Call-Off Schedule 9 (Security)

[Guidance Note: CCS/Buyer to Select whether or when Part A (Short Form Security Requirements) or Part B (Long Form Security Requirements should apply). Part B should be considered where there is a high level of risk to personal or sensitive data.]

Part A: Short Form Security Requirements

1. Definitions
   1. In this Schedule, the following words shall have the following meanings and they shall supplement Joint Schedule 1 (Definitions):

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| "Breach of Security" | 1. the occurrence of:    1. any unauthorised access to or use of the Deliverables, the Sites and/or any Information and Communication Technology ("ICT"), information or data (including the Confidential Information and the Government Data) used by the Buyer and/or the Supplier in connection with this Contract; and/or    2. the loss and/or unauthorised disclosure of any information or data (including the Confidential Information and the Government Data), including any copies of such information or data, used by the Buyer and/or the Supplier in connection with this Contract, 2. in either case as more particularly set out in the Security Policy; |
| "Security Management Plan" | 1. the Supplier's security management plan prepared pursuant to this Schedule, a draft of which has been provided by the Supplier to the Buyer and as updated from time to time; |

1. Complying with security requirements and updates to them
   1. The Buyer and the Supplier recognise that, where specified in Framework Schedule 4 (Framework Management), CCS shall have the right to enforce the Buyer's rights under this Schedule.
   2. The Supplier shall comply with the Security Policy and the requirements in this Schedule including the Security Management Plan and shall ensure that the Security Management Plan produced by the Supplier fully complies with the Security Policy.
   3. The Buyer shall notify the Supplier of any changes or proposed changes to the Security Policy.
   4. If the Supplier believes that a change or proposed change to the Security Policy will have a material and unavoidable cost implication to the provision of the Deliverables it may propose a Variation to the Buyer. In doing so, the Supplier must support its request by providing evidence of the cause of any increased costs and the steps that it has taken to mitigate those costs. Any change to the Charges shall be subject to the Variation Procedure.
   5. Until and/or unless a change to the Charges is agreed by the Buyer pursuant to the Variation Procedure the Supplier shall continue to provide the Deliverables in accordance with its existing obligations.
2. Security Standards
   1. The Supplier acknowledges that the Buyer places great emphasis on the reliability of the performance of the Deliverables, confidentiality, integrity and availability of information and consequently on security.
   2. The Supplier shall be responsible for the effective performance of its security obligations and shall at all times provide a level of security which:
      1. is in accordance with the Law and this Contract;
      2. as a minimum demonstrates Good Industry Practice;
      3. meets any specific security threats of immediate relevance to the Deliverables and/or the Government Data; and
      4. complies with the Security Policy and the ICT Policy.
   3. The references to standards, guidance and policies contained or set out in Paragraph 3.2 shall be deemed to be references to such items as developed and updated and to any successor to or replacement for such standards, guidance and policies, as notified to the Supplier from time to time.
   4. In the event of any inconsistency in the provisions of the above standards, guidance and policies, the Supplier should notify the Buyer's Representative of such inconsistency immediately upon becoming aware of the same, and the Buyer's Representative shall, as soon as practicable, advise the Supplier which provision the Supplier shall be required to comply with.
3. Security Management Plan
   1. Introduction
      1. The Supplier shall develop and maintain a Security Management Plan in accordance with this Schedule. The Supplier shall thereafter comply with its obligations set out in the Security Management Plan.
   2. **Content of the Security Management Plan**
      1. The Security Management Plan shall:
         1. comply with the principles of security set out in Paragraph 3 and any other provisions of this Contract relevant to security;
         2. identify the necessary delegated organisational roles for those responsible for ensuring it is complied with by the Supplier;
         3. detail the process for managing any security risks from Subcontractors and third parties authorised by the Buyer with access to the Deliverables, processes associated with the provision of the Deliverables, the Buyer Premises, the Sites and any ICT, Information and data (including the Buyer’s Confidential Information and the Government Data) and any system that could directly or indirectly have an impact on that Information, data and/or the Deliverables;
         4. be developed to protect all aspects of the Deliverables and all processes associated with the provision of the Deliverables, including the Buyer Premises, the Sites, and any ICT, Information and data (including the Buyer’s Confidential Information and the Government Data) to the extent used by the Buyer or the Supplier in connection with this Contract or in connection with any system that could directly or indirectly have an impact on that Information, data and/or the Deliverables;
         5. set out the security measures to be implemented and maintained by the Supplier in relation to all aspects of the Deliverables and all processes associated with the provision of the Goods and/or Services and shall at all times comply with and specify security measures and procedures which are sufficient to ensure that the Deliverables comply with the provisions of this Contract;
         6. set out the plans for transitioning all security arrangements and responsibilities for the Supplier to meet the full obligations of the security requirements set out in this Contract and the Security Policy; and
         7. be written in plain English in language which is readily comprehensible to the staff of the Supplier and the Buyer engaged in the provision of the Deliverables and shall only reference documents which are in the possession of the Parties or whose location is otherwise specified in this Schedule.
