**Schedule 2**

Statement of Requirements

PURPOSE

# This Statement of Requirement (SOR) provides requirements and work to be undertaken by a Battlefield Management Application (BMA) Supplier for the Design, Development, Integration, Assurance and Acceptance of a BMA during the MORPHEUS Evolve to Open (EvO) Design and Development project phase.

REQUIREMENT SET

# This SOR provides the potential BMA Supplier with statements pertaining to the elements that need to be provided in order to deliver a BMA. It also makes reference to requirements. The Requirement Set for the BMA is comprised of several artefacts and are passed to you as separate documents:

* Epics
* User Stories
* Non-Functional Requirements (NFRs)

# Along with the above Requirement Set we provide a series of technical products:

* GD BMA Technical Specification
* Systems Engineering Management Strategy (SEMS)
* MORPHEUS Architecture Requirements Specification
* EvO System Design Description – Application Hosting Design

# The three latter technical publications have been provided by our Transition Partner for your due consideration. For the purposes of understanding the full system your product will integrate with, we suggest you pay due regard of the MORPHEUS System Requirements Document (SRD) as your product cannot preclude any of the requirements in its design.

VISION

A Battle Management Application that transforms the way we conduct Command and Control across the digitised battlefield. A game changer in fighting for Information Superiority that provides the commander at all levels with a suite of continually evolving tools that enables him to plan, decide and execute with speed, precision and confidence.

Ways of working

# The Authority is seeking to undertake a collaborative development approach to the BMA solution. This will involve an open and collaborative interaction with the User, the MORPHEUS Coordinating Design Organisation and General Dynamics UK Ltd (the Transition Partner (TP)). In doing so the Contractor shall work with the Authority and its Evolve to Open (EvO) Transition Partner (TP) to ensure that the BMA complies with the Authority’s Architecture Principles for MORPHEUS and the MORPHEUS Target System Architecture (MTSA), and that integrates with the EvO System to deliver the BMA Requirements.

# This shall involve the following activities:

* Attendance to either, Abbey wood, Army Headquarters, JFIG Locations (Huntingdon, Feltham), REDACTED (Bristol) or the Oakdale site for meetings, planning and integration events.
* Attendance to meetings and planning events as deemed relevant by the Authority.
* Provide subject matter expertise and feedback to the Authority and TP regarding matters involving the BMA
* Influence the development of the TIF interfaces
* maintain its plan of delivery in accordance with the Transition Partner’s SAFe V4 cadence and synchronisation, allowing for both agile and waterfall approaches to development

# Facilitate knowledge transfer (when possible) regarding the solution to the Army Information Application Services branch of AHQ

# **SPIRIT OF AGILE**

# The Authority have requested various documentation to facilitate the solution both today and in the future. The Authority agree with the values of the Agile Manifesto notably “working software over comprehensive documentation” you are therefore expected to provide documentation to satisfy the minimum requirements for the specific document as detailed later in this SOR.

SCOPE

# The BMA is a suite of one or more software applications and services providing Geospatial Services, Operating Picture, Mission Planning and Execution for commanders at all levels. Users may be located in fixed or deployed headquarters, mobile platforms (vehicles) or dismounted (on the soldier). Computing platforms will vary from well performing PCs through laptops to tablets and smaller mobile devices. Network infrastructure will include high and very low bandwidth (wired and wireless) bearers utilising HF, VHF and UHF bands. The BMA shall be developed to take full, but appropriate, advantage of the services provided by the Evolve to Open (EvO) Tactical Integration Framework (TIF) to optimise operation over the network and to make use of common core services. Additionally, the BMA will provide a subset of the common core services as part of the TIF for use by other client applications.

# The solution will be a scalable and lean suite of applications/services accessed via an intuitive front end interface that is developed in collaboration with the user and integrator. A capability that provides improved battle-winning potential within the jurisdictions of a more effective and efficient Mission Planning and Execution tool, a superior Geospatial provision aiding a clearer Operational and Situational Awareness Picture. A suite accessible from large to small digital devices from static to deployed HQs through mobile platforms down to the dismounted soldier. A solution that both supplies and consumes enterprise services and is extensible through open APIs and SDKs.

# **Geospatial Services**. These services comprise Digital Mapping, Display and Analysis; and Route Planning and Route Following.

## **Digital Mapping**. The processes of importing Foundation Geospatial Intelligence (GEOINT) into MORPHEUS (from where, in what formats etc.), of distributing and accessing it once within the system.

## **Display**. The rendering and visual display of GEOINT includes the ways a user can manipulate their display (pan, tilt, zoom etc.) as well as the various units, projections and coordinate systems in which the GEOINT may be displayed.

## **Analysis**. User-initiated analyses of the GEOINT, including terrain analysis, inter-visibility etc.

## **Route Planning**. The facility to plan a route for travel. Can be both manual (setting a number of waypoints) and automatically proposed based on various criteria, including the outputs of terrain analysis. Also, includes the ability to plan movements for Force Elements, taking into consideration the number/quantity and individual characteristics.

## **Route Following**. The facility to follow a planned route, providing turn-by-turn feedback and alerts.

# **Operating Picture**. This service provides the understanding of the operational environment in the context of a commander’s (or staff officer’s) mission (or task). It utilises all the other services to provide an Operating Picture (OP) to the User, relevant to their area of responsibility.

## **Inputs**. The different sources (users, other systems etc.) that can submit objects to the Operating Picture. Includes the ability to attach information to objects and to define new object classes and associated parameters and symbols.

## **Engine (Picture Processing)**. The means by which the OP is validated, de- conflicted and synchronised between Force Elements and Users.

##  **Manipulate**. The use of the OP: to calculate further information (eg distance and bearing between two units/Force Elements/positions), to initiate other Services (eg initiate voice communications with a User by selecting them on the OP) and to change one’s view of the OP through the association and aggregation of different Force Elements.

## **Display**. The ways a User can manipulate their display (pan, tilt, zoom etc.) as well as the various units, projections and coordinate systems in which the OP may be displayed.

## **Save and Archive**. The saving, storage and retrieval of OP Information, both for after-action review and Operational Record Keeping.

# **Mission Planning and Execution**. At the heart of any operation is the requirement to Assess, Plan and Execute. The BMA must support this dynamic and continuous Command and Control (C2) cycle. By providing the user the capability to collect, process, display, store and disseminate information and orders in a way that is faster and better than what the enemy can achieve.

## **Assess**. Assessment within the context of the Operations Process is the monitoring and evaluation of the Common Operational Picture (COP). It is continuous throughout planning, preparation and execution and is dependent on good Situational Awareness (SA), to which it also contributes. Critically, assessment is guided by Information Requirements and provides the basis for the decision making of commanders and staff. It is also an essential supporting activity in the constant fight for understanding.

## **Plan**. The UK uses three formal processes to assist a commander with decision making - the Operational Level Planning Process (OLPP), the Tactical Estimate (TE) and the Combat Estimate (CE). The estimate is a logical process of reasoning by which the commander, faced with an ill structured problem, arrives at a decision for a course of action to be taken in order to achieve their mission. The BMA needs to support development of the TE and the CE.

## **Preparation**. Preparation within the context of Operations Process, includes the activities conducted by a formation or unit prior to execution in order to improve its ability to conduct the operation. These activities include, but are not limited to, plan refinement, rehearsals, reconnaissance, coordination, checks and movement. Preparation generally occurs any time a formation or unit is not executing a specific mission; it starts with receipt of a warning order and ends when execution begins.

## **Execute**. Execution involves the application of combat power to accomplish a mission. In order to achieve this there needs to be a continuous cycle of assessing the current state of the operation and forecasting its progress, decision making to adjust the plan, to account for unforeseen enemy actions and to exploit opportunities and directing actions that apply combat power.

# **BMA as a TIF Service Consumer**. The BMA shall consume appropriate services from the TIF; the BMA should take full advantage of the following interfaces:

## Alarms & Alerts Interface (AAI)

## Data Compression Interface (DCI)

## Data Integrity Service Interface (DISI)

## Directory Service Interface (DSI)

## Friendly Force Reporting Service (FFRS)

## Information Management Service Interface (IMSI)

## Logging Service Interface (LSI)

## Multimedia Management Service Interface (MMSI)

## Network Feedback Interface (NFI)

## Position/Location Interface (PLI)

## Tactical Domain Name Service Interface (TDNSI)

## Tactical Internet Service Interface (TISI)

## Tactical Network Timing Interface (TNTI)

# **BMA as a TIF Service Provider**. The BMA shall provide appropriate services as part of the TIF. The BMA shall implement the following interfaces for use by other services and client applications:

## Geographic Information Service Interface (GISI)

## Symbology Service Interface (SSI)

## ORBAT/TaskOrg Editor

DATES

# All delivery dates stated within this document are final delivery dates e.g. delivery of an artefact, be that documentation or software is the date the Authority deem to be the acceptance date i.e. when the product has undergone review and or testing and the Authority is satisfied with the product. You must ensure deliverables for review or testing give due consideration of the timelines in Schedules 4 and 5.

