Serapis Tasking Form

Tasking Form Part 1: *(to be completed by the Authority's Project Manager)*

To:	Lot 4 QinetiQ Plc	**From:**	The Authority, Dstl
Any Task placed as a result of your quotation will be subject to the Terms and Conditions of Framework Agreement Number: LOT 4 DSTL/AGR/SERAPIS/AII/01			
VERSION CONTROL			
REV3 07/09/2021			
REQUIREMENT			
Proposal Required by:	[17/09/2021]	**Task ID Number:**	AII80
The Authority Project Manager:	[REDACTED]	**The Authority Technical Point of Contact:**	[REDACTED]
Task Title:	AII 80		
Required Start Date:	24/09/2022	**Required End Date:**	31/03/2022
Requisition No:	[1000167809]	**Budget Range**	Up to £133k Man Support
TASK DESCRIPTION AND SPECIFICATION			
Serapis Framework Lot	☐ Lot 1: Collect ☐ Lot 2: Space systems ☐ Lot 3: Decide ☒ Lot 4: Assured information infrastructure ☐ Lot 5: Synthetic environment and simulation ☐ Lot 6: Understand		

Statement of Requirements (SOR)

Background

The future battlespace will become increasingly dynamic and complex driven by greater diversity of threats and actors operating not just in physical domains, but also in virtual and cognitive domains. Military operational leadership will have to interact with allies and non-governmental organisations within a full spectrum approach. These factors, combined with the increasing use of technology, places great demands on a C2 system's ability to generate decisions and actions at pace.

C2 is the pre-eminent joint function and therefore is at the forefront of addressing these challenges. There is a need to transform C2 processes and the application of AI/ML technologies is a potential route to achieving this. In particular:

- *In enabling specialised C2 functions to run at machine speed, enabling time critical responses to be made operationally3.*

- *In undertaking generic C2 tasks to release human capital within a HQ, such as analysis, sensemaking, planning and decision-making.*

The Machine Speed C2 (MSC2) project of the Artificial Intelligence (AI) Programme aims to exploit a wide range of Generation-after-Next AI & ML technologies. This will be enabled by a scalable & adaptable data architecture to significantly enhance C2 activities as well as allowing deployed & other Headquarters to anticipate & adapt faster than adversaries.

Work Package 2 (WP2) of the MSC2 project, titled "Enabling Architectures", aims to design, develop and demonstrate a C2 data architecture that will enable the future use of AI whilst being evergreen, modular and open in nature. The architecture will better enable the C2 community to make use of the rich data holdings available elsewhere across the wider MOD enterprise but to also to better utilise innovative AI tools to make faster and better decisions.

WP2 comprises the following technical tasks which will inform the innovative architecture, these are:

Task 1 - C2 Data Characterisation: This task will produce of comprehensive view of:

- The C2 activities and functions could potentially be supported by AI/ML technologies.
- The required data C2 and AI datasets

These will provide an understanding of how the data enterprise will need to change to meet C2 strategic goals. It is expected that this will leverage existing work undertaken across MOD and CSA programme. in particular the C2 spearhead.

Task 2 - AI enabled C2 Challenge Development: This task will identify current industry and academic approaches to data architecture design and undertake rapid prototyping to understand their suitability for supporting the C2 community.

The output from both of these tasks will inform the future architecture design.

WP2 also includes the following task to illustrate the progress of our work and demonstrate its potential.

Task 3 - Architecture Demonstration: This task will look to plan and deliver an Initial lab scale demonstration of at least one novel approach applied to C2 data at a storyboard event

Requirement for the Technical Support to WP2

The supplier is required to provide a suitably qualified task lead, or small team, to define the detailed scope and outputs of WP2 and to identify those elements of the Serapis Lot 4 supplier base required to support delivery.

The role, with required outputs, of the task lead, or small team, will be to lead on the following tasks:

