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DEPARTMENT OF THE NAVY



Business Case Analysis:

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**Approval and Change Summary for the
[BCA name]
Business Case Analysis**

Ver.	Version		Change		
X.XX.XX	DD-MMM-YY	[Initial approval, decision authority directed change; governance board directed change; minor update; administrative change; new major version; other]	[Decision authority; governance board; integrated product team; project lead; other] <<Provide name and title>>	[Approved; approved with conditions; disapproved; cancel; other]	[Decision authority decision memorandum; governance board meeting minutes; integrated product team or project lead or program manager email/ memorandum] <<Provide link to document or document location.>>

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EXECUTIVE SUMMARY

<<Present an executive-level overview in **1-2 pages** that describes:

- A validated need/requirement. (Should be substantiated with statute, regulations, policy, strategic priorities, etc.)
- Evidence that the need is not being met, including the magnitude and quantifiable measure(s) of the problem/gap, and which mission/functional areas are affected.
- The proposed project/initiative that will address this problem and the organization/person(s) leading it; what mission outcomes, key objectives (preferably measurable) it satisfies; cost, savings, process improvements, other benefits and overall implementation timeline.
- A summary of the project/initiative's requirements (e.g., materiel and non-materiel)
- Boundaries/scope of the project -- what is included/excluded. (If project will be executed in phases/spirals, identify how this BCA fits into a larger plan.)
- Summary of the analysis of alternatives. (Briefly describe alternatives considered and rationale for final selection.)
- High level implementation strategy and key milestones (e.g., start and delivery dates).
- Key assumptions and constraints foundational to the analysis (may be referenced if difficult to summarize).

As appropriate, include a summary level comparison chart/graph/table of status quo and primary alternatives to support the recommendation.>>

Keep information at a summary level and focus on the most important points. Reference detailed discussion, if necessary. DO NOT EXCEED 1-2 PAGES.

The executive summary should be written last to make sure the analysis supports the recommendation rather than the other way around.

1.0 OVERVIEW

1.1 Purpose

<<Clearly state the purpose of the Business Case Analysis (BCA), including subject, to whom submitted, and any other clarifying information.>> For example:

This Business Case Analysis (BCA) for [name of business case] includes a justification, analysis of alternatives (AoA) and recommendation to address [describe a critical mission need(s), requirement(s), gap(s), or problem]. It is being submitted to the [decision authority name] for review, feedback and final approval. Terms used are defined in the glossary in Appendix A.

1.2 Problem Statement

<<Describe the gap/problem(s), its magnitude (i.e., which mission/functional areas, people, organizations, processes, etc. are affected) and the primary mission or business impacts if not corrected.>>

1.3 Background and Context

<<Provide additional context that explains the current situation (e.g., policy, process, environmental factors). Identify root causes (if known) and contributors to the observed problem(s). Include relevant research and information on industry or market conditions as appropriate. Keep the focus strategic.>>

1.4 Project Initiative Description and Requirement(s)

<<Provide a short, high level description of the project -- what it is and what it is intended to accomplish. Address **high level requirement(s)**, e.g., mission need, mandate. Detailed requirements are provided in Section 2.0 and Appendix B. Provide key baseline value(s), overall objectives (strategic and operational) and high level timeline (start and end dates). Explain if objectives are to be achieved in increments.>>

1.5 Benefits

<<Describe the desired/expected outcomes, benefits, efficiencies, and cost savings of implementing this project (in measureable terms if possible). A bulletized format is recommended.>>

1.6 Scope

<<Define the project/initiative's boundaries (e.g., technology, organizations, users, processes, functions, etc.). Explain what it includes and excludes.>>

1.7 Assumptions and Constraints

<<Briefly explain key assumptions and constraints essential to understanding the basis of the analysis contained in the business case. Additional detail is provided in Chapters 3 and 4.>>

1.8 Funding Requirements

<<Describe total funding required and available via reprogramming or other sources.NOTE: Details are provided in Chapters 4 and 5 and designated appendices.>>

1.9 Points of Contact

<<Include contact information for: the person and organization leading the effort, the functional and technical experts and BCA developers who wrote or consulted in the writing of the BCA, the financial person/organization who/that validated the financial measures, and other persons who may be contacted to answer questions about the BCA.>> For example:

The following personnel were involved with the development of this BCA and may be contacted.

2.0 REQUIREMENTS

<<Clearly state the analyses performed, information sources and benchmarks used, etc.>> For example:

A DOTMLPF¹, process reengineering and other analyses were performed to identify the materiel and non-materiel requirements for this [project, acquisition, investment]. Information collected from [name of Stakeholder/ User Group forum] comprised of [identify areas of expertise and/or organizations that participated] that met from [dates] was used to determine functional requirements. Information from lean six sigma projects conducted by [state who and when] was used to identify current process root cause issues. Operations at [give example] were used as benchmarks to determine labor and other non-materiel requirements. Materiel and technical requirements were gathered from [sources]. General requirements are summarized below. Additional detail is provided in Appendices B and C.