   3. **Development of the Security Management Plan**
      1. Within twenty (20)Working Days after the Start Date and in accordance with Paragraph 4.4, the Supplier shall prepare and deliver to the Buyer for Approval a fully complete and up to date Security Management Plan which will be based on the draft Security Management Plan.
      2. If the Security Management Plan submitted to the Buyer in accordance with Paragraph 4.3.1, or any subsequent revision to it in accordance with Paragraph 4.4, is Approved it will be adopted immediately and will replace the previous version of the Security Management Plan and thereafter operated and maintained in accordance with this Schedule. If the Security Management Plan is not Approved, the Supplier shall amend it within ten (10) Working Days of a notice of non-approval from the Buyer and re-submit to the Buyer for Approval. The Parties will use all reasonable endeavours to ensure that the approval process takes as little time as possible, and in any event, no longer than fifteen (15) Working Days from the date of its first submission to the Buyer. If the Buyer does not approve the Security Management Plan following its resubmission, the matter will be resolved in accordance with the Dispute Resolution Procedure.
      3. The Buyer shall not unreasonably withhold or delay its decision to Approve or not the Security Management Plan pursuant to Paragraph 4.3.2. However a refusal by the Buyer to Approve the Security Management Plan on the grounds that it does not comply with the requirements set out in Paragraph 4.2 shall be deemed to be reasonable.
      4. Approval by the Buyer of the Security Management Plan pursuant to Paragraph 4.3.2 or of any change to the Security Management Plan in accordance with Paragraph 4.4 shall not relieve the Supplier of its obligations under this Schedule.
   4. **Amendment of the Security Management Plan**
      1. The Security Management Plan shall be fully reviewed and updated by the Supplier at least annually to reflect:
         1. emerging changes in Good Industry Practice;
         2. any change or proposed change to the Deliverables and/or associated processes;
         3. any change to the Security Policy;
         4. any new perceived or changed security threats; and
         5. any reasonable change in requirements requested by the Buyer.
      2. The Supplier shall provide the Buyer with the results of such reviews as soon as reasonably practicable after their completion and amendment of the Security Management Plan at no additional cost to the Buyer. The results of the review shall include, without limitation:
         1. suggested improvements to the effectiveness of the Security Management Plan;
         2. updates to the risk assessments; and
         3. suggested improvements in measuring the effectiveness of controls.
      3. Subject to Paragraph 4.4.4, any change or amendment which the Supplier proposes to make to the Security Management Plan (as a result of a review carried out in accordance with Paragraph 4.4.1, a request by the Buyer or otherwise) shall be subject to the Variation Procedure.
      4. The Buyer may, acting reasonably, Approve and require changes or amendments to the Security Management Plan to be implemented on timescales faster than set out in the Variation Procedure but, without prejudice to their effectiveness, all such changes and amendments shall thereafter be subject to the Variation Procedure for the purposes of formalising and documenting the relevant change or amendment.
4. Security breach
   1. Either Party shall notify the other in accordance with the agreed security incident management process (as detailed in the Security Management Plan) upon becoming aware of any Breach of Security or any potential or attempted Breach of Security.
   2. Without prejudice to the security incident management process, upon becoming aware of any of the circumstances referred to in Paragraph 5.1, the Supplier shall:
      1. immediately take all reasonable steps (which shall include any action or changes reasonably required by the Buyer) necessary to:
         1. minimise the extent of actual or potential harm caused by any Breach of Security;
         2. remedy such Breach of Security to the extent possible and protect the integrity of the Buyer and the provision of the Goods and/or Services to the extent within its control against any such Breach of Security or attempted Breach of Security;
         3. prevent an equivalent breach in the future exploiting the same cause failure; and
         4. as soon as reasonably practicable provide to the Buyer, where the Buyer so requests, full details (using the reporting mechanism defined by the Security Management Plan) of the Breach of Security or attempted Breach of Security, including a cause analysis where required by the Buyer.
   3. In the event that any action is taken in response to a Breach of Security or potential or attempted Breach of Security that demonstrates non-compliance of the Security Management Plan with the Security policy or the requirements of this Schedule, then any required change to the Security Management Plan shall be at no cost to the Buyer.

