

Statement of Requirement (SoR)

Reference Number	RQ0000011904
Version Number	1.0
Date	10/07/2022

1.	Requirement
1.1	Title
	LCA Dismounted Demonstrator Phases 2 & 3
1.2	Summary
	<p>Examine the feasibility of using the OpenVPX standard to deliver a body worn dismounted Radio Frequency (RF) military capability. An initial feasibility study was completed as Phase 1 of this overarching task, showing that use of OpenVPX was a viable standard for certain uses cases. The follow on Phases described in this Requirement will design and manufacture a dismounted demonstrator system, based on outline concepts developed in Phase 1.</p> <p>Each Phase of this task will build to support the overall development and definition of the Land CEMA Architecture (LCA) whose technical specifications are captured in the LCA Technical Standard (LCATS) document.</p>
1.3	Background
	<p>The LCA is being developed to provide an open and flexible RF mission system architecture for the benefit of future Land Equipment Programmes. The LCATS defines the use of a number of existing open standards, including</p> <ol style="list-style-type: none">1) Modular Open RF Architecture (MORA)2) Generic Vehicle Architecture (GVA)3) OpenVPX4) Open Component Portability Infrastructure (OpenCPI) <p>Redacted under FOIA Section 26 – Defence</p>

It is the intention that the LCATS will be openly published, to facilitate the growth of an ecosystem of vendors and products compliant with the LCATS. Release of LCATS under this contract may be subject to further commercial conditions.

1.4 Requirement

Redacted under FOIA Section 26 – Defence

Deliverables:

- 1) Kick-off presentation to discuss scope and agree approach
- 2) Task 1:
 - a. Reorientation briefing
 - b. Phase 2 design definition and analysis document.
- 3) Task 2:
 - a. Preliminary Design Pack.
 - b. Phase 2 presentation and discussion with the authority covering key design features and the recommendations that shall form the Phase 3 options.
 - c. Phase 2 preliminary design mock-up (space model) – Optional deliverable.
- 4) Phase 3 proposal reflecting the output from Phase 2 and any feedback back from the Authority.

Intellectual Property Rights (IPR)

It is anticipated that the majority of the deliverables will attract DEFCON 705. However, there may be a need to apply DEFCON 703 to any deliverables in Phases 2 and 3 that stem from the need to achieve the aims and intended use of information generated under this contract described in the Background (section 1.3). Specifically, this is to protect the potential inclusion of elements of the work carried out under this contract within future, openly published, versions of the LCATS.

Contractors shall bring to the Authority’s attention any and all background Intellectual Property (IP) they may or do wish to use in fulfilling this contract in their bid proposals for each Phase, including statements on how this IP is necessary for or beneficial to satisfying the requirements. If any Background IP is proposed for use in the completion of Phases 2 or 3 that impacts the potential use in an openly published Technical Standard, the contractor shall also include in their proposals how this will be addressed. In addition, the contractor shall highlight any background IP that would necessitate linked Deliverables being delivered as both Full and Limited Rights versions under DEFCON 705.

	<p>Contractors should note that an impact assessment of any declared background IP forms part of the evaluation criteria.</p> <p>Should the use of additional background IP be identified during the course of the contract, the contractor shall raise this with Dstl immediately.</p> <p>In responses, contractors shall also identify any licencing requirements of third party tools/software/libraries etc. Additionally, should the use of additional third party licences be identified during the course of the contract, the successful contractor shall raise this with Dstl immediately.</p> <p>Security</p> <p>Security aspects are described in the accompanying Security Aspects Letter. It is anticipated that the majority of the work and outputs will be up to UK Official Sensitive. However, discussions and rationale for particular technical requirements and/or Use Cases may attract higher classification.</p>
<p>1.5</p>	<p>Options or follow on work</p>
	<p>Phase 3 – Dismounted Demonstrator Final Design and Manufacture (subject to additional contract)</p> <p>Phase 3 will take the preliminary design and Authority feedback from Phase 2 and, combined with Authority specific requirements, generate a dismounted demonstrator final design and subsequently manufacture this design. The aspiration is that the activities in this Phase will mature the Phase 2 design pack, adding additional layers of design analysis which shall underpin the delivery of the final design.</p> <p>Redacted under FOIA Section 26 – Defence</p> <p>Deliverables:</p> <ol style="list-style-type: none"> 1. Kick-off presentation to discuss scope and agree approach 2. Phase 3 design definition and analysis document. 3. Phase 3 manufacturing document. 4. Phase 3 implementation conformance and testing documentation. 5. Dismounted demonstrator system hardware and supporting documentation. 6. Dismounted demonstrator ancillaries (as required). 7. Interim and final Phase 3 presentations and discussions with the authority covering: <ol style="list-style-type: none"> a. Key implementation design features and to agree the final design for manufacture. b. Features of manufactured system and handover to the authority. 8. 5 days of integration support to the authority

Note: Whilst multiple Phase 2 contracts may be let, it is expected (but not certain) that only one Phase 2 design will be taken forward for detailed design and manufacture in Phase 3.

Deliverables and evaluation criteria for Phase 3 will be confirmed to Phase 2 contractors suitably in advance of proposal submission.