2.1 Statutory, Regulatory and other Compliance Requirements

<<Identify any statutory, regulatory, compliance requirements and/or organizational strategic goals and objectives this project/initiative must satisfy. If the list is long, summarize and detail in an appendix (e.g., Appendix B). Include Enterprise Architecture and Information Assurance requirements as applicable.>>

2.2 Functional Requirements

<<Summarize functional requirements and state that additional details (if known) are in an appendix (e.g., Appendix B). Focus particularly on requirements necessary to achieve desired outcomes and measureable performance objectives. As appropriate include performance measures in Chapter 6.>>

2.3 Materiel, Technical and Interface/Data Exchange Requirements

<<Summarize general materiel requirements (e.g., equipment, hardware, software, apparatus, and supplies of the project), related technical requirements and interface/data exchange requirements to the level of detail needed to do a valid analysis of alternatives. A summary table may be appropriate. (Costs should be included in costing estimates provided in Chapter 4 and appendices as appropriate.) Explain if additional details are presented in an appendix (e.g., Appendix C).>>

2.4 Labor, Contractor Support and Non-Materiel Requirements

<<Summarize non-materiel requirements (e.g., doctrine/policy/guidance, organizational changes, training requirements, new governance/leadership activities, new/matrixed personnel requirements and skills, and facilities) necessary to ensure success of the project. If critical requirements have been excluded from the scope of the BCA, they should be identified and the rationale for not including them explained. Ensure the project scope (Chapter 1, Section 1.6) and the cost estimates of the alternatives in Chapter 4 correctly reflect both materiel and non-materiel requirements. If applicable, note that additional detail and related cost estimates are provided in an appendix, e.g., Appendix C.>>

2.5 Process Reengineering Requirements

<<Explain process reengineering efforts and identify which requirements listed above correct “as-is” process weaknesses/gaps to create a streamlined and more efficient solution. (Make sure to establish appropriate efficiency measures in Chapter 6, Section 6.5, to substantiate improvements.) **This section is mandatory for new or modernizing business systems requiring certification to obligate funds in excess of \$1 million.>>**

¹CJCSI 3170.01G Joint Capabilities Integration and Development System of 7 Mar 2011 requires, military planners to perform an analysis of needs associated with doctrine, organizational changes, training, materiel requirements, leadership and education, personnel and/or facilities – referred to as a DOTMLPF analysis -- before authorizing a new course of action. The DOTMLPF analysis results are reflected in this business case in various sections including: the scope, requirements, operational impacts, risks, key enablers, project plan, deliverables and costs.

3.0 ASSUMPTIONS, CONSTRAINTS, AND EVALUATION METHODOLOGIES

Sections 3.1 and 3.2 below describe assumptions and constraints (financial and non-financial) critical to the business case analysis. An assumption is an informed position about what is believed to be true for a situation in which explicit factual knowledge is unobtainable. Examples of assumptions include:

- Extrapolation of facts from a limited data set (e.g., survey),
- Expectations of future outcomes based on historical precedence or other rationale,
- Information believed to be true based on credible authorities.

Constraints are factors that limit the analysis, possible solutions and/or expected outcomes. Examples of constraints include:

- Availability of data and information, expertise, funding, manpower, etc.;
- Requirement to satisfy legislation, regulations, and policy;
- Technical capability of a solution.

Keep the assumptions and constraint descriptions at a fairly high level. Add appendices as needed or refer to other documents for detailed computations. Assumptions and constraints unique to specific alternatives should be explained in Chapter 4, where each alternative is described in detail.

NOTE: Risks associated with assumptions should be addressed in Chapter 4.

3.1 Costing Assumptions and Constraints

<<Describe key costing assumptions and constraints critical to the BCA. Explain the confidence level in values and whether they represent low-, mid- or high-range estimates. Reference where more detailed costing information can be obtained either in this document (e.g., Appendix C) or provide a link to a Project Cost Detail Worksheet that provides the detail behind the summary values used to develop the economic viability measures.>>

3.2 Other Assumptions and Constraints

<<Describe non-costing related assumptions and constraints critical to the BCA. Explain why they are important and the extent to which they could affect the analysis or project results if they change.>>

3.3 Economic Viability Assessment Methodology

<<Explain the economic viability measurement methodology used to compare alternative solutions. In general, the Economic Viability (EV) Tool² should be used and supported with detailed information.>>

The EV Tool generates measures for: net present value (NPV), break-even (BE), benefit cost ratio (BCR) and financial return on investment (ROI). Definitions are provided in this document's Appendix A. Appendix G provides instructions for accessing and using the EV tool to generate financial measures. In the final BCA, the EV tool user instructions should be deleted, but a short description of the economic viability methodology should be included in this section. If the EV tool is used, standard language may be included. For example:

Summary level funding streams of each alternative addressed in this BCA were compared to the current "as is" funding baseline for [state name of funded program/initiative] to generate net present value, break-even and benefit/cost ratio financial measures using the Department of Defense's

² The EV Tool is a Department of Defense tool developed by Teracore, Inc. The Business Mission Area has mandated use of the EV Tool since 2005 for business systems requiring Investment Review Board certification per 10 United States Code (U.S.C.), section 2222. While its original purpose was to value business system investments, it can also be used to value other types of projects and investments. ROI measures generated by the EV Tool may be included in the BCA, but should not be used for go/no-go decisions due to an ongoing debate over the EV tool's ROI formula. BCR is considered a much better indicator.