Part B: Long Form Security Requirements

1. Definitions
   1. In this Schedule the following words shall have the following meanings and they shall supplement Joint Schedule 1 (Definitions):

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| "Breach of Security" | 1. means the occurrence of:    1. any unauthorised access to or use of the Goods and/or Deliverables, the Sites and/or any Information and Communication Technology ("ICT"), information or data (including the Confidential Information and the Government Data) used by the Buyer and/or the Supplier in connection with this Contract; and/or    2. the loss and/or unauthorised disclosure of any information or data (including the Confidential Information and the Government Data), including any copies of such information or data, used by the Buyer and/or the Supplier in connection with this Contract, 2. in either case as more particularly set out in the security requirements in the Security Policy; |
| "ISMS" | 1. the information security management system and process developed by the Supplier in accordance with Paragraph 3 (ISMS) as updated from time to time in accordance with this Schedule; and |
| "Security Tests" | 1. tests to validate the ISMS and security of all relevant processes, systems, incident response plans, patches to vulnerabilities and mitigations to Breaches of Security. |

1. Security Requirements
   1. The Buyer and the Supplier recognise that, where specified in Framework Schedule 4 (Framework Management), CCS shall have the right to enforce the Buyer's rights under this Schedule.
   2. The Parties acknowledge that the purpose of the ISMS and Security Management Plan are to ensure a good organisational approach to security under which the specific requirements of this Contract will be met.
   3. The Parties shall each appoint a security representative to be responsible for Security. The initial security representatives of the Parties are:
      1. **[insert** security representative of the Buyer]
      2. [**insert** security representative of the Supplier]
   4. The Buyer shall clearly articulate its high level security requirements so that the Supplier can ensure that the ISMS, security related activities and any mitigations are driven by these fundamental needs.
   5. Both Parties shall provide a reasonable level of access to any members of their staff for the purposes of designing, implementing and managing security.
   6. The Supplier shall use as a minimum Good Industry Practice in the day to day operation of any system holding, transferring or processing Government Data and any system that could directly or indirectly have an impact on that information, and shall ensure that Government Data remains under the effective control of the Supplier at all times.
   7. The Supplier shall ensure the up-to-date maintenance of a security policy relating to the operation of its own organisation and systems and on request shall supply this document as soon as practicable to the Buyer.
   8. The Buyer and the Supplier acknowledge that information security risks are shared between the Parties and that a compromise of either the Supplier or the Buyer’s security provisions represents an unacceptable risk to the Buyer requiring immediate communication and co-operation between the Parties.
2. Information Security Management System (ISMS)
   1. The Supplier shall develop and submit to the Buyer for the Buyer’s Approval, within twenty (20) Working Days after the Start Date, an information security management system for the purposes of this Contract and shall comply with the requirements of Paragraphs 3.3 to 3.5.
   2. The Supplier acknowledges that the Buyer places great emphasis on the reliability of the performance of the Deliverables, confidentiality, integrity and availability of information and consequently on the security provided by the ISMS and that the Supplier shall be responsible for the effective performance of the ISMS.
   3. The ISMS shall:
      1. unless otherwise specified by the Buyer in writing, be developed to protect all aspects of the Deliverables and all processes associated with the provision of the Deliverables, including the Buyer Premises, the Sites, the Supplier System, the Buyer System (to the extent that it is under the control of the Supplier) and any ICT, information and data (including the Buyer’s Confidential Information and the Government Data) to the extent used by the Buyer or the Supplier in connection with this Contract;
      2. meet the relevant standards in ISO/IEC 27001 and ISO/IEC27002 in accordance with Paragraph 7;
      3. at all times provide a level of security which:
         1. is in accordance with the Law and this Contract;
         2. complies with the Baseline Security Requirements;
         3. as a minimum demonstrates Good Industry Practice;
         4. complies with the Security Policy and the ICT Policy;
         5. complies with at least the minimum set of security measures and standards as determined by the Security Policy Framework (Tiers 1-4) (<https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/255910/HMG_Security_Policy_Framework_V11.0.pdf>);
         6. takes account of guidance issued by the Centre for Protection of National Infrastructure <https://www.cpni.gov.uk/>
         7. complies with HMG Information Assurance Maturity Model and Assurance Framework (<http://www.cesg.gov.uk/publications/Documents/iamm-assessment-framework.pdf>);
         8. meets any specific security threats of immediate relevance to the ISMS, the Deliverables and/or Government Data;
         9. addresses issues of incompatibility with the Supplier’s own organisational security policies; and
         10. complies with ISO/IEC27001 and ISO/IEC27002 in accordance with Paragraph 7;
      4. document the security incident management processes and incident response plans;
      5. document the vulnerability management policy including processes for identification of system vulnerabilities and assessment of the potential impact on the Deliverables of any new threat, vulnerability or exploitation technique of which the Supplier becomes aware, prioritisation of security patches, testing of security patches, application of security patches, a process for Buyer approvals of exceptions, and the reporting and audit mechanism detailing the efficacy of the patching policy; and
      6. be certified by (or by a person with the direct delegated authority of) a Supplier’s main board representative, being the "Chief Security Officer", "Chief Information Officer", "Chief Technical Officer" or "Chief Financial Officer" (or equivalent as agreed in writing by the Buyer in advance of issue of the relevant Security Management Plan).