# Other dates depicted in the document e.g. programme event dates such as IOC/FOC are the 50% confidence dates.

REDACTED

# REDACTED .

DEFINITIONS

# Any such definitions that are not detailed in Schedule 1 are detailed in Appendix 3.

Annex 1 to

Schedule 2

STATEMENT OF REQUIREMENT (SOR)

1. Architecture and Design

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Security Design | The Contractor shall produce, update and maintain a Software Development Plan (SDP) for the BMA that complies with Good Industry practice regarding secure design, coding, testing and deployment. Examples of what the Authority consider Good Industry Practice for secure software design include Open Web Application Security Project (OWASP) Security by Design Principles, Software Engineering Institute’s Team Software Process, and BSIMM Software Security Framework.  | Software Development PlanUp dated SDP |  | General Review Process, Schedule 5 (required 10 Working Days prior to agreed delivery date) |
| 1.
 | Software Design Document | The Contractor shall create, update, manage and maintain a Software Design Document (SDD) for the BMA that exhibits compliance with the Requirements Set. The SDD is a written description by the designer of the software product providing the development team overall guidance to the architecture of the software project. The SDD shall be written using the Unified Modelling Language (UML) to describe objects, relationships and processes. The SDD shall include, as a minimum, information on the following:* all aspects of the software and how they operate;
* User Interface Artefacts and Binaries;
* Business Logic Processes and Binaries;
* Data Storage Structures and Binaries; and
* Third Party Products and how they are integrated within and interact with the BMA.
 | SDD |  | General Review Process, Schedule 5 (required 10 Working Days prior to agreed delivery date)andSchedule 4 & 5Parts 2 - 6  |
|  | Design – Architecture | The BMA shall be designed so that the Solution Building Blocks (SBBs) utilise the MORPHEUS EvO Command and Control (C2) Architecture Building Blocks (ABBs) and fully complies with the MORPHEUS Target System Architecture (MTSA) | Compliant System Design articulated within the SDD.  |  | Schedule 4 & 5[[1]](#footnote-2) |
|  | Design  | The BMA shall be designed so that the SBBs are provided as differentiated services that enable those services to be removed or replaced at will with minimal re-engineering. The Contractor shall record this in the SDD.  . | SDD |  | Schedule 4 & 5 |
|  | Design | The Contractor shall create, update, manage and maintain fully documented Application Programming Interfaces (APIs) and a supply a Software Developers Kit (SDK) for the final BMA solution.The SDK shall enable the Authority to integrate additional services with the BMA in the future. . | Fully documented Application Programming InterfacesBMA Software Developers Kit |  | Schedule 4 & 5 |
|  | Design – Considerations | The Contractor shall design and develop the solution in accordance with the following SOR Sections:* Section 3 – Integrated Logistic Support
* Section 4 – Training
* Section 5 – Health, Safety and Environmental
* Section 6 - Security
 |  |
|  | Design - Style | The Contractor shall design the BMA solution in accordance with the BMA Style guide.The Contractor shall give due consideration to the EvO Style Guide as it develops over the term of the EvO TP Contract.  | Compliant Software Drop |  | Schedule 4 & 5  |
|  | Design – Service Consumer | The BMA SBBs shall be designed to consume the appropriate common (core) services provided via the EvO Tactical Integration Framework (TIF), as explained within the supplied Technical Product Specification. | Compliant System Design articulated within the SDD. |  | Schedule 4 & 5 |
|  | Design – Service Supplier Interfaces | The BMA shall supply the GIS, SS and ORBAT common (core) services accessed via the following interfaces for consumption by other applications via the EvO TIF:* **the Geographic Information System Interface (GISI).** The GISI allows client applications to display map data on a user’s terminal display;
* **the Symbology Service Interface (SSI**). The SSI takes a set of parameters and provides the appropriate APP6 graphical symbol to fuse by client applications eg map overlays; and
* **ORBAT/TaskOrg Editor**. The editor will allow commanders to create, review, update and delete hierarchical military organisations for operations and/or missions. The editor shall be capable of importing organisations from external sources and exporting organisations for use by third party applications.

The Contractor shall also comply with the User Stories, set out within the requirements set in relation to the delivery of these services.  | GISISSIORBAT |  | Schedule 4 & 5 |
|  | Interfaces – Develop Interface Definitions | The Contractor shall engage with and give due regard to suggestions, views or feedback, from the Authority, the Authority’s Contractors or any Authority Representative on the design and development of the TIF common (core) services and their interfaces provided by the BMA. The Contractor shall reach agreement with the Authority on how each of the common (core) service interfaces will be defined prior to finalising the design of the BMA.  | Agreed set of Interface Control Documents for the BMA |  | Schedule 4 & 5 |
|  | Interfaces – Implement Interfaces | The Contractor shall implement, deliver and integrate the BMA utilising the agreed BMA common (core) service interfaces. The Contractor shall update the SDD to record the approach.  | SDD inclusive of Interface Implementation Information |  | Schedule 4 & 5 |
|  | Interfaces – Integrate Consumed Interfaces | The Contractor shall design and develop the BMA solution to consume all of the required common (core) services from the EvO TIF. The Contractor shall work with the Authority and the TP (at their sites) to integrate TIF interfaces consumed by the BMA.This shall be executed between the Initial Drop and EvO Baseline Software Drop. | SDD inclusive of Interface Implementation Information for consumed interfaces. |  | Schedule 4 & 5 |
|  | Interfaces – Integrate Supplied Interfaces | The Contractor shall design and develop the BMA solution to supply all of the required BMA common (core) services to the EvO TIF. The Contractor shall work with the Authority and the TP (at their sites) to integrate TIF interfaces supplied by the BMA.This shall be executed between the Initial Drop and EvO Baseline Software Drop. | SDD inclusive of Interface Implementation Information for supplied interfaces. |  | Schedule 4 & 5 |
|  | Architecture Workshops | The Contractor shall attend Engineering System Coherence Team (ESCoT) workshops with the Authority and the EvO Transition Partner in support of system coherence, knowledge sharing and issue resolution. Workshops are generally held over three days at the QinetiQ site in Malvern and are currently every 12 weeks but may be called more frequently when required. | Meeting attendance |  | Monthly Report |
|  | Architecture Assurance Reviews | The Contractor shall attend and contribute to the Architecture Assurance Reviews from October 2018 onwards.Typically held every 6 months lasting 1 day. | Review attendance and contribution |  | Monthly Report |
|  | Architecture Acceptance Review | The Contractor shall attend and contribute to the Architecture Acceptance Review at the end of EvO.Level of effort anticipated is 2 personnel over 5 days. | Review attendance and contribution |  | Monthly Report |

1. BMA Solution

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Requirements | The Contractor shall design, develop and deliver a BMA that meets BMA Requirements. The BMA Requirements consist of the following artefacts:* Epics and User Stories;
* Non-functional Requirements (NFRs);
* BMA Technical Specification.
 | BMA Solution |  | Schedule 4 & 5Parts 2 - 6 |
|  | Solution – Considerations | The Contractor shall deliver the solution in accordance with the following SOR Sections:* Section 3 – Integrated Logistic Support
* Section 4 – Training
* Section 5 – Health, Safety and Environmental
* Section 6 - Security
 |  |
|  | Solution Contents | The Minimum Viable Product (MVP) for the BMA includes:* All Epics and User Stories annotated as Key in the Epic-ID Column within the Epic and User Story table detailed within Part 2 to Schedule 2.
* All User Stories annotated as Key in the US-ID Column within the Epic and User Story table detailed within Part 2 to Schedule 2 and within compliancy matrix table in the same Part.
* All NFRs annotated as Key in the BMA Priority Column within the NFRs table detailed within Part 3 to Schedule 2 and within compliancy matrix table in the same Part.

The MVP must be delivered by no later than at the Full Functional Software Drop. | BMA Solution |  | Schedule 4 & 5Parts 2 - 6 |
|  | Software Development Plan | The Contractor shall create, update, manage and maintain a Software Development Plan (SDP) detailing how the BMA will be developed.As a minimum, the Software Development Plan shall include the following elements:* scope;
* referenced documents;
* overview of required work;
* plans for general software development, including:
	+ software development process;
	+ software development approaches & methods;
	+ standards;
	+ reusable products; and
	+ hardware resource utilisation.
* plans for detailed software development, including:
	+ establishing a software development environment;
	+ testing (verification & validation);
	+ preparing software for use;
	+ documentation;
	+ configuration management;
	+ quality assurance;
	+ Security and Privacy;
	+ Vulnerability Management Procedures; and
	+ user engagement.

The Contractor shall design the BMA to be secure, develop the BMA in accordance with the Software Development Plan  | Up to Date SDP |  | General Review Process, Schedule 5 (required 10 Working Days prior to agreed delivery date)andSchedule 4 & 5Parts 2 - 6  |
| 1.
 | Implementation | The Contractor shall provide a minimum of 4 (four) Software Drops of the BMA to the Authority. The Software Drops are as follows: **The Initial Software Drop**: a compiled version of source code including additional run time components and installation package. The first delivery of the BMA for integration with the EvO system. At a minimum the software should execute without critical failure on the EvO system. It is provided to allow the TP to start integrating the BMA and must execute on the EvO system; need not fully implement TIF interfaces.* Includes the agreed user interface(s) and all applications, albeit operating via program stubs is acceptable, and is to be free of Critical Software Defects.
* It is provided to allow the TP to start Integrating the BMA.
* Includes user documentation sufficient to operate the functionality that is supplied.

**The Common Services Software Drop**: a compiled version of source code including additional run time components and installation package. A version of the BMA that contains fully implemented TIF services interfaces that are provided by the BMA. Provided to allow the TP to integrate third party applications that use the common services provided by the BMA and must include fully functioning versions of provided TIF interfaces.* Includes an updated initial software drop that includes no more than 25% program stubs and includes fully implemented TIF service interfaces that are supplied by the BMA. The drop is to be free of Critical Software Defects and contains no more than 10 Major Software Defects.
* Is provided to allow the TP to integrate the common services provided by the BMA into the TIF.

**The Full Functionality Software Drop**: a compiled version of source code including additional run time components and installation package which consists as a minimum of the MVP. A version of the BMA that contains all BMA functions including full exploitation of the appropriate TIF services. Provided to allow the TP to start final integration of the BMA and must include fully functioning versions of consumed TIF interfaces.* Includes all BMA functions including full exploitation of the appropriate TIF services as detailed in the BMA Technical Specification. This drop is to be free of Critical Software Defects and should contain no more than 3 Major and no more than 6 Moderate Software Defects.
* Is provided to allow the TP to start final integration of the BMA.
* Includes full software user documentation set

**The EvO Baseline Software Drop**: a compiled version of source code including additional run time components and installation package. A full function BMA with all Software Defects which are identified in the Full Functional Software Drop fixed, unless otherwise agreed with the Authority. Provided to allow GD to complete integration of the BMA.* is an updated Full Functional drop; and
* it is provided to allow the TP to complete the integration of the BMA.

Each and every Software Drop shall be compliant with the latest BMA Design.For each and every software drop all relevant documentation is also to be updated. | Relevant software drops |  | Schedule 4 Part 2 Paragraph 1Schedule 4 Part 2 Paragraph 1Schedule 4 Part 2 Paragraph 1Schedule 4 Part 2 Paragraph 4, 5, 6 & 7 Schedule 5 Part 2 Paragraph 1, 2 & 3  |
|  | Scaling | The Contractor shall ensure the BMA remains useable within a tactical context at any future Up-Scaling ensuring functionality is not degraded at this level of scaling.  | Compliant Scalable Solution |  | Schedule 4 & 5Parts 2 - 6 |
|  | Interoperability | The Contractor shall ensure the BMA environment is interoperable at all levels (HQ, Mounted and Dismounted) with the EvO System.  | Compliant Interoperable Solution |  | Schedule 4 & 5Parts 2 - 6 |
| 1.
 | Delivery of Software Drop | The Contractor shall deliver each Software Drop to the Authority on an Optical Disc Media (CD/DVD ROM). Each delivery shall be accompanied by a Version Description Document (VDD). The VDD shall include, as a minimum, the following information; * version No. of the Deliverable;
* minimum system/software requirements (baseline data) to execute the delivery;
* the computing platform used for compilation and details of the compiler used;
* all known issues and problems;
* installation and set-up instructions; and
* identification of Third Party products/utilities and whether they are integrated or separate.
 | Software Drop Version Description Document. |  | Schedule 4 & 5Parts 2 - 6 |
|  | Software Drop Documentation  | The Contractor shall create, update and maintain the following documentation with respective drops:* Initial Drop - simple user guide detailing the functionality supplied.
* Full Functionality Software Drop – Complete user documentation covering the complete spectrum of the software capability.
* EvO Baseline Software Drop – updated accordingly.
* With Training Materials – Complete user documentation representing the integrated software capability.

