

Request for Proposals (RFP)

The supply of a control software application for the Configurable Radar Research Facility to the CSIR

RFP No. 3260/18/01/2019

Date of Issue	18 December 2018	
Closing Date	18 January 2019	
Place	Tender box, CSIR Main Reception, Gate 3 (North Gate)	
Enquiries	Strategic Procurement Unit	E-mail: tender@csir.co.za
CSIR business hours	08h00 – 16h30	
Category	Engineering	

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SECTION A – TECHNICAL INFORMATION

1 INTRODUCTION

The Council for Scientific and Industrial Research (CSIR) is one of the leading scientific research and technology development organisations in Africa. In partnership with national and international research and technology institutions, CSIR undertakes directed and multidisciplinary research and technology innovation that contributes to the improvement of the quality of life of South Africans. The CSIR's main site is in Pretoria while it is represented in other provinces of South Africa through regional offices.

2 BACKGROUND

The Configurable Radar Research Facility (CRRF) is a project being developed by the CSIR under the Electronic Defence Evaluation Research Institute (EDERI) funding that is managed by Armscor on behalf of the Department of Defence (DOD). The facility is meant to be used for various radar measurement campaigns to support research into emerging radar trends and technology for the benefit of the DOD. A software control application is needed to facilitate easier use of the CSIR CRRF and to provide a monitoring and control interface into the facility. The focus on the development thus far has been to develop the Radio Frequency (RF) capabilities and store the recorded data by the CSIR team. The activity defined for this tender will focus on developing a control and monitoring application, which can be used by an operator in order to control and monitor what the system is doing.

3 INVITATION FOR PROPOSAL

Proposals are hereby invited to supply a control software application for the CSIR CRRF. This required application should be a C/C++ based graphical user interface (GUI), to be used to provide a mechanism for visualising various system level control and monitoring aspects for the CSIR CRRF.

A summary of the full scope of work is as follows:

- Demonstrate hardware (PC, networking and associated areas) and software infrastructure available at the tenderer's premises.
- Provide proof of development capabilities in order to develop the control software application for the CSIR CRRF.
- Generation of the User Requirement Specification (URS) and Software Requirements Specification (SRS) by the tenderer, utilising inputs from CSIR team members. The final version of these documents will be a deliverable for this tender.
- Design and development of control software application for use with the CSIR CRRF, once the URS and SRS have been agreed upon by the CSIR and the tenderer.
- Identification and definition of relevant software coding standards, software version control and software quality assurance guidelines as approved by the CSIR.
- Demonstration of developed control software application using tenderer developed simulators (that have been validated by the CSIR).
- Generation of Software Design Description (SDD) and User Guide documentation.
- Final integration testing of control software application within the CSIR CRRF infrastructure (at the CSIR premises on Pretoria campus) in order to verify correct operation of the facility.

4 PROPOSAL SPECIFICATION

All proposals are to be submitted in a format specified in this enquiry (if applicable). However, tenderers are welcome to submit additional / alternative proposals over and above the originally specified format.

All documents to be provided as searchable Portable Document Format (PDF) electronic files in addition to printed copies.

The tender must be structured in line with the activities and deliverables described in Table 1.

In addition, the following needs to be specified in the tender:

- Analysis of technical specification provided in this document
- Human resource availability over the project
- Infrastructure availability over the project
- Detailed project plan over the project
- Timeframes for delivery over the project
- After project support (availability and levels with associated costs)

All costs to be specified per category:

- Labour costs
- Subsistence and travel costs broken down to transport, accommodation, allowance rates
- Procurement costs and handling fees
- Procured items costs
- All hardware and software license costs for the project period, as well as any recurring costs thereafter, e.g. yearly license renewal fees
- Project management costs
- All costs must be specified VAT exclusive and inclusive.

Specific exclusions for the purpose of tenders are:

- The CSIR CRRF infrastructure (at the CSIR Pretoria campus) will be made available for certain time periods to allow for testing to occur. This availability may be changed based on the requirements of the CSIR to perform measurement campaigns for the SANDF.