   4. Subject to Paragraph 2 the references to Standards, guidance and policies contained or set out in Paragraph 3.3 shall be deemed to be references to such items as developed and updated and to any successor to or replacement for such standards, guidance and policies, as notified to the Supplier from time to time.
   5. In the event that the Supplier becomes aware of any inconsistency in the provisions of the standards, guidance and policies set out in Paragraph 3.3, the Supplier shall immediately notify the Buyer Representative of such inconsistency and the Buyer Representative shall, as soon as practicable, notify the Supplier as to which provision the Supplier shall comply with.
   6. If the ISMS submitted to the Buyer pursuant to Paragraph 3.1 is Approved by the Buyer, it shall be adopted by the Supplier immediately and thereafter operated and maintained in accordance with this Schedule. If the ISMS is not Approved by the Buyer, the Supplier shall amend it within ten (10) Working Days of a notice of non-approval from the Buyer and re-submit it to the Buyer for Approval. The Parties shall use all reasonable endeavours to ensure that the Approval process takes as little time as possible, and in any event, no longer than fifteen (15) Working Days from the date of the first submission of the ISMS to the Buyer. If the Buyer does not Approve the ISMS following its resubmission, the matter shall be resolved in accordance with the Dispute Resolution Procedure. No Approval to be given by the Buyer pursuant to this Paragraph 3 may be unreasonably withheld or delayed. However any failure to approve the ISMS on the grounds that it does not comply with any of the requirements set out in Paragraphs 3.3 to 3.5 shall be deemed to be reasonable.
   7. Approval by the Buyer of the ISMS pursuant to Paragraph 3.6 or of any change to the ISMS shall not relieve the Supplier of its obligations under this Schedule.
3. Security Management Plan
   1. Within twenty (20) Working Days after the Start Date, the Supplier shall prepare and submit to the Buyer for Approval in accordance with Paragraph 4 fully developed, complete and up-to-date Security Management Plan which shall comply with the requirements of Paragraph 4.2.
   2. The Security Management Plan shall:
      1. be based on the initial Security Management Plan set out in Annex 2 (Security Management Plan);
      2. comply with the Baseline Security Requirements and Security Policy;
      3. identify the necessary delegated organisational roles defined for those responsible for ensuring this Schedule is complied with by the Supplier;
      4. detail the process for managing any security risks from Subcontractors and third parties authorised by the Buyer with access to the Goods and/or Services, processes associated with the delivery of the Goods and/or Services, the Buyer Premises, the Sites, the Supplier System, the Buyer System (to the extent that it is under the control of the Supplier) and any ICT, Information and data (including the Buyer’s Confidential Information and the Government Data) and any system that could directly or indirectly have an impact on that information, data and/or the Deliverables;
      5. unless otherwise specified by the Buyer in writing, be developed to protect all aspects of the Deliverables and all processes associated with the delivery of the Deliverables, including the Buyer Premises, the Sites, the Supplier System, the Buyer System (to the extent that it is under the control of the Supplier) and any ICT, Information and data (including the Buyer’s Confidential Information and the Government Data) to the extent used by the Buyer or the Supplier in connection with this Contract or in connection with any system that could directly or indirectly have an impact on that Information, data and/or the Deliverables;
      6. set out the security measures to be implemented and maintained by the Supplier in relation to all aspects of the Deliverables and all processes associated with the delivery of the Deliverables and at all times comply with and specify security measures and procedures which are sufficient to ensure that the Deliverables comply with the provisions of this Schedule (including the requirements set out in Paragraph 3.3);
      7. demonstrate that the Supplier’s approach to delivery of the Deliverables has minimised the Buyer and Supplier effort required to comply with this Schedule through consideration of available, appropriate and practicable pan-government accredited services (for example, ‘platform as a service’ offering from the G-Cloud catalogue);
      8. set out the plans for transitioning all security arrangements and responsibilities from those in place at the Start Date to those incorporated in the ISMS within the timeframe agreed between the Parties;
      9. set out the scope of the Buyer System that is under the control of the Supplier;
      10. be structured in accordance with ISO/IEC27001 and ISO/IEC27002, cross-referencing if necessary to other Schedules which cover specific areas included within those standards; and
      11. be written in plain English in language which is readily comprehensible to the staff of the Supplier and the Buyer engaged in the Deliverables and shall reference only documents which are in the possession of the Parties or whose location is otherwise specified in this Schedule.