Complete documentation is to include as a minimum:* Full user manual;
* User (quick start) guide;
* Common work routines (aide memoire);
* FAQs document; and
* Trouble shooting guide.
 | Suite of User Documentation |  | General Review Process, Schedule 5 (required 10 Working Days prior to agreed delivery date) |
|  | Software Installation Packages | The Contractor shall deliver an installation package suitable to the operating system in use per computing platform type as detailed in the BMA Technical Specification.The installation package shall completely set-up the BMA and all necessary components required for a properly installed and licenced run-time environment. | Installation Package |  | Schedule 4 & 5Parts 2 - 6 |
|  | Public Domain Software | The Contractor shall disclose the full details of any Public Domain software used within the solution, including but not limited to:* Provider
* Licencing terms
* Conditions of use
 | Software Development Plan (SDP) inclusive of information on Public Domain Software. |  | Schedule 4 & 5Parts 2 - 6 |
| 1.
 | Software Modification | Where publicly available source code is used, the Authority shall be informed of any modification by the Contractor. | Software Development Plan (SDP) inclusive of information on modifications to Public Domain Software. |  | Schedule 4 & 5Parts 2 - 6 |
| 1.
 | Implementation Cadence and Synchronisation | The Contactor’s delivery programme is to fully support the TP’s SAFe V4 cadence and synchronisation.The Contractor shall be technically represented at all Planning Increment (PI) events and demonstrations.Attendance at demonstrations is only mandated when the BMA is presented.PI Cadence is as follows:

|  |  |  |
| --- | --- | --- |
| **Planning Increment (PI)** | **PI - Planning Week** | **PI Dates** |
| 6 | ***REDACTED*** | ***REDACTED*** |
| 7 | ***REDACTED*** | ***REDACTED*** |
| 8 | ***REDACTED*** | ***REDACTED*** |
| 9 | ***REDACTED*** | ***REDACTED*** |
| 10 | ***REDACTED*** | ***REDACTED*** |
| 11 | ***REDACTED*** | ***REDACTED*** |
| 12 | ***REDACTED*** | ***REDACTED*** |

Solution Demo Dates

|  |  |
| --- | --- |
| **Planning Increment (PI)** | **Solution Demo** |
| 6 | ***REDACTED*** |
| 7 | ***REDACTED*** |
| 8 | ***REDACTED*** |
| 9 | ***REDACTED*** |
| 10 | ***REDACTED*** |
| 11 | ***REDACTED*** |
| 12 | ***REDACTED*** |

 | Attendance and contribution to PIs |  | Monthly Report |
| 1.
 | Integrated Test Evaluation and Acceptance Plan (ITEAP) | The Contractor shall fully respond to the Authority’s ITEAP detailing their approach to Test, Evaluation and Acceptance within their engineering approach. The Contractor ITEAP must respond to all aspects covered within the Authority’s ITEAP. | Contractor ITEAP |  | At CA |
| 1.
 | BMA Test & Acceptance Plan (T&AP) | The Contractor shall create, update, manage and maintain a BMA Test and Acceptance Plan in accordance with the Contractor’s ITEAP Response and the Authority’s ITEAP. This shall include as a minimum:* all Test and Acceptance Activities;
* dates;
* resources/Tools;
* processes and procedures; and
* any input required from the Authority.
 | BMA Test and Acceptance Plan |  | At CA |
|  | Verification | The Contractor shall perform test and verification of the BMA in accordance with the Contractor’s BMA Test and Acceptance Plan (as a minimum this should include the Initial, Common Services, Full Functionality & EvO Baseline Software drops). The Authority or its Representative shall be invited to witness each and every test and/or acceptance event.  | Test Events and VVRM |  | Schedule 4 & 5 |
|  | EvO Capability Acceptance Test Cases (CATC) and Capability Acceptance Test Procedures (CATP) | The Contractor shall review (and provide feedback to the Authority in relation to) the CATC and CATP to enable the Authority to determine if, when the CATC and CATP are executed, they will enable the verification of the achievement of the whole or relevant part of the Capability Use Case. | Evaluation Report |  | [per request] |
|  | EvO Acceptance Support | The Contractor shall provide support to the following formal EvO Acceptance Reviews:* Capability Acceptance Test Case Review
* EvO Architecture Acceptance Review
* Capability Acceptance Test Procedure Review
* Lab-based Acceptance Test Readiness Review
* MTRC Design Document Acceptance Review
* MORPHEUS Architecture Acceptance Review
* First of Type Field Test Readiness Review
* EvO System Acceptance Test Review
 | Attend and contribute to formal reviews |  | Schedule 4 & 5 |
| 1.
 | BMA Test Cases | The Contractor shall develop and deliver BMA Test Cases for all Epics, User Stories and Non-Functional Requirements (NFRs) to be tested during the development of the BMA. | BMA Test Cases |  | Schedule 4 & 5Part 2 |
| 1.
 | BMA Acceptance Test Cases | The Contractor shall develop and deliver BMA Acceptance Test Cases for all Epics, User Stories and NFRs to be tested during the final Acceptance event of the BMA once integrated in to the EvO System. | BMA Acceptance Test Cases |  | Schedule 4 & 5Part 2 |
|  | BMA Architecture Acceptance Test Cases  | The Contractor shall develop and deliver BMA Architecture Acceptance Test Cases to demonstrate that the BMA complies with and utilises the MORPHEUS EvO Command and Control (C2) ABBs and fully complies with the MTSA and the TIF interfaces, | BMA Architecture Acceptance Test Cases  |  | Schedule 4 & 5Part 2 |
| 1.
 | Test Procedures | The Contractor shall provide Test Procedures for each BMA Test Case and BMA Acceptance Test Case to the Authority detailing the procedure for the appropriate Test Case. | BMA Test Procedures |  | Schedule 4 & 5Part 2 |
| 1.
 | BMA Pre-Integration Test Report | The Contractor shall provide a BMA Pre-Integration Test Report summarising the results for all the BMA Test Cases, test execution, analysis and outcomes of the testing prior to final integration of the BMA with the EvO System. | BMA Pre-Integration Test Report |  | Schedule 4 & 5Part 2 |
| 1.
 | BMA Post-Integration Acceptance Report | The Contractor shall provide a BMA Post-Integration Acceptance Report summarising the results for all the BMA Acceptance Test Cases, test execution, analysis and outcomes of the testing following the final integration of the BMA with the EvO System. | BMA Post-Integration Acceptance Report |  | Schedule 4 & 5Part 2 |
| 1.
 | Verification & Validation Requirements Matrix | The Contractor shall provide a Verification & Validation Requirements Matrix (VVRM) progressively recording the results for all the Assurance and Acceptance Tests of the User Stories and the Non-Functional requirements via integration, assurance or acceptance tests and the produced outcomes. The VVRM shall include as a minimum:* the User Story or Non-Function Requirements (including unique identifier);
* the test type (integration, assurance, acceptance);
* test method;
* test case(s) applicable;
* the date of the test; and
* the final outcomes of each test.
 | VVRM (Typically an MS Excel file) |  | Schedule 4 & 5 |
| 1.
 | Openness Qualification | The Contractor’s solution shall meet the Authority’s Openness Tests as detailed at Appendix 2 that will be tested by the Authority’s Openness Testing Partner.The Contractor shall conduct openness testing on the BMA when it has been completed and provide an Openness Testing Report with the results of the tests against the criteria in Appendix 2.  | Complaint SoftwareOpenness Test Outcomes recorded in VVRM. |  | Schedule 4 & 5Part 2 |
|  | Software Licencing | The licences that the Contractor has granted pursuant to Schedule 14 shall provide licences for 600 instantiations of the BMA to be used simultaneously on the date of and after the Initial Software Drop. | licences for 600 instantiations |  | At point of delivery  |
|  | IT Health Check | Prior to delivery of the Initial and Baseline Drop Versions of the BMA. The Contractor shall engage an independent accredited third party to conduct an IT Health Check (ITHC) of the software to be installed and integrated onto the EvO System and provide the results to the Authority for review and feedback. The independent accredited third party shall be a CHECK provider.  The ITHC will result in a report detailing the number, type and severity of issues identified, with Common Vulnerability Scoring System (CVSS) scores included where possible. Each identified vulnerability is associated with a suggested remedial solution. | Initial Drop ITHC ReportEvO Baseline Software Drop ITHC Report |  | Schedule 4 & 5Part 6  |
|  | IT Health Check | The Contractor shall engage with the Authority on the results of each of the ITHCs and complete any remediation actions, against identified security issues, as required by the Authority.The Contractor shall rectify security issues within ten (10) Working Days, or a period as agreed with the Authority. | Security Compliant Software Drops |  | Schedule 4 & 5Part 6 |
|  | IT Health Check | The Contractor shall engage with the Authority and TP on the results of the ITHC for the EvO System and complete any remediation actions, against identified security issues with the BMA, as required by the Authority.The Contractor shall rectify security issues within ten (10) Working Days, or a period as agreed with the Authority. | EvO System BMA Security Compliant |  | Schedule 4 & 5Part 6 |
|  | Performance Models | The Contractor shall create, update and maintain the BMA System Performance Model. | Up to date BMA System Performance Model.  |  | Schedule 4 & 5 |

