Headquarters Supreme Allied Commander Transformation Norfolk Virginia



REQUEST FOR INFORMATION AIRC2 CAPABILITY ARCHITECTURE RFI-ACT-SACT-21-90

This document contains a Request for Information (RFI) Call for Nations and Industry inputs to the future AirC2 Capability Architecture.

Nations and Suppliers wishing to respond to this RFI should read this document carefully and follow the guidance for responding.

1
NATO UNCLASSIFIED

HQ Supreme Allied Commander Transformation RFI 21-90	
General Information	
Request For Information No.	21-90
Project Title	Request for Nations and Industry input to AirC2
	Capability Architecture Programme
Due date for submission of requested information	30 October 2021
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1 - INTRODUCTION

Headquarters Supreme Allied Commander Transformation (HQ SACT) is issuing this Request for Information (RFI) in order to engage with Nations and industry. The intention is to understand the availability of National AirC2 Enterprise Architectures in order to support NATO Governance decision-making on Common-Funded Capability Development.

2 - DISCLAIMER

This RFI does not constitute an Invitation for Bid or a Request for Proposal (RFP) and should not be considered as a commitment on the part of the North Atlantic Treaty Organization (NATO). Responses to this RFI are placed on notice that any information received by NATO does not ensure participation in any planned or anticipated future solicitations or contract awards. NATO will not reimburse participants for any expenses associated with their participation in this informational request.

3 - BACKGROUND

Alliance Command, Control and Consultation (C3) policy approved by the North Atlantic Council (NAC) requires the use of Enterprise Architectures (EAs) to support capability delivery and the execution of business, information and communications technology strategies. Architectures at capability level are used to support the delivery of large, multi-phased and multi-project change initiatives (e.g. CPP). The Capability Architecture will:

- facilitate the definition of resource proposals to address existing shortfalls between the available (As-Is) capability and the required (To-Be) capability;
- support the scoping and phasing of projects to resolve these shortfalls;
- identify synergies between the projects;
- direct, monitor and evaluate the execution of a set of related projects.

4 - DESCRIPTION OF THE PROGRAMME

4.1 VISION

Establish an AirC2 Capability Architecture, federated and service-based with the potential to integrate advanced technologies to guide the Doctrine, Organisation, Training, Materiel, Leadership, Personnel, Facilities, and Interoperability (DOTMLPFI) lines of capability development in order to support stakeholder decisions during programme implementation.

4.2 SCOPE

The Programme will develop a comprehensive overarching Air C2 Capability Architecture offering "As-Is" and "To-Be" dimensions to guide future implementation initiatives through NATO Common Funded approaches, while providing the flexibility to harmonise and exploit acquisition and/or fielding of national capabilities. The "To-Be" Capability Architecture identify and display the future NATO AirC2 Vision and capability requirements. The scope of the Capability Architecture is depicted in the Figure 1-1 below:

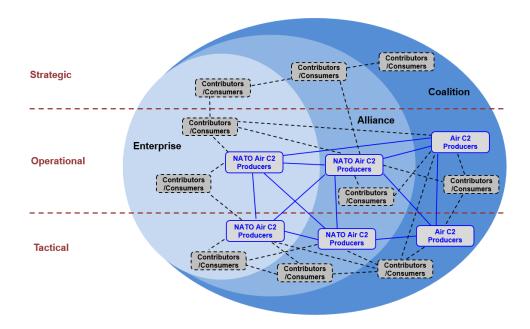


Figure 1 / NATO AirC2 Architecture Scope

As displayed in Figure 1, although the majority of NCS Joint Air C2 specific processes occur among operational and tactical-level producers, contributors and consumers, it is also driven by, and interacts with, strategic processes and actors. The AirC2 Capability Architecture spans not only the vertical levels of C2, but also reaches horizontally beyond the NATO Enterprise stakeholders to encompass Alliance and Coalition stakeholders as well. Given this reach, developing AirC2 Capability Architectures will require contribution throughout the NATO Enterprise, as well as from Alliance and Coalition partners.

The Air C2 Capability as showed in Figure 2 is composed by the following Functional Areas and a Proof of Concept has been developed for the "Airspace Control" area.

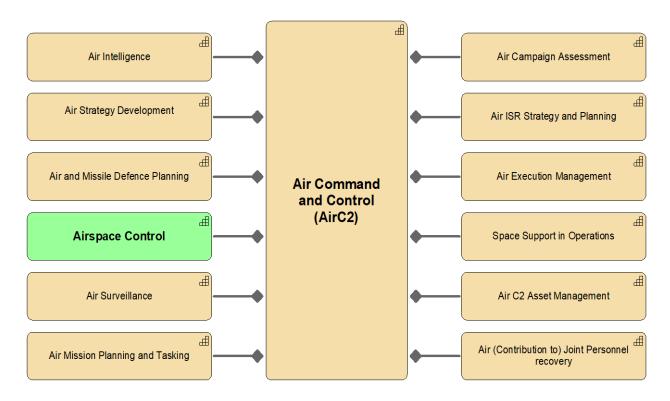


Figure 2 / NATO AirC2 Architecture Scope

4.3 STATUS

The AirC2 Capability Architecture programme is currently at the initial stage during which the operational user submits an Operational Requirements Statement (ORS), to authorize a programme mandate.