Management

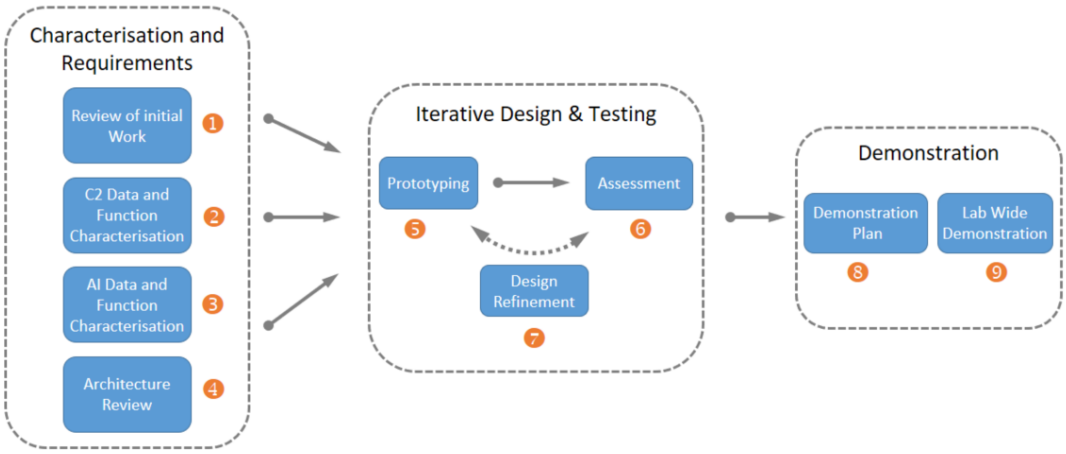
The management and administrative tasks are described below:

1. Manage and deliver a start up meeting with the Dstl TP and PTA present
   - **Output:** Meeting and presentation summarising initial thoughts for delivering support.
2. In collaboration with the Dstl TP and other selected MOD SMEs, generate a first level decomposition of WP2 Tasks 1 -3 to include regular sprint cycle for architecture design and prototyping where outputs from Task 1 feed into Task 2.
   - **Output:** Technical report summarising proposed approach to tasks 1, 2 & 3
3. With input from the Dstl TP produce an SOR(s) for release to the supplier base to address at least the early sprint cycles, recognising that an additional supplier call may be required at later stages.
   - **Output:** Serapis Tasking form
4. With input from the Dstl TP conduct a Lot 4 supplier base review to assess the health of expertise available to support the work of WP2.
   - **Output:** The selection of suitable contractors to support WP2 of the MSC2 project
5. Select suitable suppliers.

- **Output:** The selection

Technical

The technical tasks and approach as summarised below:



Characterisation \ Requirements Gathering

1. Conduct scoping review to identify existing work across MOD and wider industry/academia that could be applied in this space.
   - **Output:** A memo summarising existing work across MOD and wider industry that could be applied in this space
2. Conduct a study to identify and characterise key C2 data holdings and functions
   - **Output:** A report the data characteristics and key functions of the current C2 estate .It is expected that this would leverage existing work carried out elsewhere across the lab including the C2 Spearhead and outputs form WP3 of the MSC2 project.
3. Conduct study a study to identify and characterise key AI data requirements and functions
   - **Output:** A report summarising the delta between the current data estate and the future data and architecture requirements for the use of AI in C2. It is expected that this would that this would leverage existing work carried out elsewhere existing work carried out by WP1 of the MSC2 project.
4. Conduct a literature review of publically available studies that have addressed issues relating to the applications of novel data architectures (or similar activities in non-military organisations).
   - **Output:** A report on novel architectural approaches utilised elsewhere across industry or academia that could be applied to C2. This should define the criteria for achieving a good architecture . It should then summarise each of the candidate approaches and provide an initial assessment of how they meet the criteria and their potential suitability for use in the C2 domain.

Iterative Design and Testing

5. Conduct rapid prototyping and assessment of appropriate architectural designs
   - **Output:** A memo summarising the iterative plan for testing assessment and refining of prototype architecture designs.
   - **Output:** Undertake work to develop a working porotype of the chosen design
6. Conduct assessment of the performance of each architectural design
   - **Output:** A Report summarising how the design performed and should include a summary of the positives negative aspects of the design and the recommended next steps e.g. modify the design or determine it is suitable.
7. Design Refinement
   - **Output:** Produce refined/new architecture design ready for prototyping and assessment

Demonstration

8. Demonstration Planning
    - **Output:** A Memo summarising the detailed plan for the lab wide demonstration of at least one novel approach applied to C2 data at the storyboard event
9. Demonstration of Recommended design
    - **Output:** Undertake work to deliver an Initial lab scale demonstration of at least one novel approach applied to C2 data at the storyboard event

Procurement Strategy

☒ Lot Lead to recommend ☐Single Source / Direct Award

Pricing:

☐ Firm Pricing ☒ Ascertained Costs* ☐ Other*

Firm Pricing shall be in accordance with DEFCON 127 and DEFCON 643

Ascertained Costs shall be in accordance with DEFCON 653 or DEFCON 802.