1. Integrated Logistics Support

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Integration Support | The Contractor shall provide Integration Support to the Transition Partner both during the delivery of this Contract and in particular the period following a Software Drop. The Integration Support shall involve, as a minimum, the following activities:* Attendance to the Oakdale site for pre-system integration workshops (for each named Software Drop (see §2.5) of 1 week duration)
* attendance to the Oakdale site (for system integration events), with a current version of the BMA on a Portable Development Environment, in order to assess and rectify, where possible, technical issues during the integration of the BMA with the EvO System; and
* providing guidance and assistance to the Authority and TP during the integration of the BMA into the EvO System.
 | Technical Issue Resolution during Integration of BMA to the EvO System.  |  | Monthly Report |
|  | Integrated Support | Where technical issues cannot be rectified on the Portable Development Environment the Contractor shall rectify them within ten (10) Working Days, or a period as agreed with the Authority.The Contractor shall produce an Issue Test Report detailing the issue and resolution. | An updated Software Drop with Technical Issues resolved. An updated Version Description Document.Issue Test Report |  | Schedule 4 & 5All Parts but notably Part 4 |
| 1.
 | ILS Management – Integrated Support Plan | The Contractor shall provide an Integrated Support Plan (ISP) for the management and execution of ILS for the BMA in compliance the ISP Product Description in Schedule 19.  | Integrated Support Plan |  | Schedule 4 & 5All Parts but notably Part 4 |
| 1.
 | Configuration Management Plan | The Contractor shall create, update and maintain a BMA Configuration Management Plan which, as a minimum, shall describe and/or contain the following:* how and where the project’s products will be stored; e.g. provision of a Definitive Medial Library (DML) (hard copies) and a shared working environment (for the Authority to access software).
* what storage and retrieval security will be put in place;
* how the products and various versions and variants of these will be identified;
* how changes to the products will be controlled;
* where responsibility for configuration management will lie and how the interface between the Contractor and the Authority will be organised and function;
* it shall determine the tools and techniques to be used;
* it shall also define the relationship between ILS and Configuration Management;
* all elements that require configuration management to enable support of the capability shall be identified;
* the data associated with each configuration item/element to enable management of the capability shall be identified; and
* how the technical information configuration audit will be conducted.
 | Configuration Management Plan |  | Schedule 4 & 5All Parts but notably Part 4 |
| 1.
 | Human Factors Integration (HFI) Plan | The Contractor shall create, update and maintain an HFI Plan for the BMA in accordance with, as a minimum, the following: * full details of all planned HFI activity including:
	+ details of HF related considerations recorded in an appropriate format (typically MS Office format); and
	+ details of how HF requirements will be managed and the process by which they will be further derived to specification level.
* details of HF analytical methods, tools and techniques that will be used.
* schedule of planned evaluations for HFI (including all stakeholders where applicable).
 | HFI Plan |  | Schedule 4 & 5All Parts but notably Part 4 |
|  | Human Factors Engagement | The Contractor shall attend and contribute to the HFI Working Groups and be available for technical collaborative working groups with 3rd parties to provide input into HFI requirements. | Attendance and contribution to HFI  |  | Monthly Report |
| 1.
 | HF Style Guide | The Contractor shall create, update and maintain a Style Guide in accordance with, as minimum, the following principles:* look and feel;
* method of operation;
* types of control;
* types of display;
* colour conventions;
* stereotypes for operating controls; and
* layout of controls and display.

The Contractor shall give due consideration to the EvO Style Guide as it develops over the term of the EvO TP Contract when they are designing the BMA Style Guide.  | BMA Style Guide |  | Schedule 4 & 5All Parts but notably Part 4 |
|  | HMI Design Specification | The Contractor shall create, update and maintain the HMI Design Specification in accordance with the following, as a minimum:* introduction and guidelines for the interpretation of the HMI Design Specification;
* identify how the BMA follows the HMI development process;
* provide a section that describes each aspect of the HMI for the BMA; and
* an explanation of the development of the low and high fidelity wireframes.
 | HMI Design Specification |  | Schedule 4 & 5All Parts but notably Part 4 |
|  | HFI Case Report | The Contractor shall create, update and maintain the HFI Case Report in accordance with the following, as a minimum:* an introduction, identification, scope and document overview;
* BMA description; application, services, processes, boundaries, key risks, assumptions, issues, dependencies and opportunities;
* an overview of the HFI approach undertaken, the relationships between HFI and other areas of the BMA functions, the relationship between the HFI Case Report and other product artefacts; and
 | HFI Case Report |  | Schedule 4 & 5All Parts but notably Part 4 |
| 1.
 | Software Support Plan | The Contractor shall create, update and maintain a Software Support Plan in compliance with the SSP Product Description in Schedule 19. | Software Support Plan |  | Schedule 4 & 5All Parts but notably Part 4 |
|  | FOT Support | The Contractor shall provide support to the EvO First of Type (FOT) trial event. The support to the FOT shall involve, as a minimum, the following activities:* attendance to the FOT, at a UK location, with a current version of the BMA on a Portable Development Environment, in order to assess and rectify, where possible, technical issues during the FOT of the EvO System; and
* providing guidance and assistance to the Authority and Authority staff on the usage of the BMA during the FOT event.
 | Technical Issue Resolution during FOT |  | Monthly Report |

1. Training

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
| 1.
 | Training Needs Analysis & Report Set | The Contractor shall create, update and maintain a Training Needs Analysis (TNA) for the BMA. As a minimum, the TNA Repot set shall include:* a Training Support Plan (TSP);
* a Scoping Exercise Report (SER);
* a Role Analysis (RA);
* a Training Gap Analysis (TGA);
* a Training Options Analysis (TOA);
* a Team/Collective Task Analysis (TCTA);
* an Overlay Analysis (OA);
* a Collective Training Objectives (CTOs);
* an Environmental Analysis (EA) and;
* a Training Needs Report (TNR).

The Contractor shall deliver the Training Needs Analysis in compliance with the TNA Product Description in Schedule 19 and JSP 822.The Contractor should note that parts of the BMA TNA will be utilised for the EvO and MORPHEUS System TNAs.  | Up to Date Training Needs Report Set (TNR) |  | DSAT Report FormatSchedules 4 & 5Part 3 |
|  | Training Subject Matter Experts | The Contractor shall provide access to Subject Matter Experts (SMEs) of the BMA and BMA training, and shall respond to clarification questions raised by the Authority arising out of or in connection with any documentation and/or other items submitted by the Contractor to the Authority in connection with Training.The Authority shall give reasonable notice when this support is required.  | Attendance and contribution at meetings. Responses to clarification questions. |  | Monthly Report and review of CQ responses.  |
|  | Training Experts Availability of Working Groups | The Contractor shall attend and contribute to the Training Working Group (TWG) and Training Needs Analysis Steering Group (TNASG) and be available for technical collaborative working groups with 3rd parties to provide input into Training Needs Analysis and requirements. | The Contractor is to abide by meeting minutes and provide input/feedback as required. |  | BATCIS MORPHEUS Training Manager content with the following:* Attendance by appropriately experienced personnel to the TWG and TNASG
* Tasks/queries within scope of the contract placed on the Contractor are actioned in accordance with the meeting minutes
 |
| 1.
 | Training Material | The Contractor shall provide training artefacts/material for the BMA. It shall include the DSAT Element 2 deliverables, as a minimum, of:* Individual/Collective Training Objectives (TOs/CTOs)
* Formal training Statement
* Enabling Objectives (Eos)/Key learning Points (KLPs)
* Assessment Specification (ASpec)
* Learning Specification (LSpec)
* Collective Training Trainer Tasks.

Training material may be any of the following:* Presentations
* Workbooks
* Self-Study tutorials
* Training instructor guides
* Student training materials
* Audio and visual aids
* User Manual
* Computer-based emulations
* Applications
* Virtual reality and simulation
* Quick start guides
* Aide memoires

The Contract shall deliver when required a Product Description (for Authority agreement) for each and every material item they intend to produce.The Contractor shall deliver each Training Material type in compliance with its Product Description (to be agreed), JSP 822 and the following:* material shall be SCORM (Shareable Content Object Reference Model) compliant;
* Virtual Reality and Simulation training shall be Training Environment Architecture (Land) (TEA(L)) compliant;
* E-Learning Packages shall be Windows, Apple IOS and Android compatible in accordance with DefStan: 00-250 Human Factors for Designers of Systems, Part 3, Section 11; and
* simulation training shall be compliant with DefStan: 93-50 DTEC Modelling and Simulation (M&S) Standards Profile.
 | Training Material |  | Schedules 4 & 5Part 3 |

1. Health, Safety and Environmental

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
| 1.
 | Safety Management | The Contractor shall create, maintain and update a PE Safety Management Plan as required by Def Stan 00-055 Issue 4. | PE Safety Management Plan (PESMP) |  | Regular Review10 Working DaysSchedule 4 & 5 Part 5 applies |
|  | Use and Operational Safety | The Contractor shall ensure that the level of safety risk of the BMA shall be at least Tolerable and As Low As Reasonably Practicable (ALARP) as required by Def Stan 00-056 Pt 1 Issue 7, Pt 2 Issue 5 and Def Stan 00-055 Issue 4 and shall conform to the following:* The BMA shall have no Safety Critical failures;
* BMA hazardous behaviour, including generation and use of data shall be identified and mitigated - *while not declared as Safety Critical, the BMA is considered Safety Related and the integrity requirements of the system, and the setting of an appropriate Integrity Level, should be determined as part of the mitigation strategy and maintained such that other applications utilising BMA services do not compromise the Applications Safety Case;*
* No uncontrolled hazards shall be presented to the User in normal operation;
* No uncontrolled hazards shall be presented to the User in abnormal (e.g. Battle damage) conditions;
* Appropriate certification shall be achieved and maintained;
* the BMA shall be capable of hosting other systems/applications without compromising their respective safety cases;
* The BMA shall remain safe to use during update or upgrade; and
* The BMA shall maintain Safety Risk as at least Tolerable and ALARP through-life.
 | ALARP and Tolerability statements in accordance with DSA03 – Land System Safety and Environmental Protection Defence Codes of Practice  |  | Regular Review10 Working DaysSchedule 4 & 5 Part 5 applies |
| 1.
 | Risk Management | The Contractor shall create, update and maintain a Hazard Log which shall Conform to the requirements of Def Stan 00-056 Part 2 Issue 5. | Up to date Hazard Log (HL) |  | Regular Review21 Working DaysSchedule 4 & 5 Part 5 applies |
| 1.
 | Safety Case | The Contractor shall produce, update and maintain a Safety and Environmental Case (S&EC) and Report (S&ECR) - which shall Conform to the requirements of Def Stan 00-056 Part 2 Issue 5. | Safety and Environmental Case Report (S&ECR) |  | Regular Review21 Working DaysSchedule 4 & 5 Part 5 applies |
|  | Platform Safety | The Contractor shall ensure that the capability shall, as a minimum:* not compromise the safety of the (Platform) in which it is installed or interoperates with;
* not prevent the User from complying with (Platform) safety and operating procedures;
* allow the User to be able to comply with (Platform) safety and operating procedures; and
* not degrade the (Platform’s) functionality or systems due to use of the dismounted capability; including when devices are set to not transmit and whilst users are wearing dismounted equipment and assault order.
 | HL and/or SECR - ALARP and Tolerability statements in accordance with DSA03 |  | Regular Review21 Working DaysSchedule 4 & 5 Part 5 applies |
|  | Safety & Environmental Meetings | The Contractor shall attend and contribute to the MORPHEUS Project Safety & Environmental Management Panel (MPSEP) meetings. It is estimated that meetings will be on a six (6) monthly basis.  | SME attendance and support to MPSEP meetings |  | Pre-MPSEP ReportSchedule 4 & 5 Part 5 applies |
|  | Safety & Environmental Working Groups | The Contractor shall attend and contribute to MORPHEUS S&E Working Groups (WG).It is estimated that WGs will be on a two (2) Monthly basis. | SME attendance and support to MORPHEUS S&E WG  |  | WG ReportSchedule 4 & 5 Part 5 applies |
| 1.
 | Safety Legislation | The Contractor shall produce, update and maintain a Safety and Environmental Legislation Trackers. The Safety and Environmental Legislation Trackers should look at current, future and consultations of both UK Statutory Legislation and EU Directives. Until such time as the UK leaves the EU both legislations will remain extant. There should be two trackers one each for safety and environmental.The Contractor shall make recommendations to the Authority's delegated Project Safety Officer on possible impacts of legislative changes or amendments | A Safety Legislation Tracker  |  | Regular Review21 Working DaysSchedule 4 & 5 Part 5 applies |
|  | Safety Assurance | The Contractor shall provide the Authority appointed Independent Safety Auditor (ISA) access to information and personnel necessary to carry out their duties.The Contractor shall ensure that each of their Sub-contractors provides the Authority with access to the same information and personnel when required. | Provision of documentation for audit as required |  | Availability of Data as requiredSchedule 4 & 5 Part 5 applies |
| 1.
 | Safety Actions | The Contractor shall produce, update and maintain a Safety Risks action tracker which, as a minimum, shall:* record and manage all Safety Risks; manage Safety Incident Reports (IR's); and
* record any safety incidents reported by other means.
 | Safety Risks Action Tracking Tool |  | Regular Review21 Working DaysSchedule 4 & 5 Part 5 applies |
|  | Support to System Safety Cases | The Contractor shall provide support to the preparation and maintenance of the EvO System Safety Case. | Provision of safety related information in support of the development of the EvO System Safety Case |  | Regular Review10 Working DaysSchedule 4 & 5 Part 5 applies |

