use aboard HMCG SAR Helicopters and RNLI lifeboats. | Hi |
| **3.1.25** | The system should have the function to;  Enable search planners the ability to work on the same plan and merge the models. | Layered search modelling. Or support from elsewhere in the network.  For manual plotting and BCP. | Ma |
| **3.1.26** | Be sent into C2 service – currently Capita ViSION for archiving.  Be sent to a search asset.  Be printed. | Vision is the incident management system  Connect 3.1.1.17 | Hi |
| **3.1.27** | Offers the user the ability to draw on an overlay;  Label with text and symbols.  Box off areas.  Highlight points of interest. | To annotate additional instructions/considerations/rationale.  Enable explanations  Record all inputs for archiving guidelines. | Hi |
| **3.1.28** | The system should factor modelling for when a pilot ejects or the uncertainty of a parachutist landing. | The modelling can also aid with hot air balloons.  Supplements 406MHz detect only alerts or 121.5MHz homing tones. | Hi |
| **3.1.29** | Please describe in detail how your system will manage a Licence model able to accommodate a fixed number of concurrent operational users authorised on servers mirrored across the 2 data centres (Fareham and Aberdeen) | System is to avoid use of dedicated dongles to PCs or group of PCs.  To provide maxium flexibility. | Ma |
| **3.1.30** | Licence model to include an allocation for training. | System to be able to accommodate operational and training use concurrently. | Ma |
| **3.1.31** | Alert user that all licences are in use. | In the event that all licences but the last is in use, when a operator attempts to start the application a warning message is dispayed. ‘Last man standing’ function. | Ma |

## 3.2. Functional Requirements – (Aeronautical)

The following table is a list of additional functions suited to Aeronautical SAR. The MCA wishes to consider potential for SAR planning software to meet ARCC SAR functions;

None of the items below will not be considered for the purposes of contract award but may be included in the final contract.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.2.1** | Aeronautical: VFR & UKLFS charts. | For airspace deconfliction.  Obstacle identification for potential impeded search.  Situational awareness of the on-scene topography. | Lo |
| **3.2.2** | Offers the user the ability to draw on an overlay:  Label with text and symbols.  Box off areas.  Highlight points of interest. | To annotate additional instructions/considerations/rationale.  Enable explanations  Record all inputs for archiving guidelines. | Lo |
| **3.2.3** | Display:  Aeronautical: VFR & UKLFS charts.  Ordnance Survey: 1:50, 1:25, 1:10 | For airspace deconfliction.  Obstacle identification for potential impeded search.  Situational awareness of the on-scene topography. | Lo |
| **3.2.4** | Means to be able factor the distance the aircraft has to transit to/from search area and the subsequent impact of “On scene endurance” or Search endurance. | Better planning for continual aerial presence and refuelling options. | Lo |
| **3.2.5** | Means to calculate, based on the above and type of asset, the total track length to be covered/achieved. | Trigger prompts for single, multiple, Other RW variants or FW capabilities to achieve the search area OR means to edit and amend to fit what asset is to be used. | Lo |
| **3.2.6** | The system should;  Show the search area size on aeronautical charting and determine total track length. | To enable a plot to highlight airspace deconfliction requirements for uninterrupted search.  To make calculations if more than one asset is required to cover the area. | Lo |
| **3.2.7** | The system should; Plot: Last Known Position.  Calculate Error Radius based on aircraft type top speed and known remaining or full fuel endurance. | Enable a more controlled means to plan rather than manual.  A one-stop-shop for all considerations. | Lo |
| **3.2.8** | The system should factor modelling for when a pilot ejects or the uncertainty of a parachutist landing. | The modelling can also aid with hot air balloons.  Supplements 406MHz detect only alerts or 121.5MHz homing tones. | Lo |
| **3.2.9** | High Flyer Position First Heard & Position Last Heard error circles iaw | Calculation based on aircraft height = radius of error circle. | Lo |

## 3.3 Non-Functional Requirements

This section describes the non-functional requirements for delivery approach, technical architecture and operational criteria

## 3.4 Commercial

The following table is a list of requirements that will help us evaluate the commercial aspects of your solution.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.4.1** | **Customer Reference** Please provide a contact name, address, email and telephone number of five customers who may be willing to provide a written reference and evaluation visit if required. | To evaluate past performance, current business relationships, potential products and solutions | Ma |
| **3.4.2** | **Professional Services** Please provide details of your professional service offerings including a breakdown of costs using “Table 4.3.8 – Services Template”. | To evaluate the cost of professional services. | Ma |
| **3.4.3** | **Timescale** Please provide your indicative solution delivery plan clearly showing any key milestones such as sprints, prototypes, activities, durations, parallel work streams, inter-dependencies and personnel deployment. | To evaluate the solution delivery timescale, indicative effort and inter-dependencies. | Ma |
| **3.4.4** | **Costs** Please complete “Table 4.18 – Costs” to provide a cost for the indicated elements, including a total full price for your proposed solution in pounds sterling. | To evaluate the solution delivery cost. | Ma |
| **3.4.5** | **Software Training**  Please describe how your solution will provide full training for MCA operators of the software and how training and training materials including “Computer Assisted Training and Assessment”. | Initial training is to be provided to Training staff and Maritime Operations Specialists (MOS) who will then cascade to all Maritime Operations operators. To ensure ongoing capability the supplier should also provide the MCA the Computer assisted tools to provide future training and assessment. | Ma |
| **3.4.6** | **Separation of Operational and Training models**  Please describe how your solution will include the capability to run in a ‘Training’ mode such that there will be clear separation for Operational and Training models records. | It is essential that is clear delineation between the creation, amendment and retention of models for both training and operational models This must identify the author. | Ma |

