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|  |  | ***Acquisition Management System Guidance*** | |
| **Business Case Template for**  **Variable Quantity Investment** | | |  |

**July 2023**

Federal Aviation Administration

800 Independence Avenue SW

Washington, DC 20591

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|  |  | **Federal Aviation**  **Administration** | |
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|  |  | (Date) | |
| **Final Business Case for**  **(Name of VQ Investment)**  Enterprise Architecture Roadmap Statement #  Approved by: Date:  Vice President (ATO) or Director (Non-ATO) of Sponsoring Service Organization or Line of Business  Contact Point  *Name*  *Organizational Code*  *Phone Number*  *FAX Number*  Federal Aviation Administration  800 Independence Avenue SW  Washington, DC 20591 | | |  |

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**Appendix A: Funding options & operational risk analysis**

*This template may be tailored by the Investment Planning and Analysis organization, Business Case Review group depending on the nature of the initiative. Requests for tailoring should be made very early in final investment analysis.*

**EXECUTIVE SUMMARY**

*Summarize the key information in this document, highlighting those elements that are most relevant to the Joint Resources Council when making an investment decision. Include the following: A brief summary of the operational shortfall or service need; a brief description of the recommended variable quantity procurement and its impact on FAA operations; and a summary of the impact on FAA operational capability if the investment is delayed or not funded.*

# IMVESTMENT DESCRIPTION

*Describe this variable quantity procurement and explain the operational or service benefit. Briefly summarize the range of funding options that could address the shortfall or opportunity and the total cost of each.*

# Problem Statement

*Briefly describe the problem that needs to be resolved. Summarize and update information from Section 1 of the Final Shortfall Analysis Report produced during concept and requirements definition. Express the information succinctly so busy executives can quickly understand the need for the initiative.*

*Briefly explain why this investment must be approved now. Identify the drivers and support each with technical, operational, or legislative information. This forms the basis for the analysis in Section 8 - Impact if not Funded or Delayed.*

# Risk Assessment



## 3.1 Programmatic Risk

*Business case risk analysis assesses the probability of an undesirable event occurring or not occurring during implementation and the significance of the event. It is a process in which programmatic, technical, and analytical specialists review cost and benefits estimates, supporting ground rules, assumptions, and the basis of estimate to identify significant risks, devise mitigation techniques, and include risk-mitigation costs in the appropriate WBS element. At a minimum, costs, benefits, schedule, and technical risks must be identified and analyzed.*

*Identify and summarize the major risks associated with implementing this initiative. Include the overall risk rating for each funding option in Section 9 supported by a 5 X 5 risk matrix (See “Guide to Conducting Business Case Risk Assessments”). Briefly summarize the mitigation strategy for each major risk. Reference the risk mitigation plan.*

## 3.2 Issues and Opportunities

*Include issues and opportunities that have been identified, analyzed, and incorporated into the business case, as well as any opportunities that would have a positive impact on the investment. For ATO programs, reference the PMO Risk, Issues, and Opportunities Management Plan.*

# ****Related Assessments****

*Depending on the nature of the investment, all or some of the following assessments may be appropriate:*

* *Architecture Impact Assessment*
* *Human Engineering/Operability Assessment*
* *Information and System Security Assessment (see AMS Policy Section 4.11 on FAST)*
* *Environment and Occupational Safety and Health Assessment*
* *Other Specialty Engineering Assessments.*

*See the IP&A website at http://ipa.faa.gov for information on these assessments.*

# ****AFFORDABILITY ANALYSIS****

*Send the estimates of lifecycle cost for each alternative to FAA Finance. This office assesses the budget impact and relative contribution to agency goals of this variable quantity initiative against other ongoing and proposed investment programs in the FAA financial baseline. When the initiative cannot be funded within the financial baseline, FAA Finance may propose offsets from lower priority programs. The budget impact assessment shapes subsequent deliberations of the business case analysis team.*

*Summarize findings and recommendations of the affordability analysis here.*

*Include a summary budget chart by fiscal year for the recommended investment initiative containing both acquisition (F&E) and operational (OPS) costs in risk-adjusted then-year dollars. Additionally, this section should include a table that depicts in total and on an annual basis the number of AJW-2 federal FTEs and/or AJW-2 support contractor FTEs performing implementation activities consistent with the FTEs depicted, or will be depicted, in the Corporate Work Plan (CWP). The table should also include the dollars required for AJW-2 materials purchases and/or support contractor travel and labor.*

# Recommendation

*State your recommendation and supporting rationale here (e.g., operational benefits, improvements in efficiency or effectiveness, cost savings, etc.).*