Follow-on capability requirement statements will build on the stakeholder concerns set out in the ORS. Thereafter, a Capability Programme Plan (CPP) will be developed to describe how the capability requirements will be met setting out a proposed implementation approach supported by cost and schedule estimates.

4.4 ANALYSIS OF ALTERNATIVES

An important step in developing realistic programme implementation proposals is conduct of an Analysis of Alternatives which examine prospective approaches. Additionally, the CPP will identify available options (alternatives) and provide an analytical comparison (Analysis of Alternatives) of the operational effectiveness and life cycle costs of the different alternatives to consider in order to satisfy the original ORS. The Analysis of Alternatives (AoA) includes the consideration of "Adopt"-ing a solution (from Nations), "Buy"-ing an existing solution (acquiring an off-the-shelf solution from Industry), or "Create"-ing a solution (contracting the development of a solution bespoke to NATO). The AoA will be used to help develop, and subsequently justify, programme proposals. To truly present all available options with a CPP for AirC2 Architecture, an RFI is necessary to determine whether relevant architectures exist across the Nations (as part of the consideration of "Adapt") and/or the commercial market (as part of the consideration of "Buy").

This is not a formal request for submissions as part of a procurement; it is intended to conduct an additional indepth survey to determine possible existing architectures, which should be identified in the development of the CPP.

The AirC2 Capability Architecture CPP will need a robust AoA across the Adopt, Buy, and Create landscape. This RFI is intended to give Nations and industry an opportunity to provide information that would allow NATO to set realistic expectations and provide determine potential benefits they might receive from a product or service.

5 - REQUESTED INFORMATION

- 5.1 The information collected with this survey will be used in support of an AoA evaluation. Nations or Industry offering potential solutions for an AirC2 Capability Architecture may be invited to participate in additional planning discussions to further understand the solution offered.
- 5.2 Questions and requests:
 - 5.2.1 Have you developed, or are you in the process of developing, architectures that may be used, adapted or provide contributions to a NATO AirC2 Capability Architecture?
 - a) Does the architecture follow the NATO Architecture Framework V4.0?
 - b) What methodology is applied (e.g. TOGAF, DODAF, ISO/IEC/IEEE 42010, 42020...)?
 - c) What Meta-Model is used (e.g. ArchiMate, United Architecture Framework (UAF),...)?
 - d) Which types of Architecture as defined in the NATO EA Policy do you address (Business, Information, Application, and Technology)?
 - e) Does the architecture address gaps and overlaps in the DOTMLPFI lines of development?
 - f) Does your Nation/Company provide Enterprise Architecture as a Service?
 - g) Are you familiar using Agile methodology in Enterprise Architecture development?
 - Are you able to handle classified information and up to which NATO classification level?
 - 5.2.2 Please confirm that you are open to further engagement about your solution(s) including programmatic aspects (cost, schedule, risks) and provide a nominated point of contact.

6 - ANSWERS TO THE RFI.

- 6.1 The answer to this RFI should be submitted by e-mail to the Points of Contact listed above.
- 6.2 **HANDLING OF PROPRIETARY INFORMATION.** Proprietary information, if any, should be minimized and clearly marked as such. Please be advised that all submissions become HQ SACT property and will not be returned. Entities responding to RFIs are advised HQ SACT may use submitted information in analytical efforts and may, on a case by case basis, furnish the submitted information to other industry actors, other

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NATO entities, and national organizations (MOD activities, national labs, etc.) in the furtherance of the HQ SACT programme of work. HQ SACT will negotiate and conclude tailored NDA's on a case by case basis, when submitting organizations make such requests. P&C and the Office of the Legal Advisor will collaborate to ensure applicable NDA's are concluded to protect submitted proprietary information.

7 - FOLLOW-ON.

- 7.1 The data collected in response to this RFI will be used to shape the AirC2 Capability Architecture programme and recommend an optimised acquisition approach.
- 7.2 Any provision of data, or lack thereof, will not prejudice any respondent in the event that there is a competitive bidding process later.
- 7.3 Response Date. 30 October 2021
- **7.4 Response Format**. Responses must be submitted as a Microsoft Word or PowerPoint document. Responses are limited to ten (10) A4 / letter size pages (using a minimum of 10pt font).

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