Economic Viability (EV) Tool³. The discount rates embedded in the EV Tool are established by the Office of Management and Budget⁴, updated annually and cannot be altered.

The following summary level cost information was entered into the EV Tool:

- **Program system improvements costs:** *The annual modernization and sustainment costs of each alternative.*
- **Status quo costs:** *The current annual [budgeted and/or unbudgeted] modernization and sustainment costs of [the name of the existing program/initiative]².*
- **Phase-out costs of the status quo:** *A revised estimate of the total modernization and sustainment costs of [name of existing program/initiative] if a new alternative is phased in. Costs reflect additional costs for [list e.g. disposal] as well as decreased costs for [e.g. phase out of services]. Phase-out costs end [state when they end -- usually when the system reaches full operating capability (FOC)].*
- **Other cost savings:** *Other savings from [state what they are] are based on the assumption that [explain rationale].*

General costing assumptions, constraints and methodologies are explained in Chapter 3, Section 3.1; those specific to certain alternatives are explained in Chapter 4. Additional detail regarding summary values entered into the EV Tool is contained in [provide a link or note where included as an appendix].

3.4 Non-Financial Measure Scoring Methodologies

<<If the formats included in this BCA template are used, the standard language provided below may be used and/or tailored as desired.>> For example:

In addition to making financial comparisons between the [current state name] and each alternative, non-financial comparisons were also performed and scored as follows:

Requirements satisfaction: *The degree to which each alternative satisfied mandatory requirements was scored on a scale of 1 (low) to 5 (high)). Weighting was [not used/used] for high priority requirements. [If weighting was used, explain rationale]. Specific requirements areas scored include: [list in bullets and indicate which were weighted, as applicable].*

Operational Impacts: *The expected positive and negative impacts of implementing each alternative were evaluated across the following operational areas: [list: e.g., mission, interoperability, customer benefit, efficiency, information assurance/security, reliability/quality, sustainability, etc.] and scored on a scale of -5 (negative) to +5 (positive).*

Risk: *Potential areas of risk for [list risk areas] were identified. The probability of occurring (certain, probable, possible, improbable) and the impact if realized (catastrophic, high, moderate, low) were assessed for each alternative. Mitigation strategies were identified and all risks were rescored as if the mitigation action had been implemented to assess effectiveness.*

³ This statement assumes there is clearly identifiable funding for the “as-is” situation. However, if this is not the case, and the “as-is” costs had to be computed or include cost avoidances, this must be explained.

⁴ Per Circular A-94 available at: http://www.whitehouse.gov/omb/circulars/a094/a94_appx-c.html

4.0 ALTERNATIVES CONSIDERED

4.1 Baseline and Alternatives Overview

<<State up front how many alternatives were considered for the BCA.>> For example:

The following [cite number] alternatives were considered for this BCA:

- **Alternative 1** – [short name] – [short description]
- **Alternative 2** – [short name] – [short description]
- **Alternative 3** – [short name] – [short description]

These alternatives were each compared to [describe the “as is” situation].

<<Typically, three alternatives are considered in a BCA. Frequently, one alternative is the “as is” situation or a slight variation of it. Explain whether the baseline is one of the alternatives being considered or is included only for comparison purposes.>>

<<Explain very generally why the alternatives were selected (e.g., alignment to goals, feasibility, cost, etc.). Additional detail is provided below. As appropriate, provide information on comparable projects and/or benchmark models if available.>> For example:

These alternatives were selected because [state reason(s)]. Each of these alternatives is described below in more detail and assessed across the following dimensions: cost, savings and economic viability; requirements satisfaction; operational impacts; and risk. Consistent formats and scoring methodologies were used so results can be easily compared.

<<NOTE: If the BCA is being used to document a decision that has already been made and a course of action that is already underway, it should include at a minimum the original baseline (which may precede the current date) and the current course of action. It may also include one or more variations to the original course of action if there is new information suggesting a need to change original assumptions.>>

4.2 [Short Descriptive Name of First Alternative] Overview

<<Identify and describe the first alternative. Give it a short name and summarize what it is, what it includes, and how it differs from the other alternatives. If relevant, expand upon the reasons stated above in Section 4.1 for selecting this alternative for consideration.>>

4.2.1 Cost and Economic Viability

<< Clearly state key cost/economic information for the alternative being discussed.>> For example:

The total cost of this alternative is [state cost and timeframe]. It includes costs for [explain materiel and non-materiel costs included]. Estimates are [explain: confidence in estimates; whether they represent high, medium, or low values; sensitivity (see definition)].

Alternative 1 - Costs							
Required funding in \$ millions	FY11	FY12	FY13	FY14	FY15	FY16	FY17
Modernization	3	3	3	0	0	0	0
Operations & Maintenance	0	0	0	3	3	3	3
TOTAL	\$3						

[Notional Data]

<<NOTE: If the first alternative is the “as-is,” the following paragraphs/tables, which describe how an alternative compares to the status quo, are not applicable. If the first alternative is not the “as-is,” the following language/table may be used/tailored.>>

Per the EV tool, the overall economic viability of this project as compared to the status quo is [strong, moderate, weak, not viable] with a net present value of [\$ NPV value]; a near term break-even date of [date], and a benefit cost ratio of [ratio value].

