

# Business Case Instructions

Version 2.2 • 31 AUG 2013



# Business Case Version History

Current Framework tools are available on the Framework Web site.

Release Date	Description
31-Aug-2013	Version 2.2 released. Revised Instructions, Template, and Workbook to reflect changes recommended by the Change Advisory Board (CAB) and approved by DIR (change request 70). Version 2.2 marks the addition of a Version History worksheet in the Business Case Workbook.
28-Jan-2013	Version 2.1 updated. Revised Business Case Workbook to use FY 2014–2015 biennium fringe benefits percentage set by the Legislative Budget Board.
31-Dec-2012	Version 2.1 released. Revised Instructions, Template, and Workbook to reflect changes recommended by the Change Advisory Board (CAB) and approved by DIR (change request 68).
10-Jul-2012	Version 2.0 updated. Revised Business Case Workbook – Cost-Benefit Summary sheet. Modified Total Non-Project/Operational Agency Personnel Costs (NP3) to use Subtotal Non-Project/Operational Agency Personnel – Maintenance from the Cost Analysis sheet (instead of Total Non-Project/Operational Agency Personnel Costs (NP3)).
26-Mar-2012	Version 2.0 updated. Revised Business Case Workbook to use FY 2012–2013 biennium fringe benefits percentage set by the Legislative Budget Board.
6-Mar-2012	Version 2.0 updated. Revised Business Case Workbook to use FY 2012 fringe benefits percentage.
18-Nov-2011	Version 2.0 released. Revised Instructions to reflect changes recommended by the Framework Change Advisory Board (CAB) and approved by DIR (Change requests 54, 57, and 61).
21-Dec-2010	Version 1.9 released. Revised Instructions and Template to reflect changes recommended by the Framework Change Advisory Board (CAB) and approved by DIR (Change request 55).
30-Jun-2009	Version 1.8 released. Revised Instructions, Template, and Workbook to reflect changes recommended by the Framework Change Advisory Board (CAB) and approved by DIR (Change request 47).
31-Jan-2008	Version 1.7 released. Revised Instructions, Template, and Workbook to reflect emergency changes approved by DIR (Change request 41), and changes recommended by the Framework Change Advisory Board (CAB) and approved by DIR (Change requests 8, 14, 16, 32, and 36).

Release Date	Description
28-Sep-2007	Version 1.6 released. Revised Instructions to reflect an emergency change approved by DIR (Change request 39).
1-Sep-2007	Version 1.5 released. Revised Instructions and Template to reflect changes recommended by the Framework Change Advisory Board (CAB) and approved by DIR (Change requests 7, 10, 13, 15, 34, and 37).
30-Jun-2006	Version 1.4 released. In Workbook, modified Lines P7, P9, P11, and P13 of Cost Analysis worksheet to allow agency to add other hardware and software. No changes made to Instructions or Template.
14-Apr-2006	Version 1.3 released. In Instructions and Template, modified section 4.1 to allow entry of Information Technology Detail Project Sequence Number. Modified section 5.3 for consistency with Statewide Impact Analysis. In Workbook, modified Line P24 of Cost Analysis worksheet (calculating 5% Contingency of Project Development Cost) to allow agency to compute different contingency amount across Years 1–10. Modified rows IA3 and IA6 in Agency Impact Analysis section of the Evaluation Factors worksheet.
16-Nov-2005	Version 1.2 released. In Workbook, modified Line P24 of Cost Analysis worksheet (calculating 5% Contingency of Project Development Cost) to allow agency to compute different contingency amount. Corrected summation error in calculating Cumulative Totals for Quantitative Benefits: - Lines A32, C26 of Quantitative Benefit Analysis worksheet and - Lines A32, C26 of Cost-Benefit Summary worksheet No changes made to Instructions or Template.
14-Oct-2005	Version 1.1 released. Instructions and Template changes: Added sections 7, 8, and 9 (Glossary, Revision History, and Appendices). Replaced “stage gate” with “review gate” in Introduction section. No changes made to Workbook.
13-Sep-2005	Version 1.0 Instructions, Template, and Workbook released.