## 3.5 Solution Overview

The following table is a list of requirements that will help us to evaluate your general solution approach.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.5.1** | **Supply of Software**  Please describe how you will supply and roll out the core and remote site software. | Provides an understanding of the work required to deliver the capability to the customer. | Ma |
| **3.5.2** | **User Manual** Please provide an electronic copy of the manufacturer published user manual for each logical and physical component. This to be referenced within the high level design. | To evaluate the end user training requirement. | Ma |
| **3.5.3** | **3rd Party Products** Please provide a list of 3rd party hardware and/or software products that are used to underpin your solution including ownership and licensing aspects. This should include any server solutions. | To evaluate the solution technology stack. | Ma |
| **3.5.4** | **Solution Roadmap** Please provide a roadmap clearly showing planned updates and obsolescence over the next 10 years for:  (i) your own products,  (ii) all underpinning 3rd party products,  (iii) all development tools. | To evaluate the solution lifecycle, investment and potential upgrade options. | Ma |
| **3.5.5** | **Scalability** Please explain how the solution will handle a growing amount of work in a capable manner and its ability to be enlarged to accommodate that growth. This should also reflect the licence model proposed | To evaluate the ability to support increased demand for the service maximising existing investment. | Me |
| **3.5.6** | **High Availability** Please explain how your solution will provide a resilient, highly available service using multiple network connections across multiple hosting providers. | To evaluate how the service will operate in a manner that is not interrupted by unforeseen local, physical or wide area network issues | Ma |
| **3.5.7** | **Load Testing** Please explain how you will automate frequent benchmarking of end to end solution performance in a representative production environment from a user’s perspective taking into account common browsers, devices, etc. | To evaluate how performance is to be benchmarked before live operation and to analyse the impact of upgrades to the solution once in operation. | Ma |
| **3.5.8** | **Security Model Overview** Please explain how your solution is  (i) designed and/or,  (ii) deployed and/or;  (iii) managed in a secure manner in compliance with the UK Government Security Policy Framework. | To evaluate the security aspects including but not limited to data confidentiality, integrity, authentication, access, vulnerability management, etc. | Ma |
| **3.5.9** | **Latest Software Versions** Please explain how your solution will use and support the latest versions of 3rd party software available when they change on a regular basis. | To ensure that network security accreditation status is upheld and support with the UK Government Security Policy Framework. | Ma |
| **3.5.10** | **Software Updates** Please explain how your solution will use and support the application of regular server security updates each month and critical patches on request. | To ensure that network security accreditation status is upheld, integrate with the MCA technical environment and support with the [UK Government Security Policy Framework.](https://www.gov.uk/government/publications/security-policy-framework/hmg-security-policy-framework) | Ma |
| **3.5.11** | **AV Signature Updates** Please explain how your solution will use and support the application of anti-virus signature updates every day. | To ensure that network security accreditation status is upheld, integrate with the MCA technical environment and support with the [UK Government Security Policy Framework](https://www.gov.uk/government/publications/security-policy-framework/hmg-security-policy-framework). | Ma |
| **3.5.12** | **Testing Environment** Please explain how you intend to isolate functionality updates, patches, fixes and configuration changes for pre-production validation. | To evaluate test environment capabilities, representation of the production environment and service risks. | Ma |
| **3.5.13** | **Planned Maintenance** Please provide an overview of how your solution will continue to operate during planned maintenance and upgrades within the production environment. | To ensure the service is not interrupted by routine planned maintenance activities. | Ma |
| **3.5.14** | **Hardware Products** Please provide a breakdown of all hardware products within the solution together with unit costs using “Table 4.22 – Hardware Products Template”.  This should include compatibility with HMCG operational PCs (PC2). Details to be provided. | To evaluate hardware technology, integration analysis and value for money. | Hi |
| **3.5.15** | **Software Products** Please provide a breakdown of all software products within the solution together with unit costs and licensing terms using “4.23 – Software Products Template”. | To evaluate software technology, licensing terms and value for money. | Hi |

## Foundation Features

The following table is a list of requirements that will help us to evaluate the foundation design features of your solution.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.6.1** | **APIs** Please provide a list of tools and Application Programming Interfaces (APIs) for your solution and explain how other technology providers can use these to integrate with your solution. | To evaluate how other providers can integrate with the solution. | Me |
| **3.6.2** | **Open Standards** Please explain how your solution supports open standards and common government platforms. | To encourage software and system interoperability. UK Government Open Standards policy can be found [here](https://www.gov.uk/government/publications/open-standards-principles/open-standards-principles). | Me |
| **3.6.3** | **Ad-Hoc Reporting** Please explain how your solution will allow authorised end users to easily construct and run ad-hoc information reports and output the data. | To evaluate the design and technology components which abstract, simplify and manipulate (i.e.: select, filter, sort, group, compute functions, stylise, etc.) data objects, attributes and relationships. | Me |
| **3.6.4** | **Internationalisation** Please explain how your solution will adapt to various languages and regions without engineering changes. | To evaluate how the solution will adapt for a specific region or language by adding locale-specific components, translating text and formatting fields such as dates, numbers and currency. | Lo |