Alternative 1 - Economic Viability			
Net Present Value (NPV) =		Break Even (Discounted) =	
		Benefit Cost Ratio (BCR) =	

These financial performance measures were based on the following assumptions:

- The status quo costs can be reduced by [explain assumptions, amounts and timeframes] and realigned to help fund the alternative.
- Other savings not directly related to the cost of this alternative from [explain other savings if applicable] help offset the total cost.

This generates a net cost increase of [state amount] from [years] and cost savings of [amount] starting in [state years] per the table below.

Current Status Quo Costs							
In millions	FY11	FY12	FY13	FY14	FY15	FY16	FY17
Original Status Quo Costs	5	5	5	5	5	5	5
Alternative 1 - Changes to Status Quo and Net Increase and Savings							
In millions	FY11	FY12	FY13	FY14	FY15	FY16	FY17
Transition Phase-out Costs ¹	5	4	2	2	1	1	0
Investment Costs ²	3	3	3	0	0	0	0
O&S Costs ²	0	0	0	3	3	3	3
Other savings ³	0	2	2	2	0	0	0
Total Cost	8	5	3	3	4	4	3
Net Cost Increase or Savings ⁴ (Net Total Program Benefits in the EV Tool)							
	(\$3)	\$0	\$2	\$2	\$1	\$1	\$2

[Notional Data]

1. Includes costs to maintain the status quo (e.g., legacy systems) plus other transition costs (e.g., data cleansing, disposal)
2. Costs for this alternative (Development and modernization and Operations and Support (O&S))
3. Recoverable cost savings
4. Calculated as: Status Quo Funding minus(transition phaseout costs, investment costs, O&S Costs) plus Other Savings

4.2.2 Requirements Summary

<< Provide a summary for the alternative discussed.>> For example:

This alternative satisfies [all, most, some] known requirements. Its greatest strengths are in [explain what they are and why they are important]. Its greatest limitations are [explain what they are and why they are an issue]. Expectations regarding how well this alternative is expected to satisfy each requirement have been scored and provided in the table below.

<<The table below, should include the key requirements from Chapter 2.>>

Alternative # __ : Requirements Satisfaction				
Requirement	Score (0 to 5) ¹	Weight ²	Weighted Score ³	Rationale
[Describe requirement]				
[Describe requirement]				

Total Score⁴

1. Score range is: 0 (does not meet requirement), 1 (minimally meets requirement) to 5 (greatly exceeds requirement).
2. Weighting factor for high priority requirements
3. Weighted score = "score" multiplied by "weight factor"
4. The unweighted and weighted scores are summed to establish the total score

4.2.3 Operational Outcomes and Benefits Summary

<<Clearly state the nature of any operational impacts the alternative under discussion presents.>> For example:

This alternative had [significant, moderate, minimal, no] negative operational impacts in the areas of [list], and [significant, moderate, minimal, no] positive benefits in the areas of [list].

<< Expand on significant issues, areas of concern and/or strengths and how they are likely to affect the success of the project. The table below may be tailored to add/remove operational areas.>> For example:

Expectations regarding how this alternative will impact operations are scored below.

Alternative 1 - Operational Impacts		
Operational Area	Score ¹	Rationale
Mission		
Interoperability		
Customer/User benefit		
Efficiency		
Info Assurance/Security		
Reliability/ Quality		
Sustainability		
Other		

Total Score:

NOTE 1: Scores range from -5 to +5. **Negative scores of -4 or -5 are red; high positive impact scores of +4 or +5 are green.**

4.2.4 Risk Summary

<<Use narrative to summarize risks. Identify mitigation actions and evaluate risk before and after mitigation to determine which strategies are likely to have the most impact. Include any risks associated with assumptions from Chapter 3.>> For example:

This alternative has been evaluated to be [high, medium, low] risk. Areas of greatest risk were [list and explain]. Areas of lowest risk were [list and explain]. If actions are taken to [describe risk mitigation actions], it is believed that risk related to [risk factor name] [could or could not] be reduced to an acceptable level because [explain].

Risk Factor	Unmitigated Expectations			Mitigation Strategy	Mitigated Expectations		
	1. Probability	2. Impact	3. Areas Impacted		1. Probability	2. Impact	3. Areas Impacted
Insufficient Budget	Certain	Catastrophic	C	Divide system into mandatory and desirable features and only implement mandatory features	Possible	Mod	C
Requirement Change	Possible	Mod	C, P, T, S, R	Lock down technical requirements for spiral one on XX date	Possible	Mod	C,P, S, R
Dependency on XXX	Possible	High	S, R, C	Focus on aspects of project that do not depend on system xxx	Possible	Mod	C, S

[Notional Risk and Mitigation Examples]

Risk Table Legend					
1. Probability		2. Impact		3. Areas of Impact	
70-100%	Certain	Project failure	Catastrophic (Cat)	Business:	Programmatic (P)
40-69%	Probable	Failure to meet major requirements, major cost increase or schedule delay	High	IT System:	Technical (T)
5-39%	Possible	Extensive adjustments needed to meet schedule	Moderate (Mod)	Delays & Slippages:	Schedule (S)
Near 0%	Improbable	Minor adjustments needed to meet goals	Low	Staff & Equipment:	Resources (R)
				Funding Shortfall:	Cost (C)

4.3 <Short Descriptive Name of Second Alternative> Overview

<< For other alternatives, follow the same structure as above. If there is only one alternative, Section 4 ends with sub-section 4.2.4. >>

5.0 ANALYSIS OF ALTERNATIVES

The values in this section are compiled from Chapter 4 to provide side-by-side comparisons of the alternatives to the “as-is” situation.