   3. If the Security Management Plan submitted to the Buyer pursuant to Paragraph 4.1 is Approved by the Buyer, it shall be adopted by the Supplier immediately and thereafter operated and maintained in accordance with this Schedule. If the Security Management Plan is not approved by the Buyer, the Supplier shall amend it within ten (10) Working Days of a notice of non-approval from the Buyer and re-submit it to the Buyer for Approval. The Parties shall use all reasonable endeavours to ensure that the Approval process takes as little time as possible, and in any event, no longer than fifteen (15) Working Days from the date of the first submission to the Buyer of the Security Management Plan. If the Buyer does not Approve the Security Management Plan following its resubmission, the matter shall be resolved in accordance with the Dispute Resolution Procedure. No Approval to be given by the Buyer pursuant to this Paragraph may be unreasonably withheld or delayed. However any failure to approve the Security Management Plan on the grounds that it does not comply with the requirements set out in Paragraph 4.2 shall be deemed to be reasonable.
   4. Approval by the Buyer of the Security Management Plan pursuant to Paragraph 4.3 or of any change or amendment to the Security Management Plan shall not relieve the Supplier of its obligations under this Schedule.
4. Amendment of the ISMS and Security Management Plan
   1. The ISMS and Security Management Plan shall be fully reviewed and updated by the Supplier and at least annually to reflect:
      1. emerging changes in Good Industry Practice;
      2. any change or proposed change to the Supplier System, the Deliverables and/or associated processes;
      3. any new perceived or changed security threats;
      4. any changes to the Security Policy;
      5. any new perceived or changed security threats; and
      6. any reasonable change in requirement requested by the Buyer.
   2. The Supplier shall provide the Buyer with the results of such reviews as soon as reasonably practicable after their completion and amend the ISMS and Security Management Plan at no additional cost to the Buyer. The results of the review shall include, without limitation:
      1. suggested improvements to the effectiveness of the ISMS;
      2. updates to the risk assessments;
      3. proposed modifications to the procedures and controls that affect information security to respond to events that may impact on the ISMS; and
      4. suggested improvements in measuring the effectiveness of controls.
   3. Subject to Paragraph 5.4, any change which the Supplier proposes to make to the ISMS or Security Management Plan (as a result of a review carried out pursuant to Paragraph 5.1, a Buyer request, a change to Annex 1 (Security) or otherwise, shall be subject to the Variation Procedure and shall not be implemented until Approved in writing by the Buyer.
   4. The Buyer may, acting reasonably, Approve and require changes or amendments to the ISMS or Security Management Plan to be implemented on timescales faster than set out in the Variation Procedure but, without prejudice to their effectiveness, all such changes and amendments shall thereafter be subject to the Variation Procedure for the purposes of formalising and documenting the relevant change or amendment.
5. Security Testing
   1. The Supplier shall conduct Security Tests from time to time (and at least annually across the scope of the ISMS) and additionally after any change or amendment to the ISMS (including security incident management processes and incident response plans) or the Security Management Plan. Security Tests shall be designed and implemented by the Supplier so as to minimise the impact on the delivery of the Deliverables and the date, timing, content and conduct of such Security Tests shall be agreed in advance with the Buyer. Subject to compliance by the Supplier with the foregoing requirements, if any Security Tests adversely affect the Supplier’s ability to deliver the Deliverables so as to meet the KPIs, the Supplier shall be granted relief against any resultant under-performance for the period of the Security Tests.
   2. The Buyer shall be entitled to send a representative to witness the conduct of the Security Tests. The Supplier shall provide the Buyer with the results of such Security Tests (in a form approved by the Buyer in advance) as soon as practicable after completion of each Security Test.
   3. Without prejudice to any other right of audit or access granted to the Buyer pursuant to this Contract, the Buyer and/or its authorised representatives shall be entitled, at any time upon giving reasonable notice to the Supplier, to carry out such tests (including penetration tests) as it may deem necessary in relation to the ISMS and the Supplier's compliance with the ISMS and the Security Management Plan. The Buyer may notify the Supplier of the results of such tests after completion of each such test. If any such Buyer’s test adversely affects the Supplier’s ability to deliver the Deliverables so as to meet the KPIs, the Supplier shall be granted relief against any resultant under-performance for the period of the Buyer’s test.