# Schedule

*Include a simple schedule displaying when the solution will be deployed if approved as requested.*

*See “Guide to Conducting Business Case Schedule Evaluations” at http://ipa.faa.gov*

# Impact if Not Funded or Delayed

*Briefly state what will happen if this initiative is delayed or not funded (Reference the Legacy Case Risk Assessment in the final Shortfall Analysis Report). Summarize the impact on other initiatives or operational assets dependent on this initiative.*

# Procurement Alternative

*State the recommended procurement alternative, if any, and summarize the rationale for the recommendation.*

# Appendix A: Funding options and operational risk analysis

##### 

**SUPPORTING DOCUMENTS**

Variable Quantity Execution Plan

Cost Basis of Estimate

Shortfall Analysis Report

PMO Risk, Issues, and Opportunities Management Plan

Appendix a: funding options and operational risk assessment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Program Name: |  | | | |
| Program CIP #: |  | | Date: |  |
| Service Organization: |  | | Timeframe: |  |
| ACAT: |  | |  |
|  |  | |  |
| Sponsor Name/Routing Code/Phone#: | |  | | |

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| **Purpose of the Funding Options and Operational Risk Analysis** |
| Variable Quantity programs are required to complete a Funding Options and Operational Risk Analysis for three different funding options. This allows decision-makers to consider different funding trade-offs, assess how differing levels of funding may impact overall effectiveness, and ultimately balance the cost of this investment against annual budget limitations.  Examples of how the three different options may be framed include the following:   * Provide the quantity needed to satisfy operational capability performance parameters * Provide the most realistic purchase option based on historical budget data * Provide the most cost effective strategy relative to the agency needs.   The Funding Options and Operational Risk Analysis will include a description for each option and a 5-year F&E flexible funding profile that includes minimum quantity/performance targets based on the operational risk described in the business case. Both the unit cost and total cost are required. |

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| **Program Overview** | |
| Description of Initiative: | *Briefly describe the items being procured, scope of the investment, and rationale for the procurement.* |
| Relevance to FAA Mission: | *Briefly describe how the investment contributes to FAA strategic goals and fits within the appropriate enterprise architecture roadmap.* |
| Program Interdependencies: | *Briefly describe interdependencies with other FAA programs or operational assets.* |

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| --- | --- |
| **Option 1: *Name*** | |
| Description of Option 1: | *Summarize important investment attributes such as the % coverage of the NAS, % coverage of facilities, % coverage of airports, % coverage of service delivery points, etc., to inform decision-makers about what will be covered or not covered by the option.* |

**Estimated Costs**

*Use the table below to list all products, systems, or services requested for the next five budget years for this option. For each component, include the quantity, unit cost, installation cost, other indirect costs (including management costs), and total F&E funding.*

| Product, System, or Service Component | | Quantity | Unit  Cost | Installation Cost | Indirect  Cost | Total Cost |
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| **Subtotal** | |  |  |  |  |  |
| **Total Requested F&E Funding** | |  |  |  |  |  |

**Estimated FTEs**

*Use the table below to estimate total service unit or program office FTEs, FTEs required for implementation, as well as the number of service delivery points impacted by this option. Briefly explain how the numbers were determined.*

|  | Estimated Number | Rational/Justification |
| --- | --- | --- |
| Service Unit or Program Office FTEs |  |  |
| Implementation FTEs |  |  |
| Number of Service Delivery Points |  |  |

**Estimated Operational Risk**

*Use the table below to identify and describe operational risks associated with this funding option over the next five budget years. For each risk, include a title, description, consequence, and likelihood of occurrence. This information should align with FAA standards for risk management. Please reference FAST for the latest FAA risk management policy and guidance at: http://fast.faa.gov.*

| Title | Description | Consequence | likelihood | Aggregate Risk Level | | |
| --- | --- | --- | --- | --- | --- | --- |
| Low | Medium | High |
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| **Option 2: *Name*** | |
| Description of Option 2: | *Summarize important investment attributes such as % coverage of the NAS, % coverage of facilities, %coverage of airports, % coverage of service delivery points, etc., to inform decision-makers concerning what will be covered or not covered by the option.* |

**Estimated Program Costs**

*Use the table below to list all products, systems, or services requested for the next five budget years for this option. For each component, include the quantity, unit cost, installation cost, other indirect costs (including management costs), and total F&E funding.*

| Product, System, or Service Component | | Quantity | Unit  Cost | Installation Cost | Indirect  Cost | Total Cost |
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| **Subtotal** | |  |  |  |  |  |
| **Total Requested F&E Funding** | |  |  |  |  |  |