5.1 Comparison of Alternatives’ Economic Viability Measures

<<Identify the alternative(s) with the best viability. Assess overall economic viability and provide rationale, taking into consideration: (1) degree of confidence in financial assumptions and estimates, (2) sensitivity of the data, and (3) economic realities such as availability of funds.>> For example:

The most economically viable alternative is [alternative number and short name]. Its overall economic viability is assessed as [strong, moderate, weak, not viable] based on [explain].

<<If only one alternative is being considered, there will only be one set of economic viability measures. There are no measures for status quo. For multiple alternatives, the table below should be used.>>

Alternative Economic Viability Comparison							Most Viable
Alternative 1	NPV =		Break Even (Discounted) =		BCR =		
Alternative 2	NPV =		Break Even (Discounted) =		BCR =		
Alternative 3	NPV =		Break Even (Discounted) =		BCR =		←

5.2 Comparison of Costs and Savings (calculated from the EV Tool)

<<Identify the alternative that requires the lowest overall investment.>> For example:

Of the [number of] alternatives considered, Alternative [number and short name] requires the lowest overall investment [and generates / or: but does not generate] the greatest savings.

Investment Cost Comparison								Lowest Investment
In millions	FY12	FY13	FY14	FY15	FY16	FY17	Total	
Status Quo Costs	\$ _	\$ _	\$ _	\$ _	\$ _	\$ _	\$ _	
Alternative 1								←
Alternative 2								
Alternative 3								

<<Explain the relationship between investment costs and net cost increase or savings.>> For example:

Taking into consideration the overall investment required and the net cost increases/savings of each alternative, Alternative [number] is most feasible from a funding availability standpoint and provides a [strong, moderate, or weak] financial benefit and return. If this option is implemented, status quo costs can be reduced by [explain assumptions, amounts, and timeframes] and realigned to help fund the alternative. Additionally, other savings not directly related to the cost of this alternative from [explain other savings if applicable] can be applied to help offset the total cost.

Net Cost Increase or Savings								Greatest Savings
In millions	FY12	FY13	FY14	FY15	FY16	FY17	Total	
Alternative 1	\$/\$ _	\$/\$	\$/\$	\$/\$	\$/\$	\$/\$	\$/\$	
Alternative 2	\$/\$	\$/\$	\$/\$	\$/\$	\$/\$	\$/\$	\$/\$	←
Alternative 3	\$/\$	\$/\$	\$/\$	\$/\$	\$/\$	\$/\$	\$/\$	

Red=budget/cost increase; black = budget decrease (savings)

<< The following risk cubes should be used, and tailored as appropriate.>>

Alternative 1					Alternative 2					Alternative 3							
Alt 1		Probability				Alt 2		Probability				Alt 3		Probability			
		Improb-able	Possible	Probable	Certain			Improb-able	Possible	Probable	Certain			Improb-able	Possible	Probable	Certain
Impact	Cat																
	Hig		C, S, P, T	C				C, R	C					R		C	R
	Me		C					P	S						S		
	Low							S, T									

(Cat = catastrophic)

[Examples here are notional.]

Risk Cube Legend					
Probability		Impact		Areas of Impact	
70-100%	Certain	Project failure		Catastrophic (Cat)	
40-69%	Probable	Failure to meet major requirements, major cost increase or schedule delay		High	
5-39%	Possible	Extensive adjustments needed to meet schedule		Moderate (Mod)	
Near 0%	Improbable	Minor adjustments needed to meet goals		Low	
				Business	Programmatic (P)
				IT system	Technical (T)
				Delays & Slippages	Schedule (S)
				Staff & Equipment	Resources (R)
				Funding shortfall	Cost (C)

5.6 Important Considerations

<< **Optional.** Explain any other information not previously addressed that should be considered when making a selection recommendation.>>

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary Comparison and Recommendation

<<Identify the alternative found to be the best option, with summary rationale data.>> For example:

After performing an analysis of the financial and non-financial benefits and risks of various alternatives, [alternative number and name] is assessed to be the most viable option. It generates the greatest savings [note amount and timeframe], fully satisfies all requirements, provides the greatest operational benefits, and involves risks that, once mitigated, are considered acceptable.

The following table summarizes and compares the alternatives across financial and non-financial dimensions.