   4. Where any Security Test carried out pursuant to Paragraphs 6.2 or 6.3 reveals any actual or potential Breach of Security or weaknesses (including un-patched vulnerabilities, poor configuration and/or incorrect system management), the Supplier shall promptly notify the Buyer of any changes to the ISMS and to the Security Management Plan (and the implementation thereof) which the Supplier proposes to make in order to correct such failure or weakness. Subject to the Buyer's prior written Approval, the Supplier shall implement such changes to the ISMS and the Security Management Plan and repeat the relevant Security Tests in accordance with the timetable agreed with the Buyer or, otherwise, as soon as reasonably possible. For the avoidance of doubt, where the change to the ISMS or Security Management Plan is to address a non-compliance with the Security Policy or security requirements (as set out in Annex 1 (Baseline Security Requirements) to this Schedule) or the requirements of this Schedule, the change to the ISMS or Security Management Plan shall be at no cost to the Buyer.
   5. If any repeat Security Test carried out pursuant to Paragraph 6.4 reveals an actual or potential Breach of Security exploiting the same root cause failure, such circumstance shall constitute a material Default of this Contract.
6. Complying with the ISMS
   1. The Buyer shall be entitled to carry out such security audits as it may reasonably deem necessary in order to ensure that the ISMS maintains compliance with the principles and practices of ISO 27001 and/or the Security Policy.
   2. If, on the basis of evidence provided by such security audits, it is the Buyer's reasonable opinion that compliance with the principles and practices of ISO/IEC 27001 and/or the Security Policy are not being achieved by the Supplier, then the Buyer shall notify the Supplier of the same and give the Supplier a reasonable time (having regard to the extent and criticality of any non-compliance and any other relevant circumstances) to implement and remedy. If the Supplier does not become compliant within the required time then the Buyer shall have the right to obtain an independent audit against these standards in whole or in part.
   3. If, as a result of any such independent audit as described in Paragraph the Supplier is found to be non-compliant with the principles and practices of ISO/IEC 27001 and/or the Security Policy then the Supplier shall, at its own expense, undertake those actions required in order to achieve the necessary compliance and shall reimburse in full the costs incurred by the Buyer in obtaining such audit.
7. Security Breach
   1. Either Party shall notify the other in accordance with the agreed security incident management process as defined by the ISMS upon becoming aware of any breach of security or any potential or attempted Breach of Security.
   2. Without prejudice to the security incident management process, upon becoming aware of any of the circumstances referred to in Paragraph 8.1, the Supplier shall:
      1. immediately take all reasonable steps (which shall include any action or changes reasonably required by the Buyer) necessary to:
         1. minimise the extent of actual or potential harm caused by any Breach of Security;
         2. remedy such Breach of Security or any potential or attempted Breach of Security in order to protect the integrity of the Buyer Property and/or Buyer Assets and/or ISMS to the extent that this is within the Supplier’s control;
         3. apply a tested mitigation against any such Breach of Security or attempted Breach of Security and provided that reasonable testing has been undertaken by the Supplier, if the mitigation adversely affects the Supplier’s ability to provide the Deliverables so as to meet the relevant KPI Performance Measures, the Supplier shall be granted relief against any resultant under-performance for such period as the Buyer, acting reasonably, may specify by written notice to the Supplier;
         4. prevent a further Breach of Security or any potential or attempted Breach of Security in the future exploiting the same root cause failure; and
         5. supply any requested data to the Buyer (or the Computer Emergency Response Team for UK Government ("GovCertUK")) on the Buyer’s request within two (2) Working Days and without charge (where such requests are reasonably related to a possible incident or compromise); and
         6. as soon as reasonably practicable provide to the Buyer full details (using the reporting mechanism defined by the ISMS) of the Breach of Security or attempted Breach of Security, including a root cause analysis where required by the Buyer.
   3. In the event that any action is taken in response to a Breach of Security or potential or attempted Breach of Security that demonstrates non-compliance of the ISMS with the Security Policy or the requirements of this Schedule, then any required change to the ISMS shall be at no cost to the Buyer.
8. Vulnerabilities and fixing them
   1. The Buyer and the Supplier acknowledge that from time to time vulnerabilities in the ICT Environment will be discovered which unless mitigated will present an unacceptable risk to the Buyer’s information.
   2. The severity of threat vulnerabilities for Supplier COTS Software and Third Party COTS Software shall be categorised by the Supplier as ‘Critical’, ‘Important’ and ‘Other’ by aligning these categories to the vulnerability scoring according to the agreed method in the ISMS and using the appropriate vulnerability scoring systems including:
      1. the ‘National Vulnerability Database’ ‘Vulnerability Severity Ratings’: ‘High’, ‘Medium’ and ‘Low’ respectively (these in turn are aligned to CVSS scores as set out by NIST http://nvd.nist.gov/cvss.cfm); and
      2. Microsoft’s ‘Security Bulletin Severity Rating System’ ratings ‘Critical’, ‘Important’, and the two remaining levels (‘Moderate’ and ‘Low’) respectively.