The CSIR requires that the following minimum technical specifications are met by the tenderer:

The following (not limited to) technical specifications are meant to aid the tenderer for the purposes of this tender process. These technical specifications will be used as part of the discussion during the URS process and may be updated during those interactions.

The control software application shall be developed to have a Graphical User Interface (GUI) that allows the user of the CSIR CRRF to have access to the following information. This will provide an indication of the size of the task:

1. Provide indication when the system is transmitting (by interfacing with existing USRP SDR software running on an Ettus Research X310 SDR). API to be made available after contracting.
2. Provide indication of what mode the system is currently in (Off, Standby, Operate, Recording, as typical examples by interfacing with the USRP SDR software).

3. Provide indication of the recording status (Off, Start, Stop, and Mode of operation as typical examples by interfacing with the USRP SDR software). APIs to the provided
4. Provide a GUI from which to control the starting and stopping of the data recording (by interfacing with the USRP SDR software as well as the video data provided by the IP Camera). APIs to be provided.
5. Provide a visual representation of the key components of the system and provide feedback, if available through supplied APIs, from these components for monitoring purposes (e.g. interface with the USRP SDR software to determine temperatures, clock frequencies or similar information) – Rough estimate is: three (3) components with on average five (5) parameters per component.
6. The GUI for the control software interface may possibly consist of multiple windows that allow for the various functions to be implemented.
7. Provide an interface from which to control the rotator used by the CSIR CRRF (by interfacing with the rotator hardware (API to be provided). Required to control start, stop and speed. A mechanism should be provided to allow for later upgrade to control a positioner that can be commanded.
8. Launch the multi polarized range Doppler maps developed by the CSIR. i.e. CSIR has application that can display the live and recorded radar data. The control interface should launch these data displays.

More detail on each expected activity deliverable and timeline are provide in Table 1: Activities and Deliverables.

Table 1: Activities and Deliverables

#	ACTIVITY NAME	ACTIVITY DESCRIPTION	DELIVERABLE(S)	Preferred Timeline post tender placement
1	Skills required at the tenderer in order to perform the required development task	<p>The development team roles should consist of a minimum of:</p> <ul style="list-style-type: none"> • Software developer: The developer(s)/team should have at least 1 software developer, preferably with at least 5 years post graduate experience in developing application software • Software Radar Systems engineer: The developer(s)/team should have at least 1 software systems engineer, preferably with at least 3 years of exposure to Radar systems • Project manager: The team should have at least 1 project manager, with preferably a qualification in project management and preferable 3 years of exposure to the DOD contracting environment 	The tenderer shall provide the curriculum vitae (CV) of each team member as proof of the skill set of the team member.	As part of tender documentation
2	Armcor/DOD Security Clearance	The tenderer should have at least secret level of Armcor Security Clearance on all personnel and premises or be in the process of applying for clearance.	The tenderer shall provide proof of application or approved security clearances, of personnel and premises	Within 1 month
3	Software coding standard , software version control process and software quality assurance	The tenderer shall develop/provide a software coding standard, software version control process and a software quality assurance guideline that shall be used during the development of the control interface application for CSIR CRRF. These documents shall be reviewed during a formal	<ul style="list-style-type: none"> • Software coding standard • Software version control process • Software quality assurance guideline 	Within 2 months