1. Security

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Security Support | The Contractor’s Security Manager shall attend and contribute in Security Working Groups (SWGs) as and when required (which are estimated to be no more than three (3) times a year) and act as a single point of contact for all matters relating to Security for the Authority. | Attendance and contribution in Security Working Groups |  | Monthly Report |
|  | Security Management Plan | The Contractor shall provide a subset of accreditation and assurance evidence for the BMA to support EvO Accreditation.  | Security accreditation and assurance evidence. |  | Schedule 4 & 5 Part 6 |
| 1.
 | Security Impact Analysis | The Contractor shall conduct Security Impact Analysis and deliver a Security Impact Analysis Report. As a minimum the Security Impact Analysis Report shall include the following information, as a minimum:* identification of the security components of the BMA;
* indication of whether the BMA software will either have an impact or no impact upon the security components of the EvO System and justify the position; and
* identification of where the BMA will interact with the existing security functionality of the EvO System and indicate if it is intended to introduce new security functionality to the EvO System.
 | Evidential SIA report  |  | Schedule 4 & 5 All Parts but notably Part 6 |
|  | Security Audits and Reviews | The Contractor shall provide any and all elements of the BMA, to the Authority or designated third party, including but not limited to the Source Code for the purposes of any audit or review the Authority deems necessary in order to meet any security requirements or restrictions which it may have from time to time. A security review may entail automated testing using a static code analysis tool, manual review of selected elements of the code, or a combination involving both methods. | Audit and/or Review |  | Audit/Review Report - to the satisfaction of the Accreditor that all potential security issues have been addressed. |

1. Programmatics (Project Management)

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
| 1.
 | Project Management Plan | The Contractor shall create, update, manage and maintain a Project Management Plan (PMP) for the delivery of the BMA.The PMP shall provide a coherent source of information that defines the project and how it will be managed from contract award through to disposal. It should detail the major products, milestones, activities and resourcesrequired on the project.As a minimum, this shall include information or links to information on the following:* background to the project;
* project objectives and/or requirements, scope and exclusions and any constraints;
* description of project approach, including project management lifecycle and its relationship with other applicable lifecycles such as the CADMID acquisition lifecycle;
* stakeholder management plan/strategy for the BMA;
* dependencies management plan/strategy;
* risks, issues, opportunities and assumption management plans/strategies;
* communication management plan/strategy;
* change management plan/strategy;
* configuration management plan/strategy;
* requirements management;
* quality assurance/management plan/strategy;
* project monitoring and control management plan/strategy;
* project reporting management plan/strategy;
* information management plan/strategy;
* project organisation for the BMA project including key role descriptions, terms of reference and authority levels. This should be provided via an Organisation Breakdown Structure (OBS);
* Subcontractor management plan/strategy;
* Work Breakdown Structure (WBS) and WBS Dictionary describing the Statement of Work (SoW);
* acceptance management plan/strategy;
* performance measurement plan/strategy; and
* a high-level summary project schedule (plan on a page graphic) depicting major contractual milestones, critical project events and significant accomplishments to each major milestone along with completion criteria over the contract period of performance, such as (but not limited to) dependencies, milestones, critical path activities, GFA

The Contractor shall deliver the project in accordance with the Contractor PMP to deliver the full scope of the Contract. | Contractor PMP  |  | General Review Process, Schedule 5 (required 10 Working Days prior to agreed delivery date) |
| 1.
 | Project Schedule | The Contractor shall create, update (weekly), manage and maintain a fully resourced BMA Project Schedule ensuring sufficient detail to allow the Authority to monitor actual progress against planned progress for each activity on the schedule. The schedule line items should as a minimum include a listing of the project’s milestones, activities, dependencies and deliverables with intended start and finish dates.The BMA Project Schedule shall enable the following events on the dates listed below:* Initial Software Drop: **REDACTED**
* Common Services Drop: **REDACTED**
* Full Functional Drop: **REDACTED**
* Supply Openness Test Results **REDACTED**
* Supply BMA Software Documentation **REDACTED**
* Supply Qualification Documentation **REDACTED**
* Supply Certificate of Conformance **REDACTED**
* EvO Baseline Software Drop: **REDACTED**
* the Transition Partner’s SAFe V4 cadence and synchronisation (detailed at Section 2.13)

The Contractor shall hold the BMA Project Schedule in an area accessible by the Authority. | BMA Project Schedule |  | Weekly ReportMS Project based schedule covering the term of the contract.A Visio based high level Plan on a Page must also be provided. |
|  | Progress Reporting | The Contractor shall comply with the governance requirements set out in Schedule 8 of the Contract.  |  |  | Weekly & Monthly Report document |
|  | Kick Off and Programme Alignment Meeting | Immediately after Contract Award the Contractor shall organise a Contract Kick Off meeting at their premises (if UK based). This shall as a minimum include:* introduction of personnel (especially those in key roles)
* provide the Authority with a tour of their premises primarily focussing on the facilities to be used during the contract;
* discussing the PMP and Project Schedule;
* discussing the initial Contract Governance;
* discussing the formats for the Weekly and Monthly reviews to include burn up/down tracking categories
* discussing any necessary Non-Disclosure Agreements (specifically between the Contractor and the Authority’s TP);
* agree date for Programme Alignment meeting with collaborative parties;
* any requisite activity for access a shared data environment;
* a brief presentation on key provisions in the Contract which need to be considered during delivery by the Authority Commercial Officer; and
* Any Other Business.

The Authority reserves the right to change this location to the REDACTED if the Contractor is based outside the UK.The Contractor shall invite as a minimum the following Authority Personnel; * the BMA Project Manager;
* the Authority Commercial Officer;
* the BMA Technical Lead;
* the BMA Capability Manager; and
* any other individual the Authority designates as necessary.
 | Kick Off Meeting |  | Minimum of 1 meeting |
|  | Programme Alignment Meeting | Immediately after the Kick Off meeting a Programme Alignment Meeting is to be conducted between the collaborative parties (Authority, Army HQ, Authority’s TP and the Contractor). The meeting will take place at the TP’s premises. This shall as a minimum include:* introduction of personnel
* provide the parties with a tour of their premises focussing on the facilities to be used during the contract e.g. integration lab;
* discussing the Project Schedule;
* discussing the Risk Register;
* discussing the Systems Integration engineering activities;
* discussing NDAs if necessary; and
* Any Other Business.