   3. The Supplier shall procure the application of security patches to vulnerabilities within a maximum period from the public release of such patches with those vulnerabilities categorised as ‘Critical’ within 14 days of release, ‘Important’ within 30 days of release and all ‘Other’ within 60 Working Days of release, except where:
      1. the Supplier can demonstrate that a vulnerability is not exploitable within the context of any Service (e.g. because it resides in a software component which is not running in the service) provided vulnerabilities which the Supplier asserts cannot be exploited within the context of a Service must be remedied by the Supplier within the above timescales if the vulnerability becomes exploitable within the context of the Service;
      2. the application of a ‘Critical’ or ‘Important’ security patch adversely affects the Supplier’s ability to deliver the Services in which case the Supplier shall be granted an extension to such timescales of 5 days, provided the Supplier had followed and continues to follow the security patch test plan agreed with the Buyer; or
      3. the Buyer agrees a different maximum period after a case-by-case consultation with the Supplier under the processes defined in the ISMS.
   4. The Specification and Mobilisation Plan (if applicable) shall include provisions for major version upgrades of all Supplier COTS Software and Third Party COTS Software to be upgraded within 6 Months of the release of the latest version, such that it is no more than one major version level below the latest release (normally codified as running software no older than the ‘n-1 version’) throughout the Term unless:
      1. where upgrading such Supplier COTS Software and Third Party COTS Software reduces the level of mitigations for known threats, vulnerabilities or exploitation techniques, provided always that such upgrade is made within 12 Months of release of the latest version; or
      2. is agreed with the Buyer in writing.
   5. The Supplier shall:
      1. implement a mechanism for receiving, analysing and acting upon threat information supplied by GovCertUK, or any other competent Central Government Body;
      2. ensure that the ICT Environment (to the extent that the ICT Environment is within the control of the Supplier) is monitored to facilitate the detection of anomalous behaviour that would be indicative of system compromise;
      3. ensure it is knowledgeable about the latest trends in threat, vulnerability and exploitation that are relevant to the ICT Environment by actively monitoring the threat landscape during the Contract Period;
      4. pro-actively scan the ICT Environment (to the extent that the ICT Environment is within the control of the Supplier) for vulnerable components and address discovered vulnerabilities through the processes described in the ISMS as developed under Paragraph 3.3.5;
      5. from the date specified in the Security Management Plan provide a report to the Buyer within five (5) Working Days of the end of each Month detailing both patched and outstanding vulnerabilities in the ICT Environment (to the extent that the ICT Environment is within the control of the Supplier) and any elapsed time between the public release date of patches and either time of application or for outstanding vulnerabilities the time of issue of such report;
      6. propose interim mitigation measures to vulnerabilities in the ICT Environment known to be exploitable where a security patch is not immediately available;
      7. remove or disable any extraneous interfaces, services or capabilities that are not needed for the provision of the Services (in order to reduce the attack surface of the ICT Environment); and
      8. inform the Buyer when it becomes aware of any new threat, vulnerability or exploitation technique that has the potential to affect the security of the ICT Environment and provide initial indications of possible mitigations.
   6. If the Supplier is unlikely to be able to mitigate the vulnerability within the timescales under this Paragraph 9, the Supplier shall immediately notify the Buyer.
   7. A failure to comply with Paragraph 9.3 shall constitute a Notifiable Default, and the Supplier shall comply with the Rectification Plan Process.

Part B – Annex 1:

Baseline security requirements

1. Handling Classified information
   1. The Supplier shall not handle Buyer information classified SECRET or TOP SECRET except if there is a specific requirement and in this case prior to receipt of such information the Supplier shall seek additional specific guidance from the Buyer.
2. End user devices
   1. When Government Data resides on a mobile, removable or physically uncontrolled device it must be stored encrypted using a product or system component which has been formally assured through a recognised certification process of the UK Government Communications Electronics Security Group ("CESG") to at least Foundation Grade, for example, under the CESG Commercial Product Assurance scheme ("CPA").
   2. Devices used to access or manage Government Data and services must be under the management authority of Buyer or Supplier and have a minimum set of security policy configuration enforced. These devices must be placed into a ‘known good’ state prior to being provisioned into the management authority of the Buyer. Unless otherwise agreed with the Buyer in writing, all Supplier devices are expected to meet the set of security requirements set out in the CESG End User Devices Platform Security Guidance (<https://www.ncsc.gov.uk/guidance/end-user-device-security)>. Where the guidance highlights shortcomings in a particular platform the Supplier may wish to use, then these should be discussed with the Buyer and a joint decision shall be taken on whether the residual risks are acceptable. Where the Supplier wishes to deviate from the CESG guidance, then this should be agreed in writing on a case by case basis with the Buyer.