# Contents

Introduction .....	1
Use of the Business Case .....	1
Overview .....	1
Applicability .....	3
Governance and Scope .....	3
Section 1. Executive Summary .....	4
1.1 Issue .....	4
1.2 Anticipated Outcomes .....	4
1.3 Recommendation .....	4
1.4 Justification .....	5
1.5 Assumptions .....	5
1.6 Limitations .....	5
Section 2. Governance and Business Case Analysis Team .....	5
2.1 Governance .....	5
2.2 Business Case Analysis Team Members .....	6
Section 3. Problem Definition .....	7
3.1 Problem Statement .....	8
3.2 Agency and Constituent Environment .....	8
3.3 Current Technology Environment .....	8
Section 4. Project Overview .....	9
4.1 Project Description .....	9
4.2 Goals and Objectives .....	9
4.3 Performance Measures .....	10
4.4 Assumptions .....	11
4.5 Constraints .....	11
4.6 Proposed Technology Environment .....	11
4.7 Major Project Milestones .....	12
Section 5. Project Evaluation .....	12
5.1 Statutory Fulfillment .....	12
5.2 Strategic Alignment .....	13
5.3 Agency Impact Analysis .....	13
5.4 Financial Analysis .....	14
5.5 Initial Risk Consideration .....	19
5.6 Alternatives Analysis .....	19

Section 6. Project Selection .....20

    6.1 Methodology.....20

    6.2 Results .....21

Section 7. Glossary .....22

Section 8. Revision History .....22

Section 9. Appendices .....22

# Introduction

Government decision makers must use limited resources wisely and at the same time respond to ever-increasing demands for improved performance and new technology. These competing demands continue to generate close scrutiny of proposals for new technology investments. In addition, high-profile system failures have raised concerns about why these investments so often fail to live up to business expectations.

The Business Case is included as part of the Texas Project Delivery Framework (Framework) to establish a consistent method for analysis and selection of business solutions based on alignment with agency goals and objectives. An agency's investment decisions should be based on carefully developed business cases that demonstrate a project's alignment with business goals and objectives using a specific set of evaluation factors (e.g., financial benefits and statutory fulfillment).

The Business Case is a detailed investment proposal that considers quantitative and qualitative evaluation factors that underlie selection of a business solution. A business case analysis is used to compare various business solution alternatives and to provide a basis for selecting the one that delivers the greatest value to the state, the agency, and constituents. Ultimately, use of a Business Case should help the agency prioritize its technology investments by making smart decisions, and provide the basis for evaluation of business outcomes following project closure. Use of the Business Case should provide answers to the following questions:

- Why do the project now?
- What is the impact of not doing the project?
- How does the project support agency goals?
- What business problem does the project solve?
- What is the financial impact?
- When will the project show results?

## Use of the Business Case

### Overview

Within the Framework, the Business Case is a key deliverable of the Business Justification review gate. An agency should initiate a business case analysis when it identifies a need to solve a business problem through technology. An agency should evaluate all of the qualitative and quantitative factors to select the best solution by establishing a methodology. The Business Case Template and Business Case Workbook are used to capture the business case analysis results. Review the Project Financial Life Cycle Extension to understand business case analysis within the context of project financial practices.