## Delivery Approach

The following table is a list of requirements to help us evaluate your solution delivery approach.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.7.1** | **Analysis Process** Please explain your requirements analysis and stakeholder engagement process. | To evaluate the business engagement and technical requirements analysis methodology. | Ma |
| **3.7.2** | **Design Process** Please explain your solution architectural design process. | To evaluate the high-level design methodology and validation process. | Ma |
| **3.7.3** | **Build Process** Please explain your solution build process. | To evaluate the factory development, coding, testing and solution build methodology. | Ma |
| **3.7.4** | **Deployment Process** Please explain your solution deployment process. | To evaluate the solution implementation methodology including site, integration and user validation processes. | Ma |
| **3.7.5** | **Design Review**  **P**lease explain your design review process including any timing assumptions. | To evaluate the process and dependencies for draft design review. | Me |
| **3.7.6** | **Performance Data Collection** Please explain what tools you will use for collecting performance data and how you will use this data to analyse the success of the solution. | To evaluate how the solution will capture user experience and performance information. | Hi |
| **3.7.7** | **Performance Improvement** Please explain how you will translate performance data into features and tasks for the next phase of development, upgrades and/or continuous service improvement. | To evaluate how performance data will be used. | Hi |

## Integration

The following table is a list of requirements for integration with our technology environment. These are applicable if you are developing software for us (whether hosted by us or others) and/or your solution will integrate with our infrastructure and equipment.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.8.1** | **Architectural Review**  You must present the solution High Level and Low-Level design documents to the MCA Architectural Review Board (ARB) and obtain approval.  This must include details of how the relevant Cloud Security Principles have been implemented. (see <https://www.ncsc.gov.uk/guidance/implementing-cloud-security-principles> ) | To ensure that the solution can integrate within the MCA environment. | Ma |
| **3.8.2** | **Low Level Design** You must provide a low-level design document clearly showing how each high-level product has been integrated into the MCA environment. | To ensure knowledge and information is shared, to ensure that others can rebuild the solution if required and to support with the UK Government Security Policy Framework. | Ma |
| **3.8.3** | **Design Configuration** You must provide a list of configuration items for each product within the low-level design document. | To ensure that specific details such as IP addresses, service accounts, group policy objects, databases installation, configuration options etc. for each product are documented and controlled. | Ma |
| **3.8.4** | **Requests For Change** You must request changes to MCA environments using the “Request For Change” process. (See attached document “MCA ICT Request for Change Workflow”) | To ensure that the impact of changes to the solution can be assessed. | Ma |
| **3.8.5** | **Change Approval Board**  You must present any Requests for Change documents to the MCA Change Advisory Board (CAB) and obtain approval. This is to include any software upgrades. | To ensure that the impact of changes to the solution can be assessed. | Ma |
| **3.8.6** | **Minimum Spec** Please provide minimum operating requirements for any MCA-supplied on-premise hardware and software components that are required to enable the solution. | To evaluate any hardware and software integration dependencies such as servers, databases, client PCs, etc. | Hi |
| **3.8.7** | **Virtual LAN** You must design any MCA on premise components of the solution to operate within the MCA’s VLAN environment. | To ensure network segmentation using a collection of isolated networks and broadcast domains to hinder system attack surfaces. | Hi |
| **3.8.8** | **Service Accounts** The solution should use a least privilege service account principle and integrate with MCA Microsoft Active Directory and Group Policy Objects in compliance with MCA IA guidelines. | To ensure that network security accreditation status is upheld, integrate with the MCA technical environment and support with the UK Government Security Policy Framework. | Hi |
| **3.8.9** | **Internal User Authentication** The solution should authenticate user identity information for MCA staff contained within Microsoft Active Directory services. | To evaluate the authentication technology, integration and experience of single sign-on style access across organizational boundaries for internal staff. | Hi |
| **3.8.10** | **Security Configuration** You must design the solution to operate within a security hardened environment using CIS Benchmarking standards and detail any exceptions within low level design documents for approval. | To ensure that network security accreditation status is upheld by adopting standards published by the Centre for Internet Security (CIS) see [benchmarks.cisecurity.org](https://benchmarks.cisecurity.org/) | Ma |
| **3.8.11** | **Security Clearance** You must ensure that all personnel that require system administrator access to the MCA production environment are first cleared to Security Checked (SC) level. The MCA is not responsible for resolving this activity as a dependency or for the time taken for your personnel to complete the security check process. | Technician administrator access to systems and networks require security checked clearance. | Ma |

## Software Development

The following table is a list of requirements that will help us to evaluate your software development approach.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.9.1** | Please provide the “Road Map” for the product and in outline the processes to influence change | To evaluate the pace and frequency of improvement of the product and the method for engagement such as a user group. | Ma |

## Quality and Governance

The following table is a list of requirements stating the minimum quality and governance controls that we expect you to comply with.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.10.1** | **Acceptance Criteria** You must provide solution acceptance activities using “Table 5.2 – Acceptance Testing Template” or similar.  This must include an NCSC CHECK pen test (Scoped by the MCA) to be performed and remediation work deemed necessary borne at the expense of the supplier and closed off before deploying into production. | To ensure that new or changed solutions are fit for purpose. | Ma |
| **3.10.2** | **Document Control** You must control documentation using “Table 5.1 – Document Control Template” or similar. | To ensure technical and project documentation is of an agreed standard, peer reviewed, version controlled, updated and current. | Me |
| **3.10.3** | **Configuration Items** You must provide and maintain a list of configuration items that enable the build, deployment and/or operation of the solution within 1 working day of our request using “Table 5.3 – Configuration Item Template” or similar. | To ensure configuration control information is of an agreed standard, peer reviewed, and version controlled, updated and current. | Ma |

## Personnel

The following table is a list of requirements stating the minimum quality and governance controls that we expect you to comply with.