		review meeting, and shall be approved by the CSIR team, when deemed complete	<ul style="list-style-type: none"> Minutes of review of documents, signed by the CSIR Project Manager (PM) as well as the representative tenderer. 	
4	User requirements and software requirements	The tenderer shall gather user requirements from the CSIR team and derive software requirements in order to generate the User Requirement Specification (URS) and Software Requirement Specification (SRS) documents. Work sessions shall refine the technical specification as described earlier in section 4 of this document. These work sessions shall be held between the CSIR engineers and the tenderer developer/s. A requirements review shall then be performed once the URS and SRS documents have been generated by the tenderer. This review shall have formal meeting minutes and should result in the URS and SRS being signed off and approved by the CSIR and the tenderer.	<ul style="list-style-type: none"> Approved, by the CSIR and the tenderer, URS and SRS documents Signed minutes of the review of the URS and SRS by the CSIR and the tenderer. 	Within 2 months
5	Demonstrate hardware and software infrastructure	<p>The hardware shall comprise of at least a:</p> <ul style="list-style-type: none"> Supermicro Personal computer (PC) <ul style="list-style-type: none"> Recommended Specifications (or similar): <ul style="list-style-type: none"> SUPERMICRO SYS-7048A-T SUPERMICRO SSD RETEN BRAC FOR 743 RJ-45 Intel® Xeon® Processor E5-2630 v4 10C 2.20 GHz 16GB DDR4-2400 2Rx4 ECC REG DIMM 	Demonstration of the tenderer's hardware and software capabilities that is witnessed by CSIR technical staff and the CSIR Project Manager (PM).	Within 3 months

		<ul style="list-style-type: none"> ▪ INTEL Solid State Drive 240GB 2.5" ▪ INTEL, 480GB, SATA 6Gb/s, VNAND, 2.5", 7.0mm, 19nm (3.6 DWPD) ▪ GeForce GTX 1060 <ul style="list-style-type: none"> • Ethernet switch <ul style="list-style-type: none"> ○ D-link DXS-1210 Series (or similar) and Gigabit Ethernet cabling (as required) • Secondary PC (simulate the system of interest) with 1 Gigabit Ethernet Network Interface Card (NIC).. Preferably a desktop PC purchased and built within the last 2 years. <p>The software infrastructure shall consists of:</p> <ul style="list-style-type: none"> • All PCs running Ubuntu Linux 18.04 LTS • The utilisation of Git for version control • The ability to handle Ethernet communication protocols (Gigabit Ethernet TCP/IP and UDP) • It would be advantageous to be able to handle RS232 (RS-232-C) serial communication protocols • The ability to run scripts on Linux PCs. 		
6	Design Control Software implementation based on the URS and SRS	A design shall be developed using Unified Modelling Language (UML) or similar tools by the tenderer in consultation with the CSIR design team. Once, the design has been matured by the tenderer and CSIR team, a formal design review	<ul style="list-style-type: none"> • An approved design including (but not limited to) a class diagram, mock-up of GUI, deployment diagram, interface diagram, 	Within 3 months

		<p>shall be held with the CSIR PM and CSIR Software Lead to ratify the developed design. This review shall have formal meeting minutes and should result in the design being signed off and approved by the CSIR and tenderer for the implementation to commence.</p> <p>Development on the facility simulator may commence based on agreed upon URS and SRS requirements. This may require access to the interfacing documentation of the facility at this stage.</p>	<p>sequence diagram, data and process flow diagram and use case diagram..</p> <ul style="list-style-type: none"> • Formal review minutes signed off by the tenderer representative and the CSIR PM. 	
7	Development of control software implementation based on the approved application design	The development and implementation of the CSIR CRRF control software shall be based on the agreed upon design. The code shall be reviewed and a demonstration of the application shall be performed in order to prove that the application meets the requirements stipulated in the URS and SRS.	<ul style="list-style-type: none"> • Minutes of code review, signed by CSIR PM and the representative of the tenderer. • Verification checklist approved by the CSIR PM and a representative of the tenderer, showing that the agreed upon requirements in the URS and SRS are met. • Demonstration of the functionality of the application to the CSIR team making use of the approved test procedure with the completed facility simulator. 	Within 5 months (Also a mini milestone review after 4 months)
8	Software design description (SDD) and User Guide for the	The tenderer shall gather the various aspects for the software design description (SDD) and the user	<ul style="list-style-type: none"> • Software design description approved by CSIR PM and 	Within 5 months