The Contractor shall as a minimum ensure that every sub-work stream e.g. architecture, safety, security, ILS, HF etc. are represented on this meeting.  | Alignment Meeting |  | Minimum of 2 meetings |
|  | Delivery of Artefacts (maturing versions) | The Contractor shall ensure that all Key Deliverables are made available to the Authority on their Development Environment as they mature (and the Authority’s Representative notified) in accordance with paragraph 4 of Part 1 of Schedule 4 (*Assurance Process*). | Continuous access to Key Deliverables |  | Monthly Report |
|  | Delivery of Artefacts (approved version) | The Contractor shall ensure that all Key Deliverables that are approved by the Authority are made available to the Authority within the Collaborative Working Environment (and the Authority’s Representative notified) in accordance with paragraph 4 of Part 1 of Schedule 4 (*Assurance Process*). | Approved Key Deliverables |  | Monthly Report |
| 1.
 | Risk & Issue Management | The Contractor shall create, update, manage and maintain a risk and issue register that will be reviewed jointly as part of the WPRs and MPRs. As a minimum the register should include:* Unique ID for each risk
* Name
* Description/narrative
* Cause narrative
* Impact narrative
* Likelihood rating
* Impact rating
* Risk score pre-mitigation
* Risk Owner
* Earliest Impact date
* Mitigation Plan/Information
* Mitigation Owner
* Action due date
* Post mitigation likelihood rating
* Post mitigation impact rating
* Post mitigation score
* Schedule activity to which risk relates (if applicable)
* Date Closed
* Comments
 | Risk Register (MS Excel)  |  | Weekly & Monthly Report document |
| 1.
 | Dependencies  | The Contractor shall create, update, manage and maintain a dependency register which shall reflect Schedule 7 for all GFA requirements. that will be reviewed jointly as part of the WPRs and MPRs.  | Dependency Register (MS Excel) |  | Weekly & Monthly Report document |
| 1.
 | Opportunities | The Contractor shall produce and maintain an opportunities register that will be reviewed jointly as part of the WPRs and MPRs. | Opportunities Register (MS Excel) |  | Weekly & Monthly Report document |
| 1.
 | Contractor’s Master Data and Assumptions (CMDAL) | The Contractor shall create, update, manage and maintain the Authority with their Contractor’s Master Data and Assumptions List (CMDAL). As a minimum the List should include:* unique ID for each assumption;
* date the assumption was raised;
* description – concise yet clear and comprehensive description outlining the assumption;
* reason for assumption;
* source of the assumption;
* priority (qualitative assessment) high, medium, low – Contractor to define levels;
* confidence (qualitative probability of event occurring) high, medium, low – Contractor to define levels;
* type – differentiate between planning and costing assumptions (Mandatory);
* date the assumption will impact (trigger date);
* expiry date;
* consequences if assumption is not correct;
* schedule activity to which assumption relates (if applicable);
* validation requirements/information; and
* comments.
 | MDAL (MS Excel) |  | Weekly & Monthly Report document |
| 1.
 | Actions Log | The Contractor shall create, update, manage and maintain an actions log. that will be reviewed jointly as part of the WPRs and MPRs | Actions Log |  | Weekly & Monthly Report document |
|  | Project History | The Contractor shall create, update, manage and maintain a Project History log. that will be reviewed jointly as part of the MPRs. | Project History Log |  | Monthly Report document |
| 1.
 | Technical Documentation Management Plan (TDMP) | The Contractor shall create, update and maintain a Technical Documentation Management Plan (TDMP) in compliance with the TDMP Product Description in Schedule 19. | Technical Documentation Management Plan |  | Schedule 4 & 5All Parts but notably Part 4 |
| 1.
 | Quality Assurance/ Management | The Contractor shall deliver a Quality Plan (QP) in accordance with the Quality Standards in Schedule 15 to the Contract. | Quality Plan (MS Word document) |  | Schedule 4 & 5All Parts but notably Part 4 |

1. Relationship Management

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | ISO44001 | The Contractor is to use this project by way of evidence towards Certification for ISO44001 (if not already certified). A milestone payment, staged on successful completion will be awarded. | ISO44001 Certification |  | Proof of ISO44001 Certification |
|  | ISO44001 | The Contractor shall, in compliance with the requirements of ISO-44001, attend and participate in a breakthrough event with the Authority. The event will be over two days and set the foundation for the relationship. The Contractor shall ensure that suitably empowered individuals are in attendance, the Authority will attend with the BATCIS Management Team. | Breakthrough EventBehaviours CharterDraft Relationship Management Plan |  | Consensus from the Breakthrough Event attendees |
|  | ISO44001 | During the course of the breakthrough event the Contractor shall, in conjunction with the Authority develop a Behaviours Charter for the Contract taking account of the MORPHEUS Behaviours and REDACTED Ways of Working.  | Behaviours Charter |  | Consensus from the Breakthrough Event attendees |
|  | ISO44001 | During the course of the two days the Contractor shall, in conjunction with the Authority develop a Draft Relationship Management Plan (RMP). The Draft Relationship Management Plan shall take account of other documentation including the Contract and provide links and references where information already exists. The Authority will provide previous examples on the day The Draft Relationship Management Plan shall be in compliance with the RMP Product Description in Schedule 19. | Draft Relationship Management Plan |  | Consensus from the Breakthrough Event attendees |
|  | ISO44001 | The Contractor shall deliver, manage and maintain an Exit Plan in accordance with the provisions of Schedule 17 of the Contract.  | Exit Plan |  | As per Schedule 17 |
|  | ISO44001 | The Contractor shall engage with the Authority to deliver a Joint Business Continuity Plan for the delivery of the Contract describing roles for both the Authority and the Contractor if a Business Continuity Event arises.  | Joint Business Continuity Plan |  | BCP Agreed |
|  | ISO44001 | The Contractor shall achieve ISO 44001 during the term of the Contract. The Contractor shall use the evidence which is developed under this Contract when achieving the accreditation.  | ISO 44001 Certification |  | Contractor achieves ISO 44001 Certification |

1. Options

**OPTION 1: Solution Scaling and Support EvO Operational Field Trial (OFT) (Core Capability)**

**Option 1ai: Licence Scaling and Support for OFT**

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | MORPHEUS Scaling/Licences | The Contractor shall provide a licencing solution for the Operational Field Trials (OFT) which shall enable the BMA to be scaled up to support the trial event with 2,000 instantiations.  | BMA Software Licences for OFT for 2,000 instantiations |  | At Delivery |
|  | Support to OFT | The Contractor shall provide support to the MORPHEUS Systems Integrator for the Operational Field Trials (OFT) of the EvO System. The support to the OFT shall involve, as a minimum, the following activities:* attendance to the OFT, at a military training area in the UK, with a current version of the BMA on a Portable Development Environment, in order to assess and rectify, where possible, technical issues during the OFT of the EvO System; and
* providing guidance and assistance to the Authority and Authority staff on the usage of the BMA during the OFT event.

Review the report to be prepared by the System Integrator following the OFT, making any comments considered appropriate and confirming whether or not the Contractor accepts the findings of such report. | Support to the Operational Field Trial |  | Upon completion of OFT.  |

**Option 1aii: Licence Scaling (Full Capability) and Enhanced Dismount Licence Scaling**

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | MORPHEUS Scaling/Licences | The Contractor shall provide a licencing solution for MORPHEUS which shall enable the BMA to be scaled up to a total of 17,000 terminals for the life of the EvO and MORPHEUS Systems.  | BMA Software Licences |  | At Delivery |
|  | Enhanced Dismounted Scaling/Licences | The licencing solution for the Enhanced Dismounted option shall be required to scale to 7,000 instantiations for dismounted users. | 7000 licence instantiations |  | At delivery |

**Option 1b: Note Used**

**Option 1c: EvO OFT Training Delivery**

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Training delivery | The Contractor shall deliver training for the purposes of an Operational Field Trial for BMA Solution, in support of any wider training package for both the EvO System and/or the MORPHEUS System.  The training shall be delivered to the participants of the OFT in accordance with the TNA and OFT Plan. Training Delivery shall include the full DSAT process of Analysis, Design, delivery (physical BMA Instruction) and Evaluation and be compliant with JSP 822.   | BMA Training package delivered |  | Schedules 4 & 5Part 7 |

**Option 1d: EvO Conversion Training Delivery**

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Training delivery | The Contractor shall deliver T3 Training on the BMA Solution, in support of any wider Conversion training package for both the EvO System and MORPHEUS System. The Training will be delivered in a manner compliant with the TNA, Training Working Group direction and Training Plan. Training Delivery shall include the full DSAT process of Analysis, Design, delivery (physical BMA Instruction) and Evaluation and be compliant with JSP 822.   | BMA Conversion Training  |  | Schedules 4 & 5Part 7 |

**OPTION 2 A-D & 5A: In-Service Software Support (Core Capability) and Enhanced Dismount Logistic Support**

The requirements detailed at paras 9.2.1 to 9.2.4 below are a year on year extension ***REDACTED*** (***REDACTED*** inclusive represented as 5A and 2A-D respectively). The exception to this is that those requirements detailed at paras 9.2.5 to 9.2.7 are only applicable to ***REDACTED***.

| Serial(a) | Task(b) | Description€ | Output(d) | Date***REDACTED***€ | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
| 1.
 | Software Service Management (help desk) | The Contractor shall provide BMA Helpdesk support for the BMA during fielding and through life.The Contractor BMA helpdesk shall operate 0800-1700 Monday to Friday excluding British Bank Holidays. The Contractor shall be able to increase the period of helpdesk service as required by the Authority and with 30 days’ notice.The Contractor BMA Helpdesk shall respond to the Authority or designated EvO/MORPHEUS service management provider, e.g. TP. The following functions and Service Levels shall apply to the BMA Contractor:* Provide telephone and email helpdesk capabilities.
* Provide meaningful response within 4 hours of receipt of call/email.
* Allocate and communicate to the requestor, a unique incident ID which is to be used to track all incidents/requests to completion.
* Maintain a log of all Helpdesk requests and provide access to the Authority and designated EvO/MORPHEUS service management provider.
* Categorise calls/emails as either: Incidents, Requests for Information (RFI) or Problems.
* Resolve Incidents within # Working Days.
* Resolve Problems within # Working Days. Resolution times greater than those stated shall be agreed with the Authority in advance of expiry of the stated durations.
* Maintain a Knowledgebase, accessible by Helpdesk agents and made available on a SWE, to be accessible by the Authority.
* Resolved problems to be accompanied with relevant VDD.
 | Helpdesk Support within required capability. VDD Document for changes and fixes done. |  | Compliance with KPIs. |
|  | Security Whole Life Support | The Contractor shall implement and conduct Vulnerability Management Procedures on the BMA in accordance with the Software Development Plan (SDP). The Contractor shall provide details of any vulnerabilities identified in the BMA to the Authority; actively manage all vulnerabilities which are identified through the Vulnerability Management Procedure or any other means; and provide patches remedying the vulnerabilities to the Authority in a timely manner. The Contractor shall define the timescales within their SDP, but typically; ‘Critical’ patches made available within 2 calendar days, ‘Important’ patches within 7 calendar days, ‘Other’ patches within 15 calendar days).    | Vulnerability Report in accordance with SDP |  | Schedules 4 & 5Part 7 |
|  | Training Whole Life Support to TNA | As a result of any change made during through life support for the BMA, the Contractor shall amend, update, modify, reissue and redeliver the Training Needs Analysis and Report Set, whenever any changes, amendments, modifications or updates are made to the BMA solution. | Updated BMA TNAcompliant with DSAT Report Format |  | Schedules 4 & 5Part 7 |
| 1.
 | Training Whole Life Support to Training Materials | As a result of any change made during through life support for the BMA, the Contractor shall amend, update, modify, reissue and redeliver Training Materials, whenever any changes, amendments, modifications or updates are made to the BMA solution. | Updated Training Material |  | Schedules 4 & 5Part 7 |
| 1.
 | Helpdesk support | Uplift the support (if applicable) to support the increased user base. | Extended Support |  | Established KPIs |
|  | Training Whole Life Support to TNA | During the course of through-life support for the BMA, the Contractor shall amend, update, modify, reissue and redeliver the Training Needs Analysis, whenever any changes, amendments, modifications or updates are made to the BMA solution. | Updated BMA TNA |  | DSAT Report FormatSchedules 4 & 5Part 7 |
| 1.
 | Training Whole Life Support to Training Materials | During the course of through-life support for the BMA, the Contractor shall amend, update, modify, reissue and redeliver Training Materials, whenever any changes, amendments, modifications or updates are made to the BMA solution.  | Updated Training Material |  | Schedules 4 & 5Part 7 |

**OPTION 3 A-D & 6A: Development Services**

The requirements detailed below are a year on year extension from ***REDACTED*** to ***REDACTED*** (***REDACTED*** to ***REDACTED*** inclusive represented as 6A and 3A-D respectively).