*only at Authority's discretion

Task IP Conditions

Task IP Conditions (Follow the NIPPY guide to identify your information and IP requirements for each deliverable)	**Summary of the Authority's rights in foreground IP (IP generated by the supplier in performance of the contract)**
DEFCON 703 ☐	Vests ownership with the Authority
DEFCON 705 Full Rights ☒	Enables MOD to share in confidence as GFI or IRC under certain types of agreements. Can be shared in confidence within UK Government.
OTHER IP DEFCONS: 14* ☐, 15* ☐, 16* ☐, 90* ☐, 91* ☐, 126* ☐	Generally only suitable for deliverables at TRL 6 and above.
BESPOKE IP Clause ☐ *	Details to be added and agreed by IP Group

* Do not use without IPG advice and approval

Please state in this text box if MOD or the customer has a requirement a) that one or more Other Government Departments is able to share confidentially with their own suppliers, b) to publish but you do not think there is a requirement to own or control the deliverable, or c) to share under a procurement Memorandum of Understanding (MOU).*

*If any of these three issues applies, please contact IPG for advice before completing this form. *Listing research MOUs is not required, but can be a helpful courtesy to the supplier.*

DELIVERABLES

Ref	Title	Due by	Format	TRL	Expected classification (subject to change)	Information required in deliverable	IPR DEFCON
MD-1	*Requirement 1: Start-up meeting and presentation*	*2 weeks after contract award*	*Meeting & Presentation*		*Official*	*Presentation*	*705*
MD-2	Technical report summarising high level proposed approach to tasks 1, 2 & 3	*Within 1 mth of contract placement*	*Report*		*Official*	*Summary report*	*705*
MD-3	Serapis Tasking forms for key activities in WP 2	*Within 1 mth of contract placement*	*Serapis Tasking form*		*Official*		*705*
MD-4	Lot 4 supplier base review to assess the health of expertise available to support the work of WP2	*Within 1 mth of contract placement*	*Report*		*Official*		*705*
MD-5	The assessment and selection of Key Suppliers for Technical work on WP2	*Within 1 mth of contract placement*	*Report*				
TD-1	Summary of existing work across MOD and wider industry that could be applied in this space	*Within 1 mth of contract placement*	*Memo*		*Official*		*705*
TD-2	Characterisation of Key C2 data and Functions	*Within 2 mths of contract placement*	*Report*		*Official-Sensitive*		*705*
TD-3	Characterisation of Key C2 data and Functions		*Report*		*Official*	*TBC*	*705*
TD-4	summarising the delta between the current data estate and the future data and		*Report*		*Official*	*TBC*	*705*

	architecture requirements for the use of AI in C2						
TD-5a	plan for undertaking the design building assessment and refining of prototype architecture designs		*Report*				
TD5-b	*Initial Architecture design*						
TD-6	*Architecture Performance Assessment*						
TD-7	*Iterative Architecture Design*	*First Architecture design Design by ?? subsequent onse within 1 month of previous design assessment*					
TD-8	*detailed plan for the lab scale demonstration of at least one novel approach applied to C2 data at the storyboard event*	*End of Mar '22 (or at least 2 months prior todemonstration*	*Memo*				
TD-9	A lab scale demonstration of at least one novel approach applied to C2 data at the storyboard event	*End of Jun'22*	*Demonstration*				
TD-10							

DELIVERABLE: ACCEPTANCE / REJECTION CRITERIA

Unless otherwise stated below, Standard Deliverable Acceptance / Rejection applies. This is 30 business days, in accordance with DEFCON 524 Rejection, and DEFCON 525 Acceptance.

Standard Deliverable Acceptance / Rejection:-

Yes ☒ (DEFCON 524 Rejection, and DEFCON 525 Acceptance)

No ☐ (if no, please state details of applicable criteria below)

Deliverable Acceptance / Rejection Criteria:-

If there are any other specific acceptance/rejection criteria you would like to apply to any of the deliverables, please state them here.

Government Furnished Assets (GFA)

ISSUE OF EQUIPMENT/RESOURCES/INFORMATION/FACILITIES (*if not applicable, delete table and insert "None" in this text box)*

None

QUALITY STANDARDS

☒ **ISO9001** (Quality Management Systems)

☐ **ISO14001** (Environment Management Systems)

☒ **ISO12207** (Systems and software engineering — software life cycle)

☐ **TickITPlus** (Integrated approach to software and IT development)

☐ **Other:** (Please specify in free text below)