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **3.11.1** | **Delivery Manager** Please provide the name of a single point of contact responsible for all aspects of solution delivery. Please use “Table 4.24 – Personnel Template” together with a curriculum vitae or similar. | To ensure that delivery is managed in an effective and efficient manner. | Ma |
| **3.11.2** | **Quality Management** Please provide the name of a single point of contact responsible for all aspects of quality management. Please use “Table 4.24– Personnel Template” together with a curriculum vitae or similar. | To ensure high quality of deliverables, provide a point of issue escalation and resolution. | Ma |
| **3.11.3** | **Project Management** Please provide the name of a single point of contact responsible for all aspects of project management. Please use “Table 4.24 – Personnel Template” together with a curriculum vitae or similar. | To ensure that delivery activities are planned, coordinated and tracked, to document and coordinate the resolution of dependencies, assumptions, issues and risk mitigation plans, to report progress and exceptions. | Ma |
| **3.11.4** | **Requirements Analysis** Please provide the name of a single point of contact responsible for all business and technical requirements analysis activities. Please use “Table 4.24 – Personnel Template” together with a curriculum vitae or similar. | To ensure that key stakeholder and end user requirements are documented, understood and agreed. | Ma |
| **3.11.5** | **Service Acceptance** Please provide the name of a single point of contact responsible for all aspects of service validation and acceptance. Please use “Table 4.24 – Personnel Template” together with a curriculum vitae or similar. | To design and lead factory, site, integration and user acceptance testing obtaining approval to proceed at agreed stages. | Ma |
| **3.11.6** | **Release Management** Please provide the name of a single point of contact responsible for all aspects of release management including implementation control, maintenance and forward planning. Please use “Table 4.24 – Personnel Template” together with a curriculum vitae or similar. | To ensure that changes are collated into logical release packages in order to minimise disruption. | Ma |
| **3.11.7** | **Change Management** Please provide the name of a single point of contact responsible for all aspects of change management including forward planning, impact assessment and implementation. Please use “Table 4.24 – Personnel Template” together with a curriculum vitae or similar. | To ensure that changes to the solution are sponsored at the Change Advisory Board (CAB). | Hi |
| **3.11.8** | **Security Management** Please provide the name of a single point of contact responsible for all aspects of security management. Please use “Table 4.24 – Personnel Template” together with a curriculum vitae or similar. | To ensure that network security accreditation status is upheld, provide product design assurance and support with the UK Government Security Policy Framework. | Hi |
| **3.11.9** | **Contract Manager** Please provide the name of a single point of contact responsible for all aspects of contract management. Please use “Table 4.24 – Personnel Template” together with a curriculum vitae or similar. | To ensure that contract issue can be resolved quickly and efficiently. | Ma |

# 4. Managed Service

This section describes the managed service requirements for the solution including Key Performance Indicators (KPIs).

## 4.1 Requirements

The following table is a list of managed service requirements that will be used to judge the day to day solution management and operation criteria

| **ID** | **Description** | **Rationale** | **Importance** |
| --- | --- | --- | --- |
| **4.1.1** | **Normal Changes** Please explain your process for handling normal changes to your solution during operation. | To evaluate how the solution will deal with changes that are classified as "normal". | Me |
| **4.1.2** | **Emergency Changes** Please explain your process for handling emergency changes to your solution during operation. | To evaluate how the solution will deal with changes that are classified as "urgent". | Me |
| **4.1.3** | **Problem Management Record**  Please explain your process for maintaining a problem management record, reportable at service reviews identifying repeat problems with the service and steps taken to resolve these. | To create visibility of repeat problems, ensure that these are being made visible and are effectively managed | Me |
| **4.1.4** | **Managed Service KPIs** Please provide your proposed Managed Service KPI targets together with an explanation of the difference between your targets and the MCA ideal target. Respond by completing the “Table 4.20 – KPI Response Table” listing each of the indicators shown in section “4.2 – Key Performance Indicators” | To evaluate how solution performance will be measured. | Ma |

## 4.2 Key Performance Indicators

This section contains a list of IT Infrastructure Library (ITIL) based key performance indicators that will be used to measure how well the managed service is performing compared to our strategic goals and objectives. Each KPI entry explains how to measure the indicator together with an ideal target and rationale. Please respond by completing “Table 4.20 Key Performance Indicators” and list each of the indicators shown below

Our intention is to include the final agreed performance targets within a service contract should you be our successful provider.

## 4.3 Incident Management

The following table is a list of Incident Management key performance indicators. The primary intent is to return the IT service to users as quickly as possible.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.3.1** | Number of repeated Incidents | Number of repeated Incidents/months, with known resolution methods | 2 | To ensure that the solution is ideally designed and managed to increase quality and reduce repeat incidents. |
| **4.3.2** | Incidents resolved Remotely | Percentage of Incidents resolved remotely by the Service Desk/month | 95% | To ensure that the solution is ideally designed and managed to resolve incidents remotely without incurring the time and cost of additional visits to affected users. |
| **4.3.3** | Number of Escalations | Number of escalations for Incidents not resolved in the agreed resolution time/year | 1 | To ensure that the solution is ideally designed and managed to increase quality and reduce the number of incidents that breach resolution time. |
| **4.3.4** | Number of Incidents | Number of incidents registered by the Service Desk/month grouped into categories | 5 | To ensure that the solution is ideally designed and managed to increase quality and reduce the number of incidents. |
| **4.3.5** | Average Initial Response Time | Average time taken between the time a user reports an Incident and the time that the Service Desk responds to that Incident | 1 hour | To ensure that the solution is ideally designed and managed to increase quality and reduce incident response time. |
| **4.3.6** | Incident Resolution Time | Average time for resolving an incident grouped into categories | Priority 1 = 4 hours.  Priority 2 =24 hours | To ensure that the solution is ideally designed and managed to increase quality and reduce incidents resolution time. |
| **4.3.7** | First Time Resolution Rate | Percentage of Incidents resolved at the Service Desk during the first call/month grouped into categories | 85% | To ensure that the solution is ideally designed and managed to resolve incidents during the first call. |
| **4.3.8** | Resolution within SLA | Percentage of incidents resolved during resolution times/month agreed within SLA grouped into categories | 95% | To ensure that the solution is ideally designed and managed to resolve incidents within the agreed service level targets. |