Overall Comparison of Alternatives and "As Is"	Financial				Non-Financial			Best Option
	Economic Viability (Strong, Mod, Weak, Not Viable)	Cost (FY11-17) Millions	Unfunded (FY11-17)	Savings (FY11-17)	Requirements (Exceeds, Meets, Not acceptable)	Operational Benefits (Significant, Moderate, Low, None)	Mitigated Risk (Low, Med, High, Catastrophic)	
"As- Is"	N/A			N/A			N/A	
Alternative 1								←
Alternative 2								
Alternative 3								

6.2 Funding Needs and Sources

<<Identify the total funding required for the recommended alternative.>> For example:

The table below identifies the total funding required for the recommended alternative. It includes costs for materiel [list] and non-materiel [list] requirements. If funding from the [identify funding source] budget for FYs [XX-XX] is reprogrammed, [identify if: all costs are covered or \$xx in additional funding is required.]

<<If additional funding is required, explain logical funding sources based on expected cost avoidances. As necessary, provide additional detail re: reprogramming actions in Attachment D.>> For example:

This project is expected to generate cost avoidance in the amount of [amount and timeframe] from [describe the efficiency that creates the cost avoidance]. To cover the remaining unfunded costs, funding equal to the cost avoidance could be recouped through budget marks against [state logical source]. If this is done, the final net unfunded amount for this initiative would be [state amount].

Funding Available/Required (Millions)		FY12	FY13	FY14	FY15	FY16	FY17	Total
Total Required	Invest. ¹							
	O&S							
Funds available from reprogramming	Invest.							
	O&S							
NET unfunded	Invest.							
	O&S							
Cost avoidances that could be recouped from budget marks against [source]	Invest.							
	O&S							
Final NET Unfunded	Invest.							
	O&S							

NOTE: Investment (Invest.)" reflects all one-time/non-recurring costs, regardless of appropriation expected to be incurred to implement the preferred alternative. It includes: Other Procurement Navy; Research Develop Testing and Evaluation, Navy; Navy Working Capital Fund; capital budget authority). Operations and Support (O&S) reflects costs of operating and maintaining the preferred solution after implementation.

6.3 Key Enablers and Leadership Support

<< If there are any specific decisions/actions required of leadership to ensure the project’s success, identify them in this section (e.g., governance changes, dependencies on other projects, new policies or process improvements that require other organizations’ buy-in/support, major change management obstacles, critical risk mitigation activities, etc.) >> For example:

The following areas require [decision body’s name] attention and support in order to ensure the success of this project: [list areas].

6.4 Implementation Plan and Deliverables

<<Provide a high level implementation plan that includes key deliverables and milestones.>> For example:

A high-level Implementation Plan with major deliverables and key milestones is provided below. A more detailed plan will be developed within [number] days after initial approval from the [decision authority name] and will be appended to this document in Appendix E.

Implementation Plan for FY20XX								
Deliverables (D) & Milestones (MS)		Date Due	Qtr2	Qtr 3	Qtr 4	FY12	FY13	Beyond
D	Charter		X					
D	POAM			X				
D	Develop standard process			X				
D	Develop draft policy						X	
MS	FOC							X

[Notional Example]

6.5 Specific Project Performance Measures

<<Measures should clearly relate to strategic/mission requirements, desired outcomes, benefits, timeframe, costs, and savings described in Chapter 1 and the process improvement requirements identified in Chapter 2, Section 2.5.>> For example:

Performance measures in the table below will be used to track and assess project progress. These measures were selected because [explain why these measures were selected and if additional measures will be added in the future]. Additional detail [is/will be] provided in Appendix F.

Performance Measures						
Strategic Goal/Outcome	Related Measure	Baseline Amt and Date	Goal at FOC and Date	Target Amt and Date	Measure Frequency	Org Lead
Reduce costs	Reduce total cost of _____ by 10%	\$7M (as of ___)	\$6.3M by ___	\$6.8M by ___	Annually	
Improve decision support	Reduce % of records with data errors by 50%				Monthly	

[Notional Examples]

APPENDIX A: GLOSSARY

<<These definitions may augmented/changed as needed to support a particular BCA.>>