3. Data Processing, Storage, Management and Destruction
   1. The Supplier and Buyer recognise the need for the Buyer’s information to be safeguarded under the UK Data Protection regime or a similar regime. To that end, the Supplier must be able to state to the Buyer the physical locations in which data may be stored, processed and managed from, and what legal and regulatory frameworks Government Data will be subject to at all times.
   2. The Supplier shall agree any change in location of data storage, processing and administration with the Buyer in accordance with Clause 14 (Data protection).
   3. The Supplier shall:
      1. provide the Buyer with all Government Data on demand in an agreed open format;
      2. have documented processes to guarantee availability of Government Data in the event of the Supplier ceasing to trade;
      3. securely destroy all media that has held Government Data at the end of life of that media in line with Good Industry Practice; and
      4. securely erase any or all Government Data held by the Supplier when requested to do so by the Buyer.
4. Ensuring secure communications
   1. The Buyer requires that any Government Data transmitted over any public network (including the Internet, mobile networks or un-protected enterprise network) or to a mobile device must be encrypted using a product or system component which has been formally assured through a certification process recognised by CESG, to at least Foundation Grade, for example, under CPA or through the use of pan-government accredited encrypted networking services via the Public Sector Network ("PSN") framework (which makes use of Foundation Grade certified products).
   2. The Buyer requires that the configuration and use of all networking equipment to provide the Services, including those that are located in secure physical locations, are at least compliant with Good Industry Practice.
5. Security by design
   1. The Supplier shall apply the ‘principle of least privilege’ (the practice of limiting systems, processes and user access to the minimum possible level) to the design and configuration of IT systems which will process or store Government Data.
   2. When designing and configuring the ICT Environment (to the extent that the ICT Environment is within the control of the Supplier) the Supplier shall follow Good Industry Practice and seek guidance from recognised security professionals with the appropriate skills and/or a CESG Certified Professional certification (<https://www.ncsc.gov.uk/content/files/protected_files/article_files/Guidance_to_CESG_Cerification_for_Cyber_Security_IA_Professionals_-_issue_2.2_-_Oct_16%20-%20version.pdf>) for all bespoke or complex components of the ICT Environment (to the extent that the ICT Environment is within the control of the Supplier).
6. Security of Supplier Staff
   1. Supplier Staff shall be subject to pre-employment checks that include, as a minimum: identity, unspent criminal convictions and right to work.
   2. The Supplier shall agree on a case by case basis Supplier Staff roles which require specific government clearances (such as ‘SC’) including system administrators with privileged access to IT systems which store or process Government Data.
   3. The Supplier shall prevent Supplier Staff who are unable to obtain the required security clearances from accessing systems which store, process, or are used to manage Government Data except where agreed with the Buyer in writing.
   4. All Supplier Staff that have the ability to access Government Data or systems holding Government Data shall undergo regular training on secure information management principles. Unless otherwise agreed with the Buyer in writing, this training must be undertaken annually.
   5. Where the Supplier or Subcontractors grants increased ICT privileges or access rights to Supplier Staff, those Supplier Staff shall be granted only those permissions necessary for them to carry out their duties. When staff no longer need elevated privileges or leave the organisation, their access rights shall be revoked within one (1) Working Day.
7. Restricting and monitoring access
   1. The Supplier shall operate an access control regime to ensure all users and administrators of the ICT Environment (to the extent that the ICT Environment is within the control of the Supplier) are uniquely identified and authenticated when accessing or administering the Services. Applying the ‘principle of least privilege’, users and administrators shall be allowed access only to those parts of the ICT Environment that they require. The Supplier shall retain an audit record of accesses.
8. Audit
   1. The Supplier shall collect audit records which relate to security events in the systems or that would support the analysis of potential and actual compromises. In order to facilitate effective monitoring and forensic readiness such Supplier audit records should (as a minimum) include:
      1. Logs to facilitate the identification of the specific asset which makes every outbound request external to the ICT Environment (to the extent that the ICT Environment is within the control of the Supplier). To the extent the design of the Deliverables allows such logs shall include those from DHCP servers, HTTP/HTTPS proxy servers, firewalls and routers.
      2. Security events generated in the ICT Environment (to the extent that the ICT Environment is within the control of the Supplier) and shall include: privileged account logon and logoff events, the start and termination of remote access sessions, security alerts from desktops and server operating systems and security alerts from third party security software.
   2. The Supplier and the Buyer shall work together to establish any additional audit and monitoring requirements for the ICT Environment.
   3. The Supplier shall retain audit records collected in compliance with this Paragraph 8 for a period of at least 6 Months.

Part B – Annex 2 – Security Management Plan

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