## 4.4 Problem Management

The following table is a list of the ITIL based Problem Management key performance indicators. The primary objectives are to prevent problems and resulting incidents from happening, to eliminate recurring incident, and to minimise the impact of incidents that cannot be prevented.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.4.1** | Number of Problems | Number of Problems registered by Problem Management | 10 concurrent | To ensure that the solution is ideally designed and managed to reduce the number of problems. |
| **4.4.2** | Problem Resolution Time | Average time for resolving Problems | Priority 1 = 5 days, Priority 2 = 30 days | To ensure that the solution is ideally designed and managed to reduce problems and subsequent resolution. |
| **4.4.3** | Number of unresolved Problem | Number of Problems where the underlying root cause is not known at a particular time | 2 concurrent | To ensure that the solution is ideally designed and managed to reduce the number of problems. |
| **4.4.4** | Number of Incidents per Known Problem | Number of reported Incidents linked to the same Problem after problem identification | 0 | To ensure that the solution is ideally designed and managed to reduce the number of repeat incidents with the same known error. |
| **4.4.5** | Time until Problem Identification | Average time between first occurrence of an Incident and identification of the underlying root cause | Priority 1 = 2 days, Priority 2 = 7 days | To ensure that the solution is ideally designed and managed to reduce incidents subsequent time taken to identify the root cause. |

## 4.5 Service Level Management

The following table is a list of ITIL based Service Level Management key performance indicators. The primary objectives are to ensure that all services have agreed performance levels to monitor and report. This includes behind the scenes internal Operational Level Agreements (OLAs) and Underpinning Contracts (UCs).

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.5.1** | Services covered by SLAs | Percentage of services covered by SLAs | 100% | To ensure that the solution is ideally designed and managed to cover 100% of service offerings by service level agreements. |
| **4.5.2** | Services covered by OLAs/ UCs | Percentage of service targets backed up by corresponding OLAs/UCs | 100% | To ensure that the solution is ideally designed and managed to support 100% of service level targets with operational level targets and/or underpinning contracts. |
| **4.5.3** | Monitored SLAs | Number of monitored service targets where weak-spots and counter-measures are reported | 2 | To ensure that the solution is ideally designed and managed to reduce the ambiguity of service targets together with the underlying service issues they highlight. |
| **4.5.4** | SLAs under Review | Percentage of service level targets which are regularly reviewed | 100% | To ensure that the solution is ideally designed and managed to perform regular service level target reviews. |
| **4.5.5** | Fulfilment of Service Levels | Percentage of Services/SLAs where the agreed service levels are fulfilled | 100% | To ensure that the solution is ideally designed and managed in order to fulfil the agreed service level targets. |
| **4.5.6** | Number of Service Issues | Number of issues in the service provision/year, which are identified and addressed in an improvement plan | 2 | To ensure that the solution is ideally designed and managed to reduce issues and eliminate subsequent service improvement plans. |

## 4.6 Capacity Management

The following table is a list of ITIL based Capacity Management key performance indicators. The primary objective is to ensure that the capacity of IT services and the IT infrastructures is able to deliver the agreed service level targets in a cost effective and timely manner.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| 4.6.1 | SAR Plan storage | There should be an ability to store / archive SAR model plans for a period of upto to 10 years. | 10 years | Capability for 10 years based on the requirement to have data available for review upto 7 years after an event. Then taking account of any litigation that may commence at a time before 7 years and where the litigation is on going at the 7 year retention point. |

## 4.7 Availability Management

The following table is a list of ITIL based Availability Management key performance indicators. The primary objective is to define, analyse, plan, measure and improve all aspects of the availability of IT services. Availability Management is responsible for ensuring that all IT infrastructure, processes, tools, roles etc. are appropriate for the agreed availability targets.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| 4.7.1 | SAR planning availability | That the SAR software should be available in the Blue Light network 24/7/365. | 24/7/365 | HM Coastguard may be required to develop a SAR search model at any time. The service to enable this must be always available.  Discussions will need to be held as to the provision of EDS data. |

## 4.8 IT Service Continuity Management

The following table is a list of ITIL based Service Continuity Management key performance indicators. The primary objective is to manage risks that could seriously impact the MCA and to support MCA Business Continuity Management.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.8.1** | **SAR Plan DR Service** | That the SAR software should be available in a separate Disaster Recovery environment with connectivity to the EDS. | **Available within 3 hours of invoking BCP** | In the event that the Fareham and Aberdeen data centre is unavailable, HM Coastguard may be required to develop a SAR search model at any time. The DR service to enable this must be available after invoking BCP.  This may be a PC with dongle and connectivity to a EDS. |