A key expected outcome of the business case analysis is the selection of a project based on evaluation of the following set of quantitative and qualitative factors:

- **Statutory fulfillment:** fulfills business mandates and strategies from federal, state, or other statutes or rules
- **Strategic alignment:** aligns with the State Strategic Plan for Information Resources Management and the agency's strategic plan
- **Agency impact analysis:** impacts use of information technology resources at the enterprise level
- **Financial analysis:** delivers a comprehensive analysis of costs, benefits, and metrics including financial impact to the state and a quantitative representation of value to the state's constituents
- **Initial risk consideration:** considers project risks and provides a preliminary review that may impact business outcomes
- **Alternatives analysis:** emerges above other project alternatives as a result of applying a consistent method for analysis and selection

The Business Case Workbook includes worksheets that present multi-year projections for a project based on the above evaluation factors. The following Business Case worksheets are described in further detail when introduced in Section 5:

- **Instructions:** provides high-level descriptions of the worksheets and detailed descriptions of the line item elements in each worksheet
- **Cost Analysis:** quantifies business case cost estimates required for project development, implementation, and maintenance; business case costs is the sum of project costs plus non-project/operational costs (i.e., ongoing maintenance and other operational costs incurred after project implementation)
- **Quantitative Benefit Analysis:** quantifies incremental cost savings, cost avoidance, and revenue generation benefits for the agency, as well as service delivery and regulatory savings for constituents
- **Evaluation Factors:** rates the qualitative and quantitative factors that support and justify a project, including statutory fulfillment, strategic alignment, agency impact analysis, financial analysis, initial risk consideration, and alternatives analysis
- **Cost-Benefit Summary:** summarizes the major categories of business case costs and quantitative and qualitative benefits
- **Financial Analysis:** contains various measures of financial feasibility, including incremental and cumulative Net Cash Flow, Net Present Value, Breakeven Point, and Financial Return on Investment.

- **Selection Results:** provides a summary of project evaluation factors and financial analysis results that should be copied into the Business Case Template.
- **Cost Mapping:** extends use of the Framework; its use is optional. Refer to the Project Financial Life Cycle Extension.
- **Additional Agency Information:** extends use of the Framework; its use is optional. Refer to the Project Financial Life Cycle Extension.

The Business Case Template consists of two main parts: an Executive Summary and the remaining sections that capture the business case analysis results. When preparing a Business Case, the agency should complete the Executive Summary *after all* of the other sections of the Business Case Template and Workbook are finalized. Summarized information from the template and workbook may then be presented as an overview of the business case analysis results.

A Business Case must be approved at the agency level, and submitted to the QAT when the agency submits its legislative appropriations request (LAR) to the LBB (Legislative Budget Board). Agencies must resubmit the Business Case to the QAT if the project cost increases more than 10%. The Business Case Template content can be used as the basis for developing the Information Technology Detail (ITD) part of the LAR. For more information regarding the LAR process, refer to the LBB Web site. For more information regarding the Business Case submission process (e.g., contact names, delivery method), refer to the Framework Web information.

## Applicability

A Business Case must be developed for any project classified as a major information resources project, and for certain major contracts. Refer to the Comptroller of Public Accounts (CPA) Contract Management Guide for guidance on which major contracts are required to use the Framework. Although non-project/operational costs (i.e., ongoing maintenance and other operational costs incurred after project implementation) are calculated as part of the overall financial analysis in the Business Case Workbook, only project costs which represent the development and implementation of the project should be included in determining whether the project meets major information resources threshold criteria.

## Governance and Scope

The Business Case is overseen by a newly-established Information Technology (IT) steering committee or within the context of existing IT governance processes and structures at the agency level. The business case analysis scope is dependent on numerous factors, many of which are driven by the maturity level of the existing IT governance processes and structures. The analysis and selection of projects are directly impacted by how well the agency addresses underlying processes for each of the quantitative and qualitative evaluation factors. For example, obtaining quantitative data for constituent benefits may be difficult for agencies that lack tools for gathering this type of data.

Agencies must decide on a case-by-case basis how much analysis is required to thoroughly and effectively select the best solution that aligns with agency goals and objectives. The scope of analysis depends on the agency's level of assurance that the investment has been adequately justified for each evaluation factor. In addition, a high level of accuracy at this early stage may not be reasonable, requiring agencies to rely upon order-of-magnitude estimates. Order-of-magnitude estimates reflect a particular degree of accuracy based on preliminary and conceptual data (e.g.,  $\pm 25\%$ ,  $\pm 75\%$ ).