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Development Services | The Contractors shall maintain or procure the capability to be able to conduct Development Services after completion of the initial BMA solution.The Contractor shall be able to deliver 1 (one) High Complexity Change, 3 (three) Medium Complexity Changes and 8 (eight) Low Complexity Changes per annum for the Firm Price. As a result of any change via developmental services updated artefacts for cross Defence Lines of Development will be required including as a minimum Safety, Security, Training and ILS. | Software Drop  |  | Schedule 4 & 5 Parts 2-6  |
|  | Training Whole Life Support to TNA | As a result of any change made via developmental services for the BMA, the Contractor shall amend, update, modify, reissue and redeliver the Training Needs Analysis and Report Set, whenever any changes, amendments, modifications or updates are made to the BMA solution. | Updated BMA TNAcompliant with DSAT Report Format |  | Schedule 4 & 5Part 3 |
|  | Training Whole Life Support to Training Materials | As a result of any change made via developmental services for the BMA, the Contractor shall amend, update, modify, reissue and redeliver Training Materials, whenever any changes, amendments, modifications or updates are made to the BMA solution. | Updated Training Material |  | Schedule 4 & 5Part 3 |

**OPTION 4: Enhanced Dismount**

This comprises a number of sub options (Development, Scaling and Support) as described below.

**Option 4a: Enhanced Dismount Development**

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Development | The Contractor shall design, develop and deliver a Dismounted BMA Capability that is capable of operating on a handheld mobile device in the Dismounted Operational Environment and shall be compatible with the BMA solution. | Enhanced Dismount Functionality |  | Compliance with ITEAP |
|  | Documentation | The Contractor shall update the Software Design Document to reflect the Enhanced Dismounted solution. | SDD |  | Schedules 4 & 5Part 7(Aligned with agreed product description for the SDD) |
|  | Enhanced Dismount Integration Support | The Contractor shall be prepared to provide technical and manpower support to trials for the integration with hardware suitable for an Enhanced Dismounted solution.The Integration Support shall involve, as a minimum, the following activities:* attendance to the System Integrator/REDACTED site, with a current version of the Enhanced Dismounted solution on a Portable Development Environment, in order to assess and rectify, where possible, technical issues during the integration of the Enhanced Dismounted solution with the BMA and EvO System; and
* providing guidance and assistance to the Authority and TP during the integration of the Enhanced Dismounted solution with the BMA and into the EvO System.
 | Attendance and Participation at Integration events |  | Monthly Report |
|  | Enhanced Dismount Integration Support | The Contractor shall update the Contractor’s ITEAP to reflect the Enhanced Dismounted solution. | Updated ITEAP |  | Schedules 4 & 5Part 7 |
|  | Enhanced Dismount Integration Support | The Contractor shall update the Contractor’s Test and Acceptance Plan to reflect the Enhanced Dismounted solution. | Updated Test and Acceptance Plan |  | Schedules 4 & 5Part 7 |
|  | Enhanced Dismount Integration Support | The Contractor shall create additional Architecture Test Cases to reflect the Enhanced Dismounted solution. | Updated Architecture Test Cases |  | Schedules 4 & 5Part 7 |
|  | Enhanced Dismount Integration Support | The Contractor shall create additional Architecture Test Procedures to reflect the Enhanced Dismounted solution. | Updated Architecture Test Procedures |  | Schedules 4 & 5Part 7 |
|  | Enhanced Dismount Integration Support | The Contractor shall create new Test Cases to reflect the Enhanced Dismounted solution. | Updated Test Cases |  | Schedules 4 & 5Part 7 |
|  | Enhanced Dismount Integration Support | The Contractor shall create new Test Acceptance Cases to reflect the Enhanced Dismounted solution. | Updated Test Acceptance Cases |  | Schedules 4 & 5Part 7 |
|  | Enhanced Dismount Integration Support | The Contractor shall create new Test Procedures to reflect the Enhanced Dismounted solution. | Updated Test Procedures |  | Schedules 4 & 5Part 7 |
|  | Enhanced Dismount Integration Support | The Contractor shall update VVRM as and when dictated by the Test and Acceptance Plan | VVRM |  | Schedules 4 & 5Part 7 |
|  | User Stories | The Contractor shall develop and deliver, in consultation with the Authority, a set of User Stories, giving due regard to the other BMA User Stories, for the Enhanced Dismounted BMA Capability to cover the following:* Personal Location Information (PLI) from both users with and without end user devices, where the radio can provide native PLI;
* messaging both text and imagery;
* Tactical Mark up and Overlay pertinent to Quick Battle Orders;
* navigation for individual commanders, bearing and distance to selected terrain feature or waypoint;
* Casualty Identification for CASEVAC and Casualty management; and
* Network Status.
 | Enhanced Dismounted User Stories |  | Schedules 4 & 5Part 7 |
|  | Scaling | The Contractor shall ensure the BMA remains useable within a tactical context at Company Scaling (notional ORBAT of ~120 users) ensuring functionality is not degraded at this level of scaling.  | Compliant Enhanced Dismount Capability |  | Schedules 4 & 5Part 7 |
|  | Interoperability | The Contractor shall ensure the Enhanced Dismount BMA environment is interoperable at all levels (HQ, Mounted and Dismounted) with the EvO System.  | Compliant Enhanced Dismount Capability |  | Schedules 4 & 5Part 7 |
|  | Security Whole Life Support | The Contractor shall implement and conduct Vulnerability Management Procedures on the Enhanced Dismounted solution ensuring regression testing of the BMA also.The Contractor shall provide details of any vulnerabilities identified in the BMA and Enhanced Dismounted solution to the Authority; actively manage all vulnerabilities which are identified through the Vulnerability Management Procedure or any other means; and provide patches remedying the vulnerabilities to the Authority in a timely manner.  | Vulnerability Report in accordance with SDP |  | Schedules 4 & 5Part 7 |
|  | Training Needs Analysis | The Contractor shall amend, update, modify, reissue and redeliver the Training Needs Analysis, if the Enhanced Dismount capability is added. | Updated BMA TNA compliant with DSAT Report Format |  | Schedules 4 & 5Part 7 |
|  | Training Material | The Contractor shall amend, update, modify, reissue and redeliver Training Materials. if the Enhanced Dismount capability is added  | Updated BMA Training Material |  | Schedules 4 & 5Part 7 |
|  | Enhanced Dismount Testing | The Contractor shall provide support to the Enhanced Dismount Solution System trial event. The support to the trial event shall involve, as a minimum, the following activities:* attendance to the event, at a UK location, with a current version of the Enhanced Dismount solution on a Portable Development Environment, in order to assess and rectify, where possible, technical issues during the trial event; and
* providing guidance and assistance to the Authority and Authority staff on the usage of the Enhanced Dismount solution during the System trial event.
 | Technical Issue Resolution during Enhanced Dismount solution system trial |  | Schedules 4 & 5Part 7 |

**Option 4b: Enhanced Dismount Support**

**Option 4bi: Not Used**

**Option 4bii: User Trials**

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Dismounted Environment | The Contractor shall be prepared to provide technical and manpower support to User trials.The support to User trialling events shall involve, as a minimum, the following activities:* attendance to the trial, at a commercial site or military training area in the UK, with a current version of the Enhanced Dismount solution on a Portable Development Environment, in order to assess and rectify, where possible, technical issues during the trial; and
* providing guidance and assistance to the Authority and Authority staff on the usage of the Enhanced Dismounted solution during the trial event.
 | Attendance and Participation at trial events |  | Monthly Report |

**Option 4biii: OFT Training**

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Dismounted OFT Training delivery | The Contractor shall deliver training for the purposes of an Operational Field Trial on the Dismounted BMA Solution, in support of any wider training package for both the EvO System and/or the MORPHEUS System.  The training shall be delivered to the participants of the OFT in accordance with the TNA and OFT Plan. Training Delivery shall include the full DSAT process of Analysis, Design, delivery (physical BMA Instruction) and Evaluation and be compliant with JSP 822.  | BMA OFT Training delivery for Enhanced Dismounted functionality  |  | Schedules 4 & 5Part 7 |

**Option 4biv: Enhanced Dismount User Training**

| Serial(a) | Task(b) | Description(c) | Output(d) | Date***REDACTED***(e) | Assurance/Acceptance Criteria(incl format)(f) |
| --- | --- | --- | --- | --- | --- |
|  | Dismounted User Training delivery | The Contractor shall deliver T3 Training on the Dismounted Solution, in support of any wider training package for the BMA, the EvO System and MORPHEUS System. The Training will be delivered in a manner compliant with the TNA, Training Working Group direction and Training Plan. Training Delivery shall include the full DSAT process of Analysis, Design, delivery (physical BMA Instruction) and Evaluation and be compliant with JSP 822.  | BMA User Training delivery for Enhanced Dismounted functionality  |  | Schedules 4 & 5Part 7 |

**Option 4 C-F: Not Used**

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KEY DELIVERABLES

| CDRL #(a) | Name(b) | SOR Linkage(c) |
| --- | --- | --- |
|  | Project Management Plan (PMP) | §7.1 |
|  | Project Schedule | §7.2 |
|  | Risk Register | §7.8 & §7.10 |
|  | Dependency Register | §7.9 |
|  | Master Data and Assumptions List (MDAL) | §7.11 |
|  | Actions Log | §7.12 |
|  | Configuration Management Plan (CMP) | §3.4 |
|  | Quality Assurance Plan (QAP) | §7.15 |
|  | Technical Documentation Management Plan (TDMP) | §7.14 |
|  | Software Design Document (SDD) | §1.2 |
|  | Version Description Document (VDD) | §2.8 |
|  | Integrated Test Evaluation and Acceptance (ITEAP) | §2.14 |
|  | Test & Acceptance Plan (T&AP) | §2.15 |
|  | Test Cases | §2.19 |
|  | Acceptance Test Cases | §2.20 |
|  | Test Procedures | §2.22 |
|  | Pre-Integration Test Report | §2.23 |
|  | Post Integration Acceptance Report | §2.24 |
|  | Verification & Validation Requirements Matrix (VVRM) | §2.25 |
| 1.
 | Training Needs Analysis Report Set (TNR) | §4.1 |
|  | Training Material | §4.4 |
|  | Security Impact Analysis (SIA) Report | §6.3 |
|  | Initial Software Drop  | §2.5 |
|  | Common Services Drop  | §2.5 |
|  |  Full Functionality Software Drop | §2.5 |
|  |  EvO Baseline Software Drop | §2.5 |
|  | Openness Test Results | §2.26 |
|  | Qualification Report/Certificate of Conformance | §7.2 |
|  | Software Support Plan | §2.12 |
|  | Human Factors Integration Plan | §3.5 |
|  | HF Style Guide | §3.7 |
|  | Programmable Elements Safety & Environment Management Plan (PESMP) | §5.1 |
|  | Safety Case (S&EC) | §5.4 |
|  | Safety & Environment Legislation Tracker | §5.8 |
|  | Safety & Environment Action Tracker | §5.10 |
|  | Hazard Log (HL) | §5.3 |
|  | Integrated Support Plan (ISP) | §3.3 |