## 4.9 Information Security Management

The following table is a list of ITIL based Service Information Security Management key performance indicators. The primary objective is to ensure the confidentiality, integrity and availability of MCA information, data and ICT services.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.9.1** | Number of implemented Preventive Measures | Percentage of preventive security measures which were implemented in response to identified security threats | 100% | To ensure that the solution is ideally designed and managed in order to protect against known vulnerabilities. |
| **4.9.2** | Implementation Duration | Duration from the identification of a security threat to the implementation of a suitable counter measure | 2 days | To ensure that the solution is ideally designed and managed in order to reduce the time to automatically update against known vulnerabilities. |
| **4.9.3** | Number of major Security Incidents | Number of identified security incidents classified by severity category | 1 | To ensure that the solution is ideally designed and managed in order to reduce security incidents. |
| **4.9.4** | Number of Security-related Service Downtimes | Number of security incidents causing service interruption or reduced availability | 0 | To ensure that the solution is ideally designed and managed in order to reduce security incidents and any subsequent service availability interruption. |
| **4.9.5** | Number of Security Tests | Number of security tests and trainings carried out | 1 per security incident/ year/ new service | To ensure that the solution is ideally designed and managed in order to perform security testing and awareness training at least once per security breach / per year / per new service component to be added (i.e. a network penetration test) |
| **4.9.6** | Number of identified Shortcomings during Security Tests | Number of identified shortcomings in security mechanisms which were identified during tests | 1 | To ensure that the solution is ideally designed and managed in order to reduce security shortcomings. |

## 4.10 Vulnerability Management

The following table is a list of Vulnerability Management key performance indicators. The primary objective is to ensure that technical weakness and threats are managed.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.10.1** | Windows Critical Updates | Average time to update all Microsoft Windows products with critical fixes after manufacturer release date. | <1 month | To ensure that critical updates are tested and applied within 1 month. |
| **4.10.2** | Security Information Requests | Average time to acknowledge a service request for information. | <24 hours | To ensure that requests for security information are acknowledged within 24 hours of receipt. |
| **4.10.3** | Security Impact Assessments | Average time to provide a list of technology stack components vulnerable to a given security alert following acknowledgement of a request for this information. | <24 hours | To ensure that requests for security vulnerability impact assessments are provided within 24 hours of request acknowledgement. |
| **4.10.4** | Latest Software Versions | Average time to update 3rd party software to latest available after manufacturer release date. | <3 months | To ensure that 3rd party software updates are tested and applied within 3 months. |
| **4.10.5** | AV Signature Updates | Average time to apply anti-virus signature updates after manufacturer release date. | <24 hours | To ensure that anti-virus signature updates are tested and applied within 24 hours. |
| **4.10.6** | AV Engine Updates | Average time to update the anti-virus engine after manufacturer release date. | <5 days | To ensure that anti-virus signature updates are tested and applied within 5 working days. |

## 4.11 Supplier Management

The following table is a list of ITIL based Supplier Management indicators. The primary objective is to ensure that all contracts with suppliers of the solution support the needs of the MCA, and that all suppliers meet their contractual commitments.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.11.1** | Number of agreed underpinning contracts (UCs) | Percentage of suppliers with agreed UCs | 100% | To ensure that the solution is ideally designed and managed in order to certify supporting suppliers having agreed UCs. |
| **4.11.2** | Number of Contract Reviews | Number of conducted contract and supplier reviews | 4 per year per contract | To ensure that the solution is ideally designed and managed in order to achieve quarterly contract performance reviews with each supplier. |
| **4.11.3** | Number of identified Contract Breaches | Number of contractual obligations which were not fulfilled by suppliers (identified during contract reviews)/year | 1 | To ensure that the solution is ideally designed and managed in order to reduce contractual failure. |

## 4.12 Change Management

The following table is a list of ITIL based Supplier Management key performance indicators. The primary objective is to ensure that standardised methods and procedures are used for efficient and prompt handling of all changes to control IT infrastructure, to minimise the number and impact of any related incidents upon service.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.12.1** | Number of Major Changes | Number of major changes assessed by the CAB (Change Advisory Board)/month | 1 per incident/ security change | To ensure that the solution is ideally designed and managed in order to reduce rate of major changes. |
| **4.12.2** | Number of CAB Meetings | Number of CAB (Change Advisory Board) meetings | 1 per RFC | To ensure that the solution is ideally designed and managed in order to review all requests for change. |
| **4.12.3** | Time for Change Decision | Average time from registering an RFC with Change Management until a decision on the RFC is reached (i.e. until it is either approved or rejected) | 7 days | To ensure that the solution is ideally designed and managed in order to reduce rate of major changes and subsequent decision time. |
| **4.12.4** | Change Rejection Rate | Number of rejected RFCs/year | 2 | To ensure that the solution is ideally designed and managed in order to increase quality and reduce the number of rejected requests for change. |
| **4.12.5** | Number of Emergency Changes | Number of Emergency Changes assessed by the ECAB (Emergency Change Advisory Board)/year | 1 | To ensure that the solution is ideally designed and managed in order to reduce rate of emergency changes. |

## 4.13 Release and Deployment Management

The following table is a list of ITIL based Release and Deployment Management key performance indicators. The primary objective is to ensure that the integrity of the live environment is protected and that the correct components are released.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.13.1** | Number of Releases | Number of releases rolled out into the production environment, grouped into Major and Minor Releases/month | 1 | To ensure that the solution is ideally designed and managed to increase quality and reduce the number of production environment releases. |
| **4.13.2** | Duration of Major Deployments | Average duration of major deployments from clearance until completion | 30 days | To ensure that the solution is ideally designed and managed to reduce production environment release implementation time. |
| **4.13.3** | Number of Release Back outs | Number of releases which had to be reversed | 0 | To ensure that the solution is ideally designed and managed to reduce the number of failed production environment releases. |
| **4.13.4** | Proportion of automatic Release Distribution | Proportion of new releases distributed automatically | 75% | To ensure that the solution is ideally designed and managed to achieve production environment release automation. |

## 4.14 Service Validation and Testing

The following table is a list of ITIL based Service Validation and Testing key performance indicators. The primary objective is to ensure that deployed Releases and the resulting service meet MCA expectations, and to verify that all parties can support the service.