1.6 Deliverables & Intellectual Property Rights (IPR)							
Ref.	Title	Due by	Format	TRL*	Expected classification (subject to change)	What information is required in the deliverable	IPR DEFCON/ Condition
Phase 2 Deliverables							
P2-D1	Kick Off presentation	T0+2 weeks	Presentation (.pptx)	n/a	Redacted under FOIA Section 26 – Defence	Presentation pack to include but not limited to: <ul style="list-style-type: none"> • Overview of technical work to be carried out • Project schedule. • Review of risk management plan. • Commercial aspects. • Review of deliverables. • Risks/issues. • GFA and supplier performance 	DEFCON 705 / 703 as per content
P2-D2	Progress Meetings	Monthly (when no other meeting)	Virtual Meeting	n/a	Redacted under FOIA Section 26 – Defence	General progress update, to include but not limited to: <ul style="list-style-type: none"> • Technical Progress • Progress against schedule • Commercial Aspects • Risks and Challenges 	DEFCON 705 / 703 as per content

						Key actions and decisions to be recorded by the contractor and communicated to Dstl.	
P2-D3	Re-orientation Briefing	T0+1month	Presentation	n/a	Redacted under FOIA Section 26 – Defence	<p>To include:</p> <ol style="list-style-type: none"> 1. A high level summary of Phase 1 2. Description of each concept generated in Phase 1 3. preferred Task 2 concept and rationale 4. An outline plan for Task 2 	DEFCON 703
P2-D4	Design definition and analysis document	T0+3months	Document + Review Meeting	n/a	Redacted under FOIA Section 26 – Defence	<p>To include:</p> <ol style="list-style-type: none"> 1. Description of the selected concept. 2. A technical specification (e.g. Size, Weight, Power, RF Capability) that shall be targeted in Task 2, including rationale behind each element of the specification. (may draw on Phase 1) 3. Confirm the key areas of risk in the design and their prioritisation 4. Any identified implications for future LCA technical specifications or design approaches. 	DEFCON 703

P3-D5	Preliminary Design Pack	T0+9months	Document Pack	TRL 2/3 design for a TRL5/6 demonstrator	Redacted under FOIA Section 26 – Defence	<p>Design Pack to include, as a minimum:</p> <ul style="list-style-type: none"> • Specification • Mechanical Design • Electrical Design (inc. Backplane) • External Interfaces Design • Functional Design (and/or assumptions) <p>Format as appropriate for each item (e.g. CAD format for Mechanical design etc.)</p>	DEFCON 705
P2-D6	Preliminary Design Review	T0+9months	Meeting	n/a	Redacted under FOIA Section 26 – Defence	<p>Presentation and discussion with the Authority covering key design features, review of the Preliminary Design Pack and the recommendations for Phase 3 options.</p> <p>Key actions and decisions to be recorded by the contractor and communicated to Dstl.</p>	DEFCON 705
P2-D7	OPTION: Mechanical Space Model	T0+10months	Hardware	n/a	Redacted under FOIA Section 26 – Defence	<p>Non-functional space/mechanical model that should include:</p> <ul style="list-style-type: none"> • Mechanically functional fittings/mounts for antennas/ancillaries. • Physically represent (but not functional) Buttons/HMI. 	DEFCON 705

						<ul style="list-style-type: none"> • OpenVPX slot(s) should be represented and able to accept space mode/non-functional Plug-In Cards (contractor to provide) • Anticipated mass should be represented. 	
P2-D8	Phase 3 Proposal	T0+10m onths	Document	n/a	Redacted under FOIA Section 26 – Defence	A firm price proposal for Phase 3. Scope and deliverables as per Section 1.5, as updated through discussions / recommendations during Phase 2.	n/a
<i>Phase 3 deliverables are subject to confirmation</i>							

***Technology Readiness Level required**

Notes- IPR should be inserted / checked by commercial staff before sharing with the supplier(s) to ensure accuracy.

1.7	Standard Deliverable Acceptance Criteria
	As per Framework T&Cs
1.8	Specific Deliverable Acceptance Criteria
	N/A

2.	Quality Control and Assurance
2.1	Quality Control and Quality Assurance processes and standards that must be met by the contractor
	<input checked="" type="checkbox"/> ISO9001 (Quality Management Systems) <input type="checkbox"/> ISO14001 (Environment Management Systems) <input type="checkbox"/> ISO12207 (Systems and software engineering — software life cycle) <input type="checkbox"/> TickITPlus (Integrated approach to software and IT development) <input type="checkbox"/> Other: (Please specify below)
2.2	Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement
	<p>No Parts / components expected to attract ITAR.</p> <p>Demonstrator hardware may be assumed to always be used by Suitably Qualified and Experienced Personnel, and will be used in a lab-based (non-operational) environment only.</p>

3.	Security	
3.1	Highest security classification	
	Of the work	UK SECRET UK EYES ONLY
	Of the Deliverables/ Output	UK OFFICIAL-SENSITIVE
3.2	Security Aspects Letter (SAL)	
	Yes If yes, please see SAL reference- RQ0000011904	
3.3	Cyber Risk Level	
	Low	
3.4	Cyber Risk Assessment (RA) Reference	
	RAR-456760770 If stated, this must be completed by the contractor before a contract can be awarded. In accordance with the Supplier Cyber Protection Risk Assessment (RA) Workflow please complete the Cyber Risk Assessment available at https://www.gov.uk/guidance/supplier-cyber-protection-service	

4.	Government Furnished Assets (GFA)				
GFA to be Issued - Yes					
GFA No.	Unique Identifier/ Serial No	Description:	Available Date	Issued by	Return Date or Disposal Date (T0+)
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5.	Proposal Evaluation criteria
5.1	Technical Evaluation Criteria
	<i>TBC - single source authorisation being sought.</i>
5.2	Commercial Evaluation Criteria
	<i>TBC - single source authorisation being sought.</i>