Term	Description
Analysis of Alternatives	Evaluation of different choices available for achieving an objective, usually requiring a cost benefit analysis, life cycle costing and sensitivity analysis.
Assumption	An assumption is an informed position about what is believed to be true for a situation where explicit factual knowledge is unobtainable.
Baseline	A description of the beginning condition in measureable terms and a start date from which progress can be measured.
Benefit-Cost Ratio (BCR)	BCR is the index resulting from dividing discounted benefits (savings/cost avoidances) by discounted investment costs (Economic Viability (EV) Tool Users Guide). Therefore, an initiative must have a BCR > 1.0 to be considered financially viable.
Break Even (B-E)	The fiscal year in which the initiative "breaks-even" based on discounted cash flows, i.e., the point at which the Net Present Value (NPV) becomes positive (Economic Viability (EV) Tool Users Guide).
Business Case	A fact-based argument advocating a course of action to improve business performance results. Most are prepared to support project or acquisition investment go/no-go decisions. The project business case is not a one-time document. It provides critical information for decision making throughout the project life span.
Constraint	Constraints are factors known or discovered that are expected to limit the analysis, possible solutions and/or expected outcomes.
Cost Savings	A reduction in costs below the projected (i.e., budgeted) level as a result of a specific initiative. Because cost savings are a reduction in the level of budgeted costs, savings are available to be recouped from the budget.
Cost Avoidance	A reduction in future unbudgeted costs that cannot be recouped from the budget.
DOTMLPF	The DOTMLPF acronym is defined by the CJCSI 3170.01G -Joint Capabilities Development System (JCIDS) as: doctrine, organization, training, materiel, leadership and education, personnel and facilities. JCIDS requires all DOTMLPF aspects (materiel and non-materiel) be considered when developing a solution/recommendation.
Goal	A description of the desired/expected end-state condition.
Investment funds	Funding used for non-recurring costs to upgrade, refresh, or modernize existing systems/processes, or new developments (Economic Viability (EV) Tool Users Guide).
Net Present Value (NPV)	NPV is the difference between discounted benefits and discounted costs (i.e., discounted savings/cost avoidances less discounted costs). An initiative must have an NPV > 0.0 to be considered financially viable. (Economic Viability (EV) Tool Users Guide).
Operations & Support (O&S)	All costs to sustain the system/project after it has been released to production (i.e., after deployment or upon achievement of Full Operational Capability (FOC) (Economic Viability (EV) Tool Users Guide).
Sensitivity Analysis	A technique used to determine how different values of an independent variable will impact a dependent variable under a given set of assumptions. It is particularly important to test sensitivity if it is likely the actual outcome will differ from assumptions.
Sunk Costs	Money already spent and permanently lost (past opportunity costs). Generally considered irrelevant to future decision-making.
Target	Expected/planned progress in quantifiable terms towards a specific end-state.

APPENDIX B: REQUIREMENTS DETAIL

<<This appendix provides additional detail regarding requirements, including those resulting from the DOTMLPF analysis, lean six sigma and business process reengineering efforts, and change management planning. Additional detail is expected to be added to this appendix over the duration of the project as more information is known and requirements can be more clearly defined.>>

APPENDIX C: BASELINE COSTS AND COSTING ASSUMPTIONS DETAIL

<<This appendix provides additional detail regarding costing assumptions/constraints for the baseline and each alternative. A sample format is provided below.>>

Alternative 1 Requirements and Cost Estimate (in Millions)									
	Category	Deliverables	FY12	FY13	FY14	FY15	FY16	FY17	Total
Materiel	Hardware	Mainframe	\$_	\$_	\$_	\$_	\$_	\$_	\$_
	Software licenses	Best Word Processing Application							
	Other	Printers							
Non-Materiel	Contractor labor (XX FTEs)	Training, contracting services, IATO documentation, BCA development							
	Government Labor (XX FTEs)	Project Management, BCA development, policy updates							
	Services	Data storage							
	Travel	Research related							
	Other	Printing							
Total			\$_	\$_	\$_	\$_	\$_	\$_	\$_

Materiel and Technical Requirements Specifications and Assumptions

<<Describe/explain the materiel and technical requirements for the items listed above>>

Contractor Labor Requirements/Assumptions

<<Describe/explain the contractor labor requirements for the non-materiel items listed above>>

Government Labor Requirements/Assumptions

<<Describe/explain the government labor requirements for the non-materiel items listed above>>

Other Non-Materiel Requirements/Assumptions

<<Describe/explain other non-materiel requirements listed above>>

APPENDIX D: REPROGRAMMING ACTIONS DETAIL

<<Explain reprogramming actions needed to fund the recommended alternative.>>

Reprogramming Actions													
BIN No.	BIN Title (per SNaP-IT)					AIS Title (in NITE/STAR)							
BSO	RS	Appropriation	BA	PE	BLI	Action	PY	FY12 BY	FY13 BY+1	FY14 BY+2	FY15 BY+3	FY16 BY+4	FY17 BY+5
						Realign/Reprogram from [program name]	\$-	\$-	\$-	\$-	\$-	\$-	\$-
						Realign/Reprogram to [program name]	\$-	\$-	\$-	\$-	\$-	\$-	\$-

Acronyms used above: Budget Initiative Number (BIN); Select & Native Programming Data Input System -- Information Technology (SNaP-IT); Automated Information System (AIS); Naval Information Technology Exhibits/Standard Reporting (NITE/STAR); Budget Submitting Office (BSO); Resource Sponsor (RS); Budget Activity (BA); Program Element (PE) and Budget Line Item (BLI); Prior Year (PY); Fiscal Year (FY); Budget Year (BY).

APPENDIX E: PROJECT PLAN

<< This appendix includes a detailed project plan or a link to it. This section will change over the course of the project and is **mandatory after initial BCA approval.**>>

APPENDIX F: PERFORMANCE MEASURES

<<Provide additional detail explaining how the performance measure baseline values were calculated and why certain targets and goals were established. If there are dependencies between the measures, explain them. For example, goals for “speed” may have negative impacts on “quality.” Likewise, goals for “cost savings” may negatively affect “customer service.” Where dependencies exist, measures for both attributes should be collected and monitored. Explain how the measures data will be collected, who is responsible for collecting/reporting them, how often they will be collected, and where the information will be stored. Measures information will be updated over the course of the project and most likely will not be fully developed at time of initial approval.>>

NOTE: Measures to track progress during project execution are probably different than measures used to assess project success after delivery.