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.14.1** | Percentage of failed Release Component Acceptance Tests | Percentage of release components which fail to pass acceptance tests | 20% | To ensure that the solution is ideally designed and managed to increase quality and eliminate component acceptance test failures. |
| **4.14.2** | Number of identified Errors | Number of identified errors during release testing per release | 1 | To ensure that the solution is ideally designed and managed to eliminate the introduction of previous known errors into new releases. |
| **4.14.3** | Time for Error Fixing | Time until re-submission of fixed release components | 5 days | To ensure that the solution is ideally designed and managed to reduce the fix time to rectify test failures. |
| **4.14.4** | Incidents caused by New Releases | Number of Incidents attributable to new releases | 1 | To ensure that the solution is ideally designed and managed to increase quality and reduce the number of new incidents caused by a release. |
| **4.14.5** | Percentage of failed Service Acceptance Tests | Percentage of Service Acceptance Tests which fail to obtain the customer’s sign-off | 10% | To ensure that the solution is ideally designed and managed to increase quality and eliminate user acceptance test failures. |

## 4.15 Service Reviews

The following table is a list of ITIL based Service Review key performance indicators. The primary objective is to improve service quality where necessary, and to identify more economical ways of providing a service where possible

| **ID** | **KPI Name** | **Measurement** | **Ideal Target** | **Ideal Target Rationale** |
| --- | --- | --- | --- | --- |
| **4.15.1** | Number of Service Reviews | Number of formal Service Reviews carried out during the reporting period | 2 | To ensure that the solution is ideally designed and managed in order to conduct service performance review meetings. |
| **4.15.2** | Number of identified Weaknesses | Percentage of weaknesses which were identified during Service Review, to be addressed by improvement initiatives | 100% | To ensure that the solution is ideally designed and managed in order to |

## 4.16 Response Templates

This section contains the templates that you are required to use when responding. Responses not in the correct format may be scored as non-compliant.

## 4.17 Options and Innovation

Please complete the following table describing each option and/or innovative solution you wish to present. Please complete a separate Price Schedule (4.18) for each option and/or innovative solution.

| **Your Option Number** | **Description of Your Option / Innovation** |
| --- | --- |
|  |  |
|  |  |
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*Add more rows as required*

## 4.18 Price Schedule

Please complete the following table to provide a topline summary of the total cost of your solution

| **Costed Element** | **Total Price (£) Exc. VAT** |
| --- | --- |
| Supply and Installation of SARP System (Including any additional costs)  **OVERALL TOTAL COSTS** |  |
| Managed Service | |
| Support and Maintenance – Year 1 |  |
| Support and Maintenance – Year 2 |  |
| Support and Maintenance – Year 3 |  |
| Support and Maintenance – Year 4 |  |
| Support and Maintenance – Year 5 |  |
| **TOTAL Support Costs** |  |
| Environmental Data Service – Year 1 |  |
| Environmental Data Service – Year 2 |  |
| Environmental Data Service – Year 3 |  |
| Environmental Data Service – Year 4 |  |
| Environmental Data Service – Year 5 |  |
| **TOTAL Environmental Data Service** |  |
| Training – Year 1 |  |
| Training – Year 2 |  |
| Training – Year 3 |  |
| Training – Year 4 |  |
| Training – Year 5 |  |
| **TOTAL Training Costs** |  |
| Other additional costs not included in any above category (please itemise) |  |
| Additional Cost 1 |  |
| Additional Cost 2 |  |
| **TOTAL Additional Cost** |  |

## 4.19 Compliance Statement

Please complete the following table by listing each requirement within this document. A new table is required for each option you wish to present. Explain clearly the rationale for compliance against each requirement. If a requirement is not applicable to your solution, then you must clearly state the reason why it does not apply. Do not use references to another part of your response documentation (such as “see section 1.2.3”) as these may be scored as non-compliant.

| **Your Option Number:** | |  |
| --- | --- | --- |
| Our Requirement ID | Your Percentage Compliance | Description of your Goods and Services to be supplied which justify your stated compliance level |
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*Add more rows as required*

## 4.20 Key Performance Indicators

Please complete the following table by listing each Key Performance Indicator (KPI) within this document. A new table is required for each option you wish to present. Explain clearly your proposed KPI target and describe any differences between our ideal and your proposed target. Do not use references to another part of your response documentation (such as “see section 1.2.3”) as these may be scored as non-compliant.

| **Your Option Number:** | |  |
| --- | --- | --- |
| **Our KPI ID** | **Your Proposed Target** | **Description of your Goods and Services to be supplied with any explanation of any difference between our ideal and your proposed target** |
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*Add more rows as required*

## 4.21 Solution Dependencies

Please provide a list of the dependencies to be resolved by the MCA using the following template in order to ensure that the effort to resolve depend is understood. Do not include assumptions. A new table is required for each option you wish to present.