	CSIR CRRF control application	guide during the design and development phases of the project. A review should be performed to approve these documents. This review shall have formal meeting minutes being signed off and approved by the CSIR and a representative of the tenderer.	<p>a representative of the tenderer.</p> <ul style="list-style-type: none"> • User guide approved by CSIR PM and a representative of the tenderer. • Minutes of review of SDD and User guide approved by CSIR PM and a representative of the tenderer. 	
9	Control software application integration into CSIR CRRF infrastructure.	The tenderer shall be required to work on the CSIR CRRF system (at the CSIR Pretoria Campus) with the assistance of the CSIR engineers. This is in order to integrate the control software application into the CSIR CRRF infrastructure. A demonstration after the integration has been completed shall be required.	<ul style="list-style-type: none"> • Demonstration of the control software implementation running in the CSIR CRRF infrastructure against. Validated in accordance to the requirements agreed upon in the URS and SRS. • A checklist showing the requirements being achieved shall be utilised for signoff on this demonstration. • A full software data pack including all versions of the software code developed, shall be provided to the CSIR. 	Within 6 months

5 FUNCTIONAL EVALUATION CRITERIA

- 5.1 Refer to Annexure A for the scoring sheet that will be used to evaluate functionality.
- 5.2 Proposals with functionality / technical points of less than the pre-determined minimum overall percentage of 70 % and less than 50 % on any of the individual criteria will be eliminated from further evaluation.
- 5.3 Refer to Annexure A for the scoring sheet that will be used to evaluate functionality.

6 ELIMINATION CRITERIA

Proposals will be eliminated under the following conditions:

- Submission after the deadline;
- Proposals submitted at incorrect location;
- ONLY level 1 BBBEE EME or QSE suppliers will be considered for this tender
- Failure to submit any of the following:
 - Proof of valid Security Clearances for all staff of the bidder involved in the project.
 - A valid Armscor Security Facility Clearance certificate.

7 NATIONAL TREASURY CENTRAL SUPPLIER DATABASE REGISTRATION

Before any negotiations will start with the winning bidder it will be required from the winning bidder to:

- be registered on National Treasury's Central Supplier Database (CSD).
Registrations can be completed online at: www.csd.gov.za;
- provide the CSIR of their CSD registration number; and
- provide the CSIR with a certified copy of their B-BBEE certificate. If no certificate can be provided, no points will be scored during the evaluation process. (RSA suppliers only)

SECTION B – TERMS AND CONDITIONS

8 VENUE FOR PROPOSAL SUBMISSION

All proposals must be submitted at:

- **CSIR GATE 03 - Main Reception Area** (in the **Tender box**) at the following address
Council for Scientific and Industrial Research (CSIR)
Meiring Naudé Road
Brummeria
Pretoria

9 TENDER PROGRAMME

The tender program, as currently envisaged, incorporates the following key dates:

- Issue of tender documents: 18 December 2018
- Closing / submission Date: 18 January 2019
- Estimated contract duration (in months/years) 8 months

10 SUBMISSION OF PROPOSALS

10.1 All proposals are to be sealed. No open proposals will be accepted.

10.2 All proposals are to be clearly marked with the RFP number and the name of the tenderer on the outside of the main package. Proposals must consist of two parts, each of which is placed in a separate sealed package clearly marked:

PART 1: Technical Proposal:

PART 2: Pricing Proposal, B-BBEE and other Mandatory Documentation:

10.3 Proposals submitted by companies must be signed by a person or persons duly authorised.

10.4 The CSIR will award the contract to qualified tenderer(s) whose proposal is determined to be the most advantageous to the CSIR, taking into consideration the technical (functional) solution, price and B-BBEE.

11 DEADLINE FOR SUBMISSION

Proposals shall be submitted at the address mentioned above no later than the closing date of *Friday, 18 January 2019* during CSIR's business hours. The CSIR business hours are between 08h00 and 16h30.

Where a proposal is not received by the CSIR by the due date and stipulated place, it will be regarded as a late tender. Late tenders will not be considered.