APPENDIX G: EV TOOL SUPPLEMENTAL GUIDANCE

<<This appendix is for information only and should be deleted from the completed BCA.>>

1. Where to get the EV Tool and Supporting Information

The Economic Viability (EV) Tool, user guidance and template for the *Project Cost Detail Worksheet* are available at: <http://www.intelink.gov/go/3ifzyQ>.

2. EV Tool Workbook Structure

The EV Tool contains five tabs:

- **Instructions**
- **User Input:** This is the only place the user enters data.
- **Domain View:** It includes savings and cost benefit graphs. This information is used to populate the business case.
- **PA&E View:** Not used.
- **Domain Detail:** This view includes additional details for the break even analysis.

3. Using the EV Tool

A separate EV analysis is prepared for **EACH** alternative. In each case, the alternative's summary costs are compared to the status quo costs. In many cases, the "status quo costs" will need to be constructed based on a combination of actual data and estimated costs to fill in data gaps.

IMPORTANT: The user enters data into one tab only (User Input). Information from that tab calculates the EV measures and populates the other worksheets.

4. EV Tool Data Entry Requirements

On the "User Input" tab, the user first specifies the project start date and end date labeled as "FOC" (full operational capability). Most decision authorities want an early return on their investment, so the FOC date should not be very far in the future: one to two years is ideal; five years is the maximum acceptable. To achieve this timeframe may require the project to be executed in increments or spirals -- each with its own separate EV calculation.

After establishing the project timeframe, the user enters four summary-level funding streams from current year through FOC (sunk costs are generally not included⁵) that address:

- **Program system improvements costs:** The annual costs of one improvement alternative.
- **Status quo costs:** The annual budgeted costs of the existing program/initiative, as if it is going to be continued and not replaced. Normally only budgeted costs should be included. However, if it is known with certainty there is an unfunded requirement that will be funded in the future, those unbudgeted costs can be included but should be footnoted and explained in the analysis section. In some cases, there are no clearly "budgeted" costs, because the costs are embedded in

⁵ The spreadsheet allows "sunk costs" to be entered. Sunk costs are past opportunity costs that are partially or totally irrecoverable. Therefore, they are not considered relevant to future decision-making and should not be included unless requested by the decision authority.

general funding lines. While not preferred, the status quo costs can be calculated and entered into the tool. The methodology and assumptions used to estimate these costs must be explained.

- **Phase-out costs:** The total costs associated with phasing in the preferred solution and the resulting status quo costs to maintain it while the alternative is developed and implemented. Any disposal costs should also be included. In general, there should not be any phase-out costs once the system reaches FOC.
- **Other cost savings:** Other savings from the improvement not associated with the reduction in status quo costs. They must be explained in the EV tool and in this business case. Cost avoidances should not be entered here but should be explained and may become funding sources via budget marks.

5. Interpreting EV Tool Generated Financial Results

Once the cost data is entered, financial measures are calculated automatically. The following values should be incorporated into the BCA:

- **Net present value (NPV)**
- **Benefit Cost Ratio (BCR) with other benefits (includes cost savings)**
- **Break Even (BE) – discounted**

The NPV is the difference between discounted benefits and discounted costs. A positive NPV is more economically viable than the status quo. The BCR, which is the discounted benefits (savings/cost avoidances) divided by the discounted investment costs, should be greater than one (1). The fiscal year the initiative's Net Present Value (NPV) becomes positive (break even point) should be five (5) years or less depending on the parameters established by the decision authority. NOTE: In cases where there is no single break-even point (i.e., the net cash flow fluctuates from positive to negative to positive again), the tool will return a value of "multiple," which has to be explained.

If a project/initiative cannot be financially valued or it has poor financial measure results (NPV < or = 0.0 and the BCR < or = 1.0), AND it is necessary to meet a critical requirement, compelling non-financial measures are necessary. Measures must include baseline values (status quo performance) and have clear interim targets and goals (end-state measure) aligned to strategic goals and/or mission needs.

6. Substantiating Detail Information

The values entered into the EV Tool are summary level. The validity of the financial measures depends on whether these summary values are accurate and assumptions were realistic. The summary values entered into the tool must be substantiated by a *Project Cost Detail Worksheet*, which has been reviewed and validated by a cost estimating expert/authority. The worksheet shall be available upon request.

UNCLASSIFIED

Instructions regarding BCA Classification Marking:

UNCLASSIFIED: If the final BCA does not contain sensitive or classified information, mark the front and back covers "UNCLASSIFIED" (as shown on this BCA template).

FOUO: A "For Official Use Only" (FOUO) designation applies to unclassified information sensitive in nature and exempt from public release under the Freedom of Information Act. If the BCA contains such information, "FOUO" must appear on the front and back covers (where UNCLASSIFIED now appears) and on the page(s) on which the sensitive information exists.

CLASSIFIED: BCAs containing any CLASSIFIED information are to be handled through separate channels, in accordance with the submitting organization's CLASSIFIED handling process and all applicable security policy procedures.



**DEPARTMENT OF THE NAVY
BUSINESS CASE ANALYSIS**

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