| **Your Option Number:** | |  |
| --- | --- | --- |
| **Your Dependency ID** | **Your Dependency Description** | **Your Resolution Suggestion** |
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*Add more rows as required*

## 4.22 Hardware Products

Please provide a breakdown of all hardware products within your solution together with unit costs using the following in order to evaluate technology equipment, integration and value for money. A new table is required for each option you wish to present.

| **Your Option Number:** | | |  | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Manufacturer** | **Make** | **Model** | **Product Code** | **Description** | **Unit Cost** | **Quantity** | **Line Cost** | **Specification details where relevant to the product** | | | |
| Memory | Disk | CPU | Network |
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## 4.23 Software Products

Please provide a breakdown of all software products within your solution together with unit costs and licensing terms using the following format in order to evaluate software technology, licensing terms and value for money. A new table is required for each option you wish to present.

| **Your Option Number:** | | |  | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Manufacturer** | **Software Name** | **Version** | **Description** | **License Terms** | **Unit Cost** | **Quantity** | **Line Cost** |
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*Add more rows as required*

## 4.24 Personnel

Please provide a list of all personnel you will be providing together with a copy of their Curriculum Vitae (CV) or similar in order to evaluate the suitability of personnel who are involved in the delivery and support of the solution and support the UK Government Security Policy Framework.

| **Your Option Number:** | | |  | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **First Name** | **Family Name** | **Middle Names** | **Role** | **C.V. Attached?** | **Gender** | **Nationality** | **Security Clearance** | | | | |
| Issuing Authority | Level | Date Obtained | Expiry Date | Reference Number |
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*Add more rows as required*

# 5 Quality Control Templates

This section contains a set of templates that are designed to help you understand the minimum standards required for quality control.

## 5.1 Document Control

You must control documentation using the following template or similar in order to ensure technical and project documentation is of an agreed standard, peer reviewed, version controlled, updated and current.

| **Doc ID** | **Document Name** | **Document Author** | **Document Version** | **Status** |
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## 5.2 Acceptance Testing

You must lead solution acceptance activities using the following template or similar in order to ensure that new or changed solutions are fit for purpose.

| **Product Name** |  |
| --- | --- |

|  | **Name** | **Signature** | **Dated** |
| --- | --- | --- | --- |
| **Created By** |  |  |  |
| **Approved By** |  |  |  |
| **Performed By** |  |  |  |
| **Witnessed By** |  |  |  |
| **Accepted By** |  |  |  |

| **Test ID** | **Test steps to be performed** | **Expected Test Outcome** | **Actual Test Outcome** | **Pass or Fail** | **Observations** |
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## 5.3 Configuration Control

You must control documentation using the following template or similar in order to ensure technical and project documentation is of an agreed standard, peer reviewed, version controlled and updated and current.

| **Item Type** | *Create a new sheet for each agreed item type (e.g. Server, Switch, Firewall, Router, Patch Panel, Rack, Distribution Board, Service Account, User Account, Software Database etc.* | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Item ID** | **Item Name** | **Technical Owner** | **Record Version** | **Attribute 1** | **Attribute 2** | **Attribute 3** | **Attribute 4** | **Attribute 5** | **Attribute …** |
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*Agree the item attributes with MCA and rename the columns then add more rows as required*

# 6. Abbreviations and Acronyms

|  |  |
| --- | --- |
| AIS | Automatic Identification System |
| API | Application Programming Interfaces |
| ARCC | Aeronautical Rescue Co-ordination Centre |
| AWLB | All Weather Lifeboat |
| CAB | Change Advisory Board |
| CGOC | Coastguard Operations Centre |
| CIS | Centre for Internet Security |
| COTS | Commercial Off-The-Shelf |
| CRT | Coastguard Rescue Team |
| ECAB | Emergency Change Advisory Board |
| EDS | Environmental Data Services |
| HMCG | Her Majesty's Coast Guard |
| IA | Information Assurance |
| IAMSAR | The International Aeronautical and Maritime Search and Rescue |
| ICT | Information and Communication Technology |
| IMO | International Maritime Organisation |
| ITIL | Information Technology Infrastructure Library |
| ITIL | IT Infrastructure Library |
| ITT | Invitation to Tender |
| KPI | Key Performance Indicator |
| MCA | Maritime and Coastguard Agency |
| MMO | Maritime Management Organisation |
| MOS | Maritime Operations Specialist |
| NMOC | National Maritime Operations Centre |
| NVG | Night Vision Goggles |
| OC | Underpinning Contracts |
| OLA | Operational Level Agreements |
| OSGB | Ordnance Survey Great Britain |
| OSNI | Ordnance Northern Ireland |
| RNLI | Royal National Lifeboat Institution |
| ROW | Rest of the World |
| SAC | Search Area Coverage |
| SAD | Search Area Determination |
| SARP | Search and Rescue |
| SARP | Search and Rescue Planning |
| SC | Security Checked |
| SLA | Service Level Agreement |
| SMC | Search Mission Co-ordinator |
| SQL | Structured Query Language |
| SRR | Search and Rescue Region |
| SRU | Search and Rescue Units |
| UKLFS | United Kingdom Low Flying Service |
| UN | United Nations |
| VFR | Visual Flight Rules |
| ViSION | The computer system used in all Coastguard Operations centres |
| VLAN | Virtual Local Area Network |

##### Annex A - UK Search and Rescue Region (Map)



##### Annex B – ICT Request for Change Workflow