12 AWARDING OF TENDERS

12.1 Awarding of tenders will be published on the National Treasury e-tender portal. No regret letters will be sent out.

13 EVALUATION PROCESS

13.1 Evaluation of proposals

All proposals will be evaluated by an evaluation team for functionality, price and B-BBEE. Based on the results of the evaluation process and upon successful negotiations, the CSIR will approve the awarding of the contract to successful tenderers.

A two-phase evaluation process will be followed.

- The first phase includes evaluation of **elimination** and **functionality criteria**
- The second phase includes the evaluation of **price** and **B-BBEE** status.

Pricing Proposals will only be considered after functionality phase has been adjudicated and accepted. Only proposals that achieved the specified minimum qualification scores for functionality will be evaluated further using the preference points system.

13.2 Preference points system

The 80/20 preference point system will be used where 80 points will be dedicated to price and 20 points to B-BBEE status.

14 PRICING PROPOSAL

14.1 Pricing proposal must be cross-referenced to the sections in the Technical Proposal. Any options offered must be clearly labelled. Separate pricing must be provided for each option offered to ensure that pricing comparisons are clear and unambiguous.

14.2 Price needs to be provided in South African Rand (excl. VAT), with details on price elements that are subject to escalation and exchange rate fluctuations clearly indicated.

14.3 Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable.

14.4 Only firm prices* will be accepted during the tender validity period. Non-firm prices** (including prices subject to rates of exchange variations) will not be considered.

**Firm price is the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax which, in terms of a law or regulation is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;*

***Non-firm price is all prices other than "firm" prices.*

14.5 Payment will be according to the CSIR Payment Terms and Conditions.

15 VALIDITY PERIOD OF PROPOSAL

Each **proposal** shall be valid for a minimum period of three (3) months calculated from the closing date.

16 APPOINTMENT OF SERVICE PROVIDER

16.1 The contract will be awarded to the tenderer who scores the highest total number of points during the evaluation process, except where the law permits otherwise.

16.2 Appointment as a successful service provider shall be subject to the parties agreeing to mutually acceptable contractual terms and conditions. In the event of the parties failing to reach such agreement CSIR reserves the right to appoint an alternative supplier.

16.3 Awarding of contracts will be announced on the National Treasury website and no regret letters will be sent to unsuccessful bidders.

17 ENQUIRIES AND CONTACT WITH THE CSIR

Any enquiry regarding this RFP shall be submitted in writing to CSIR at tender@csir.co.za with "**RFP No 3260/18/01/2019 - The supply of a control software application for the Configurable Radar Research Facility**" as the subject.

Any other contact with CSIR personnel involved in this tender is not permitted during the RFP process other than as required through existing service arrangements or as requested by the CSIR as part of the RFP process.

18 MEDIUM OF COMMUNICATION

All documentation submitted in response to this RFP must be in English.

19 COST OF PROPOSAL

Tenderers are expected to fully acquaint themselves with the conditions, requirements and specifications of this RFP before submitting proposals. Each tenderer assumes all risks for resource commitment and expenses, direct or indirect, of proposal preparation and participation throughout the RFP process. The CSIR is not responsible directly or indirectly for any costs incurred by tenderers.

20 CORRECTNESS OF RESPONSES

- 20.1 The tenderer must confirm satisfaction regarding the correctness and validity of their proposal and that all prices and rates quoted cover all the work/items specified in the RFP. The prices and rates quoted must cover all obligations under any resulting contract.
- 20.2 The tenderer accepts that any mistakes regarding prices and calculations will be at their own risk.

21 VERIFICATION OF DOCUMENTS

- 21.1 Tenderers should check the numbers of the pages to satisfy themselves that none are missing or duplicated. No liability will be accepted by the CSIR in regard to anything arising from the fact that pages are missing or duplicated.
- 21.2 *One hard copy and one electronic copy (USB memory key)* of each proposal must be submitted. In the event of a contradiction between the submitted copies, the hard copy shall take precedence.
- 21.3 Pricing schedule and B-BBEE credentials should be submitted with the proposal, but as a separate document and no such information should be available in the technical proposal.