## Section 1. Executive Summary

The Executive Summary outlines the highlights of the project and its impact on the delivery of agency and/or constituent processes and services. This section provides the agency head and other members of executive management a summary of relevant and compelling business reasons for implementing the project. It provides an overview of the merits, impacts, and benefits of the proposed project to agency staff, stakeholders, and legislators.

The Executive Summary should be completed *last* as a succinct summary of the business process justification analysis. While the information should be high-level and succinct, it should clearly communicate the anticipated outcomes and benefits, as well as assumptions and limitations.

### 1.1 Issue

Briefly describe the business issue the recommended project would solve. State the business problem in simple terms without describing how the problem will be addressed. The business issue is a clear statement and the business reason for why the recommended project should be implemented. Identify in a concise statement any related federal, state, statute, or rule mandates that would further clarify and provide insight to the business issue. For example, describe mandates that require processes and/or services not currently in place.

### 1.2 Anticipated Outcomes

Describe the anticipated outcomes of implementing a project that specifically addresses the business issue. Include the expected business results by summarizing the identified business goals and objectives. The description should include answers to questions such as "What are we aiming for?" and "What are the expected benefits to business operations?" Address the anticipated results without describing how those results will be achieved based on implementation of a project.

### 1.3 Recommendation

Describe the project that is being recommended to achieve the anticipated business outcomes. Describe the recommended project by summarizing the approach for how the project will address the business issue. The description should summarize key information, including how the project will deliver the expected business results and how those results will be achieved. Identify the stakeholders/customers involved in determining whether the desired results are achievable by

implementing the project. At a minimum, describe how the project will provide the expected benefits, including the technology enhancements that will enable the improvements.

#### **1.4 Justification**

Justify why the recommended project should be implemented and the rationale for why the project was selected above the other alternative solutions. Provide a compelling argument by summarizing key quantitative and qualitative information from the Project Evaluation section, including a description of the impact of not implementing the project. Determine and describe the top-most critical aspects of analysis information for each of the evaluation factors and include that information as part of the justification. Ultimately, the recommendation should reflect selection of the best solution with the greatest value to the state, agency, and constituents.

Determine and include analysis information that is necessary to provide a clear justification for the project. For example, determine what information from the charts (Summary: All Project Evaluation Factors, Financial Analysis: Agency/State, and Financial Analysis: Constituents) from the Project Selection, Results section should be included. For example, all Qualitative Factors that receive a high rank may be copied, together with their explanations, to this section. Determine whether financial data identified in the charts should be depicted as a graphical representation in this section. The type and extent of information included in the justification will vary based on the best approach for making a compelling and accurate argument.

#### **1.5 Assumptions**

List and describe any assumptions relevant to the project that is being recommended to achieve the anticipated business outcomes. Include assumptions regarding the processes and/or services affected by the proposed project. Specifically include assumptions about the customers, technology, staffing, among others.

#### **1.6 Limitations**

List and describe any limiting factors, or constraints, relevant to the project that is being recommended to achieve the anticipated business outcomes. Include constraints that restrict the project team's options regarding project scope, funding, staffing, scheduling, and management of the project.

## **Section 2. Governance and Business Case Analysis Team**

### **2.1 Governance**

Provide a description of the agency's IT governance structures and processes. The most common structure used to make project decisions is an executive steering committee. This is an agency-wide governance steering committee typically composed of the Chief Operating Officer (COO), Chief Financial Officer (CFO), IRM, Chief Information Officer (CIO), and senior managers of agency programs and administration.