SECURITY CLASSIFICATION OF THE WORK

The highest classification of this SOR

OFFICIAL ☐ OFFICIAL-SENSITIVE ☐ SECRET ☐ TOP SECRET ☐ STRAP ☐ SAP ☐

The highest expected classification of the work carried out by the contractor

OFFICIAL ☐ OFFICIAL-SENSITIVE ☐ SECRET ☐ TOP SECRET ☐ STRAP ☐ SAP ☐

The highest expected classification of Deliverables/Output

OFFICIAL ☐ OFFICIAL-SENSITIVE ☐ SECRET ☐ TOP SECRET ☐ STRAP ☐ SAP ☐

Is a Security Aspects Letter (SAL) required? *(A Security Aspects Letter (SAL) will be required for each Task above Official-Sensitive and above)*

Yes ☐ No ☐

TASK CYBER RISK ASSESSMENT. *(In accordance with DEF STAN 05-138 and the* Risk Assessment Workflow)

Cyber Risk Level	[REDACTED]
Risk Assessment Reference	[REDACTED]

ADDITIONAL TERMS AND CONDITIONS APPLICABLE TO THIS CONTRACT

Please ensure all completed forms are copied to DSTLSERAPIS@dstl.gov.uk when sending to the Lot Lead.

Tasking Form Part 2: *(To be completed by the Lot Lead)*

To: The Authority	From: The Lot Lead

Proposal Reference **QINETIQ/21/03959** **(attached)**

Delivery of the requirement:

The proposal <u>shall</u> include, but not be limited to:

- A full technical proposal that meets the individual activities that are detailed in Statement of Requirements (Part 1 to Tasking Form).
- Breakdown of individual Deliverables, with corresponding Intellectual Property rights applied.
- Breakdown of Interim Milestone Payments, with corresponding due dates.
- A work breakdown structure/project plan with key dates and deliverables identified.
- A list of required Government Furnished Assets from the Authority, including required delivery dates.
- A clear identification of Dependencies, Assumptions, Risks and Exclusions which underpin your Technical Proposal.
- Sub-Contractors Personnel Particulars Research Worker Form and security clearances (if applicable)

COMMERCIAL

[REDACTED]

Please note that this proposal is for the **<u>Management Support</u>** only (referred to as Management bullet points 1-5), and that the Technical Support is now being submitted under AII104 and is excluded from this task.

This proposal has been prepared against our current knowledge of the Authority's requirement on an ascertained cost basis. Recognising that we are substantially under the original budget, QinetiQ would be willing to accept a Purchase Order for the full amount, if this was something the authority wanted to consider, in order to support additional work.

[REDACTED]

Deliverables D3 and D4 in the technical proposal will be delivered as DEFCON 703.

PRICE BREAKDOWN

You are to use the costs detailed in Item 2 Table I in the Schedule of Requirement and at Annex E Table 2 of the Serapis Framework Agreement. Please also provide a price breakdown which should include, but is not limited to: Lot Lead Rates, Sub-contractors costs and rates, travel and subsistence. In support of your Proposal you are requested to provide clear details of all Dependencies, Assumptions, Risks and Exclusions that underpin your price.

Offer of Contract: *(to be completed and signed by the Contractor's Commercial or Contract Manager)*

Total Proposal Price in £	£93,702.71 for the core work. Options for future years, are detailed in the summary table.		(ex VAT)
Start Date:		**End Date:**	

Lot Leads Representative	Name	[REDACTED]
	Tel	[REDACTED]
	Email	[REDACTED]
	Date	26th November 2021
Position in Company	Assistant Commercial Manager	

Signature	[REDACTED]

Core Work – Breakdown

[REDACTED]

[REDACTED]

[REDACTED]

Core Work – Milestone breakdown costs

Proposed Milestones Payments

Your TMS bid costs shall be included in milestone 1.

The final Milestone must reflect the actual cost of the deliverable, and be greater than 20% of the Task value, unless otherwise agreed with your Commercial POC

Please duplicate the template per milestone table format below as necessary, and rename milestone number accordingly.

[REDACTED]

Total	£93,702.71

Options – Summary

[REDACTED]

Total price of Options:

1	Option FY23	£89,150.08
2	Option FY24	£89,150.08
3	Option FY25	£89,150.08
Total		£267,450.24

Invoicing would be on a quarterly basis

Tasking Form Part 3:

To be completed by the Authority's Commercial Officer and copied to the Authority's Project Manager.

1. **Acceptance of Contract:**		
Authority's Commercial Officer	Name	[REDACTED]
	Tel	[REDACTED]
	Email	[REDACTED]
	Date	[REDACTED]
Requisition Number		R1000167809
Contractor's Proposal Number		QINETIQ/21/03959
Purchase Order Number		DSTLX-1000165143
Signature		[REDACTED]
Please Note: Task authorisation to be issued by the Authority's Commercial Officer or Contract Manager. Any work carried out prior to authorisation is at the Contractor's own risk.		