- 21.4 If a courier service company is being used for delivery of the proposal document, the RFP description must be endorsed on the delivery note/courier packaging to ensure that documents are delivered to the tender box, by the stipulated due date.

22 SUB-CONTRACTING

- 22.1 A tenderer will not be awarded points for B-BBEE status level if it is indicated in the tender documents that such a tenderer intends sub-contracting more than **25%** of the value of the contract to any other enterprise that does not qualify for at least the points that such a tenderer qualifies for, unless the intended sub-contractor is an exempted micro enterprise that has the capability and ability to execute the sub-contract.
- 22.2 A tenderer awarded a contract may not sub-contract more than **25%** of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an exempted micro enterprise that has the capability and ability to execute the sub-contract.

23 ENGAGEMENT OF CONSULTANTS

The consultants will only be remunerated at the rates:

- 23.1 Determined in the "Guideline for fees", issued by the South African Institute of Chartered Accountants (SAICA); or
- 23.2 Set out in the "Guide on Hourly Fee Rates for Consultants", by the Department of Public Service and Administration (DPSA); or
- 23.3 Prescribed by the body - regulating the profession of the consultant.

24 TRAVEL EXPENSES

- 24.1 All travel expenses for the CSIR's account, be it directly via the CSIR's travel agent or indirectly via re-imbursing, must be in line with the CSIR's travel policy. The following will apply:
- 24.1.1 Only economy class tickets will be used.
- 24.1.2 A maximum of R1300 per night for accommodation, dinner, breakfast and parking will be allowed.
- 24.1.3 No car rentals of more than a Group B will be accommodated.

25 ADDITIONAL TERMS AND CONDITIONS

- 25.1 A tenderer shall not assume that information and/or documents supplied to CSIR, at any time prior to this request, are still available to CSIR, and shall consequently not make any reference to such information document in its response to this request.
- 25.2 Copies of any affiliations, memberships and/or accreditations that support your submission must be included in the tender.
- 25.3 In case of proposal from a joint venture, the following must be submitted together with the proposal:
- Joint venture Agreement including split of work signed by both parties;
 - The original or certified copy of the B-BBEE certificate of the joint venture;
 - The Tax Clearance Certificate of each joint venture member;
 - Proof of ownership/shareholder certificates/copies; and
 - Company registration certificates.
- 25.4 An omission to disclose material information, a factual inaccuracy, and/or a misrepresentation of fact may result in the disqualification of a tender, or cancellation of any subsequent contract.
- 25.5 Failure to comply with any of the terms and conditions as set out in this document will invalidate the Proposal.

26 CSIR RESERVES THE RIGHT TO

- 26.1 Extend the closing date;
- 26.2 Verify any information contained in a proposal;
- 26.3 Request documentary proof regarding any tendering issue;
- 26.4 Give preference to locally manufactured goods;
- 26.5 Appoint one or more service providers, separately or jointly (whether or not they submitted a joint proposal);
- 26.6 Award this RFP as a whole or in part;
- 26.7 Cancel or withdraw this RFP as a whole or in part.

27 DISCLAIMER

This RFP is a request for proposals only and not an offer document. Answers to this RFP must not be construed as acceptance of an offer or imply the existence of a contract between the parties. By submission of its proposal, tenderers shall be deemed to have

satisfied themselves with and to have accepted all Terms & Conditions of this RFP. The CSIR makes no representation, warranty, assurance, guarantee or endorsements to tenderer concerning the RFP, whether with regard to its accuracy, completeness or otherwise and the CSIR shall have no liability towards the tenderer or any other party in connection therewith.

DECLARATION BY TENDERER

Only tenderers who completed the declaration below will be considered for evaluation.