**Estimated FTEs**

*Use the table below to estimate total service unit or program office FTEs, implementation FTEs, as well as the number of service delivery points impacted by this option. Briefly explain how the numbers were determined.*

|  | Estimated Number | Rational/Justification |
| --- | --- | --- |
| Service Unit or Program Office FTEs |  |  |
| Implementation FTEs |  |  |
| Number of Service Delivery Points |  |  |

**Estimated Operational Risk**

*Use the table below to identify and describe operational risks associated with this funding option over the next five budget years. For each risk, include a description, consequence, and likelihood of occurrence. This information should align with FAA standards for risk management. Please reference FAST for the latest FAA risk management policy and guidance at: http://fast.faa.gov.*

| Title | Description | Consequence | Likelihood | Aggregate Risk Level | | |
| --- | --- | --- | --- | --- | --- | --- |
|  | Low | Medium | High |
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| **Option 3: *Name*** | |
| Description of Option 3: | *Summarize important investment attributes such as the % coverage of the NAS, % coverage of facilities, % coverage of airports, % coverage of service delivery points, etc., to inform decision-makers concerning what will be covered or not covered by the option.* |

**Estimated Program Costs**

*Use the table below to list all products, systems, or services requested for the next five budget years for this option. For each component, include the quantity, unit cost, installation cost, other indirect costs (including management costs), and total F&E funding..*

| Product, System, or Service Component | | Quantity | Unit  Cost | Installation Cost | Indirect  Cost | Total Cost |
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| **Subtotal** | |  |  |  |  |  |
| **Total Requested F&E Funding** | |  |  |  |  |  |

**Estimated FTEs**

*Use the table below to estimate total service unit or program office FTEs, implementation FTEs, as well as the number of service delivery points impacted by this option. Briefly explain how the numbers were determined.*

|  | Estimated Number | Rational/Justification |
| --- | --- | --- |
| Service Unit or Program Office FTEs |  |  |
| Implementation FTEs |  |  |
| Number of Service Delivery Points |  |  |

**Estimated Operational Risk**

*Use the table below to identify and describe operational risks associated with this funding option over the next five budget years. For each risk, include a description, consequence, and likelihood of occurrence. This information should align with FAA standards for risk management. Please reference FAST for the latest FAA risk management policy and guidance at: http://fast.faa.gov.*

| Risk Title | Description | Consequence | Likelihood | Aggregate Risk Level | | |
| --- | --- | --- | --- | --- | --- | --- |
|  | Low | Medium | High |
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| **Summary** |

*Use the table below to summarize the 3 funding options for the investment initiative. Provide the option name, description, total F&E Cost, quantifiable benefits / total cost avoided, key operational risks associated with reduced levels of funding, estimated number of FTEs required for implementation, and number of service delivery points that will be impacted. The option description includes attributes such as % coverage of the NAS, % coverage of facilities, % coverage of airports, etc., to inform decision-makers concerning what will be covered or not covered by the option.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Description** | **Total**  **Requested**  **F&E** | **Quantifiable**  **Benefits / Total**  **Cost Avoidance** | **Key**  **Operational**  **Risks** | **FTEs Required for Implementation** | **Impacted SDPs** |
| **1** |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |
| **3** |  |  |  |  |  |  |

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| --- | --- |
| *Use the table below to summarize the overall procurement risk to FAA.* | |
| *Description of Procurement Risk* | *Impact to the FAA; for example, if a minimum quantity is not purchased.* |
| *Use the table below to record the final funding option decision and supporting rational.* | |
| *Funding Option Decision* | *Supporting rationale* |

|  |  |
| --- | --- |
| **Supplementary Program Information: Historical Program Details** | |
| Program Start: | *State how long the asset has been in operational service.* |
| Description of Program Components: | *Describe at a high-level all products, systems, and services included in the program to date.* |

Historical Cost Data

*For each product, system, equipment, or service component, list in the table below the quantity procured in the previous budget year, unit cost, installation cost, other direct costs, and total cost.*

| Product, System, or Service Component | Quantity Procured | Unit Cost | Installation Cost | Other Direct Costs | Total Cost |
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*Use the table below to provide total historical F&E costs incurred in the previous five budget years to include program office FTEs, FTEs required for implementation, and the number of impacted service delivery points.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | BY-1 | BY-2 | BY-3 | BY-4 | BY-5 | Total |
| Total Historical F&E Costs |  |  |  |  |  |  |
| Program Office FTEs |  |  |  |  |  |  |
| FTEs Required for Implementation |  |  |  |  |  |  |
| Number of Service Delivery Points Impacted |  |  |  |  |  |  |