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OPENNESS TESTS

| ID(a) | Attribute(b) | Test(c) | Question(d) | Result A(e) | Outcome A(f) | Result B(g) | Outcome B(h) |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1.1.1 | Openness (Partitioning) | Market-alignment of partitioning | **Is the partitioning of the Architecture aligned with market offerings?** | TRUE | **Pass:** The partitioning of the Architecture is aligned with the market. | FALSE | **Fail:** The partitioning of the Architecture could be altered to improve alignment with the market. |
| 3.1.1 | Openness (Components) | Delamination | **Does the component connect directly to another component without using a middleware layer?** | FALSE | **Pass:** All the components connections to other components go through the middle layer | TRUE | Progress to the next question in the test. |
| 3.1.2 | Openness Components) | Delamination | **Is the connection between two infrastructure components?** | TRUE | **Pass:** Infrastructure to infrastructure interface (e.g., headphone jack, OS device driver) | FALSE | Progress to the next question in the test. |
| 3.1.3 | Openness (Components) | Delamination | **Is the connection between an application component and infrastructure software component providing a common support service (e.g., OS, security services)?** | TRUE | **Pass:** Application connecting directly to common supporting infrastructure service | FALSE | Progress to the next question in the test. |
| 3.1.4 | Openness (Components) | Delamination | **Is the connection between an application component and a common application service that supports multiple components (e.g., GIS)** | TRUE | **Pass**: Application connecting directly to common supporting application service | FALSE | **Fail delamination test:** Direct connection between unsuitable components (e.g., application to application, application to infrastructure hardware |
| 3.2.1 | Openness (Components) | Modularity | **Is the component functionally discrete?** | TRUE | **Pass:** Responsibility of the component is clear and the impact of replacement known | FALSE | **Fail modular test:** Responsibility of the component is unclear, therefore replacement may not provide full required functionality |
| 3.2.2 | Openness (Components) | Modularity | **Has the component been detailed and documented?** | TRUE | **Pass:** Component detail can be shared and easily understood by other parties | FALSE | **Fail modular test:** Component detail cannot be shared and easily understood by other parties |
| 3.3.1 | Openness (Components) | Duplication | **Does the component duplicate any functionality also provided by another component?** | FALSE | **Pass:** Unique functionality provided by the component | TRUE | **Fail duplication test:** Duplicated functionality increases complexity of the system |
| 3.4.1 | Openness (Components) | Interface definition | **Are the component’s interfaces built to a recognised industry standard (e.g., de jure standard, de facto standard)?** | TRUE | **Pass:** A credible vendor will find standard interfaces usable | FALSE | Progress to the next question in the test. |
| 3.4.2 | Openness (Components) | Interface definition | **Is there a standard interface that is close enough that it could be used instead of this interface?** | TRUE | **Fail interface definition test:** No clear rationale for not applying a standard interface | FALSE | Progress to the next question in the test. |
| 3.4.3 | Openness (Components) | Interface definition | **Is this non-standard interface used elsewhere (e.g., is there a reference implementation)?** | TRUE | **Pass:** Interface has been implemented elsewhere, demonstrating usability | FALSE | Progress to the next question in the test. |
| 3.4.4 | Openness (Components) | Interface definition | **Has the detailed definition been clearly defined and approved by MOD?** | TRUE | **Pass:** Interface is defined sufficiently that a credible vendor will find it usable | FALSE | **Fail interface definition test:** It is not practical for a vendor to use an interface that is not fully defined |
| 3.5.1 | Openness (Components) | Interface usability | **Are the component’s interfaces IPR free?** | TRUE | **Pass:** No IPR restriction to the use of the interface | FALSE | Progress to the next question in the test. |
| 3.5.2 | Openness (Components) | Interface usability | **Are there commercial barriers for the MOD and its vendors to use the interface?** | FALSE | **Pass:** Interface can be used freely | TRUE | Progress to the next question in the test. |
| 3.5.3 | Openness (Components) | Interface usability | **Can the interface be used for a reasonable cost?** | TRUE | **Pass:** Interface can be used without further negotiation and at a reasonable price | FALSE | **Fail interface usability test:** Use of the interface will require negotiation which may take a long period of time and incur fees |
| 3.5.4 | Openness (Components) | Interface usability | **Is the component export and trade compliance free (e.g., ITAR free, EAR free)?** | TRUE | **Pass:** Component information can be shared to enable connection without external authority approval | FALSE | **Fail interface usability test:** Component requires approval from an external authority to share information to enable connection |
| 3.6.1 | Openness (Components) | Potential market | **Are there two or more independent vendors that provide the component or service?** | TRUE | **Pass:** There is an existing market for the item | FALSE | Progress to the next question in the test. |
| 3.6.2 | Openness (Components) | Potential market | **Are there credible vendors, including in another industry, that provide a similar component or service (e.g., civilian equivalent to the component)?** | TRUE | **Pass:** There could feasibly be a market if a vendor switched industry | FALSE | Progress to the next question in the test. |
| 3.6.3 | Openness (Components) | Potential market | **Does the MOD agree that the item is specialised (i.e., changing the component would not result in passing one of the two above tests)** | TRUE | **Pass:** Specialised item without a market | FALSE | **Fail potential market test:** component could be changed to attract multiple suppliers |

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SOR DEFINITIONS

| Item(a) | Description(b) |
| --- | --- |
| Binaries | Compiled computer programs/applications or binary files including any other type of file content such as images, sounds, or compressed versions of other files. |
| BMA Functions | Common Operating Picture/GIS Application, Mission Planning & Execution Application, ORBAT/Taskorg Editor, GIS Service, Symbology Service, ORBAT/Taskorg Service (dependent upon solution) |
| Burn Up (chart) | A burn up chart tracks progress towards a project’s completion. In the simplest form of burn up chart there are two lines on the chart: 1. A total work line (the project scope line) 2. A work completed line |
| Burn Down (chart) | A burn down chart is a plot of work remaining to reach a given goal on the vertical axis, and time on the horizontal axis. Each point on the chart shows how much work was left to do at the end of that day (or week, month or another time period). |
| Business Logic Processes | Business logic describes the sequence of operations associated with data in a system to carry out the business rule. |
| Data Storage Structure | Data is stored on disk in one of a number of forms, including ordered/unordered flat files, ISAM, heap files, hash buckets, or B+ trees mechanism that data is stored by the system |
| ITEAP | The Integrated Test, Evaluation and Acceptance Plan is a document which describes, at a high level, the activities, processes and events by which the BMA solution will be tested and evaluated throughout its development, to collect the evidence necessary to allow the Authority to accept the BMA from the contractor, to accept its integration into the wider EvO system, and ultimately, to accept the BMA into active service. |
| Lean | In terms of leans suite of applications, lean represents applications that are conscious of the bandwidth constrained environment. |
| Master Data and Assumptions List (MDAL) | A document (commonly a table) detailing the decisions and assumptions that are applicable to a proposal. |
| Portable Development Environment | A portable software development environment installed on a portable device such as laptop. |
| Project Management Plan (PMP) | “Project Management Plan” means the plan setting out how and when the Contract Programme will be delivered referred to in, and which shall meet the requirements of §7.1. |
| Security Governance Framework | Contains an information security risk management methodology, policies covering key aspects of information security (including how sensitive data is managed), and a list of security roles and responsibilities within the organisation.  |
| Severity Level – Critical | Failure of a key element of the system that does not allow the system to perform and for which no work-around is available (to be completed at Contract Finalisation) |
| Severity Level – Major | A Major operational process fails frequently and no workaround is available.  As such, the system remains functional but may generate a high workload on the operator. (to be completed at Contract Finalisation) |
| Severity Level – Moderate | A Minor Operational process affected but can be rectified by using either a temporary or permanent documented and agreed work-around.  As such, the system remains functional with minimal impact on the operator. (to be completed at Contract Finalisation) |
| Severity Level – Minor | Minor operational issues that results in inconvenience or annoyance to the user but does not affect a required essential capability. |
| Severity Level – Unclassified  | Left as “Unclassified” for Observations only. If the observation is changed to a defect, then the Severity needs to be entered. |
| Technical Documentation Management Plan (TDMP) | “Technical Documentation Management Plan (TDMP)” means the plan referred to in, and which shall meet the requirements of §7.14. |
| Training Needs Analysis Steering Group (TNASG) | The TNASG is a dedicated steering group representing training requirement stakeholders across the 3 Front Line Commands, which governs the TNA and ensures the validity of the TNA process and outputs. The TNASG manages the TNA via the production and maintenance of a Training Support Plan (TSP). |
| Training Working Group (TWG) | The TWG is a dedicated group representing certain DLOD stakeholders (e.g. training, equipment, personnel, doctrine), training delivery organisations and training support organisations. The working group governs the training solution. Its members have the authority to make decisions and take actions. Its purpose is to provide direction, resolve issues and provide a representation for training on the Change Integration Working Group (CIWG). |
| User Interface Artefacts | User interface (UI) prototyping is an iterative analysis technique in which users are actively involved in the mocking-up of the UI for a system. UI prototypes have several purposes: As a requirements artefact to initially envision the system. |
| Vulnerability Management Procedures | Vulnerability management is the cyclical practice of identifying, classifying, remediating and mitigating vulnerabilities. Vulnerability management procedures should include details of how automated testing is performed in the context of software development and maintenance, in order to identify vulnerabilities.  |

1. Entire schedules apply unless specific Part(s) is/are detailed [↑](#footnote-ref-2)