RFP No: 3260/18/01/2019

I hereby undertake to render services described in the attached tendering documents to CSIR in accordance with the requirements and task directives / proposal specifications stipulated in RFP No.3260/18/01/2019 at the price/s quoted. My offer/s remains binding upon me and open for acceptance by the CSIR during the validity period indicated and calculated from the closing date of the proposal.

I confirm that I am satisfied with regards to the correctness and validity of my proposal; that the price(s) and rate(s) quoted cover all the services specified in the proposal documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this proposal as the principal liable for the due fulfilment of this proposal.

I declare that I have no participation in any collusive practices with any tenderer or any other person regarding this or any other proposal.

I accept that the CSIR may take appropriate actions, deemed necessary, should there be a conflict of interest or if this declaration proves to be false.

I confirm that I am duly authorised to sign this proposal.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES

1

2

DATE:

28 ANNEXURE A

28.1 Technical Scoring Sheet

Table 2: Technical Scoring Categories

No.	Availability Category	Category Weighting
1	Human resources availability	30%
2	Infrastructure	15%
3	Detailed project plan	10%
4	Timeframes	20%
5	Technical specification	25%

28.1.1 Human Resources Availability

Table 3: Technical Scoring - Human Resources Availability

No.	Availability Category	Category Weighting	Score Category	Score Value
1	Availability and Assignment of Experienced and Qualified Software Engineers	60%	Non-Graduate	0%
			3 or more years of C/C++ application software development experience with graduate degree	50%
			5 or more years of C/C++ application software development experience with graduate degree and some radar system exposure	100%
2	Availability and Assignment of Experienced and Qualified System Engineers	30%	Non-Graduate	0%
			Minimum of 1 year of radar system knowledge and at least 3 years of application software development experience with a graduate degree	50%
			Minimum of 3 years of radar system knowledge and at least 5 years of application software development experience with a graduate degree	100%

3	Availability and Assignment of Project Management Individuals	10%	No Experience	0%
			PM Qualification (short courses are acceptable), preferably technical PM with engineering background	30%
			PM Qualification and at least 1 year of knowledge in a DOD environment	60%
			PM Qualification and at least 3 years' experience within the DOD environment	100%

28.1.2 Infrastructure

Table 4: Technical Scoring - Infrastructure

No.	Availability Category	Category Weighting	Score Category	Score Value
1	Infrastructure available to demonstrate a technical solution (Development environment).	100%	Availability not specified or not available	0%
			Partial compliance with Table 1 item 5. Please provide item specifications where applicable.	50%
			Full compliance with Table 1 item 5. Please provide item specifications where applicable.	100%

28.1.3 Detailed Project Plan

Table 5: Technical Scoring – Detailed Project Plan

No.	Availability Category	Category Weighting	Score Category	Score Value
1	Detailed project plan (Please breakdown each activity and outline time and resource usage over the span of the project)	100%	Not specified or not relevant	0%
			Specified but not sufficient detail provided per activity	50%

			and showcasing resources and timeline.	
			Specified with required level of detail provided per activity and showcasing resources and timeline.	100%

28.1.4 Ability to Deliver within Specified Timeframe

Table 6: Technical Scoring – Timeframe

No.	Availability Category	Category Weighting	Score Category	Score Value
1	Timeframe	100%	Not specified or not able to complete the project before 30 September 2019 or within 9 months of receiving the contract, whichever is earlier	0%
			Specified but able to complete the project before 30 September 2019 or within 7 months of receiving the contract, whichever is earlier	50%
			Specified and able to complete the project before 30 August 2019 or within 6 months of receiving the contract	100%

28.1.5 Analysis of initial Technical Specification

Table 7: Technical Scoring – Technical Specification

No.	Availability Category	Category Weighting	Score Category	Score Value
1	Analysis of initial technical specification (as outlined in section 4 of this document)	100%	Not specified, not provided or not relevant	0%
			Specify understanding of technical specifications but not sufficient detail	50%
			Detailed understanding of technical specification and analysis provides sufficient detail for implementation	100%