The committee examines, debates, modifies, and ultimately evaluates agency factors to prioritize and select projects from all proposed projects submitted within the agency. The committee may look at factors such as how much of the technology investment to direct towards cost reduction programs, how much of the technology function to outsource, which new products and services to fund, how much to expend for enterprise architecture alignment, and how to resolve outstanding management issues. Ultimately, it is through this governance structure that projects are evaluated to determine their alignment with business goals and objectives.

The steering committee also reviews projects that exceed certain thresholds for size, duration, risk, or change in agency technology architecture and infrastructure. The business case analysis is intended to help a steering committee prioritize projects in terms of the Business Case evaluation factors as well as goals, risk, status, and other key factors. This evaluation significantly increases the likelihood that selected projects will achieve the business goals and objectives.

## 2.2 Business Case Analysis Team Members

List and describe the roles on the business case analysis team. Provide the names and titles of agency staff that will fulfill them. A business case analysis team should be designated once the agency has determined a project has enough merit to warrant a business case analysis (e.g., an agency may use a project concept document to present preliminary information). A business case analysis team is selected to further define the business problem and identify alternative solutions for addressing the problem.

The analysis team provides a completed Business Case to the steering committee for review and prioritization. Examples of members who may be included on the business case analysis team may include the Executive Sponsor, Technology Sponsor, Project Manager, and Information Security Officer (ISO). The Business Case requires an agency to establish a partnership between executive management and technology staff to ensure that business needs are the primary drivers for any technology investments.

When considering which roles on the business case analysis team are required, refer to the following information for the Executive Sponsor, Technology Sponsor, and other roles.

### Executive Sponsor

Because the impact of the project on organizational processes and/or services is a key consideration, the Executive Sponsor should not come from the agency's IT division. The Executive Sponsor is an executive (i.e., top-level non-IT manager) that has operational accountability for the project once it is completed and is in charge of overseeing the business case analysis, including selection of the team that can conduct the scope of analysis deemed appropriate. The Executive Sponsor signs off on the final Business Case Template to certify its accuracy, viability, and defensibility and has operational accountability for the project once completed.

The Executive Sponsor should be able to respond positively to the following questions:

- Do I have the ability, responsibility, and authority to ensure that the business changes and business benefits contained in the Business Case are delivered?
- Do I know how the priority of this project compares and aligns with other delivery and operational activities within the agency?
- Does the Business Case cover the full period of the planned delivery of the project and are all required business changes included?
- Does the Business Case define the performance measures of the project and the impact on the agency, divisions, staff, business processes, and services?
- Are the performance measures quantifiable so that the measures can be used to track the success or failure of the project, if funded?
- Does the Business Case take account of the views of all stakeholders, including users?

The Executive Sponsor is primarily responsible for ensuring the project would have a positive impact on the agency based on business case analysis results. In addition, the Executive Sponsor should ensure all team members have the required project management or other experience that qualifies them for their respective roles in the business case analysis process.

### **Technology Sponsor**

The Executive Sponsor must identify a Technology Sponsor. The Technology Sponsor is typically the IRM, or the IRM may choose to designate another technology expert within the agency. The Technology Sponsor is responsible for identifying the technology, costs for the implementation and operation of the project, and input into any of the Business Case evaluation factors that impact the business case analysis results from a technology perspective. The Technology Sponsor also signs off on the completed template to certify the accuracy, viability, and defensibility of the technology-related content and estimates.

### **Other Roles**

Other key personnel, such as a contract manager, division or program manager, and budget analyst, may be included in the analysis team as needed. The team could include business or functional managers and analysts, IT analysts, the agency's Information Security Officer (ISO), and other staff with an understanding of the business.

## Section 3. Problem Definition

The proposed project should solve a business problem that relates to the agency's operations, processes, or constituent services. This section states the problem, and then describes the specific processes, services, and/or technology that would be enhanced by implementing the project. It is essential to define the problem without presupposing a specific solution. This

prevents bias and enables an objective business case analysis to identify the best possible solution.

### 3.1 Problem Statement

Describe the problem the project would address. A problem could involve antiquated systems that no longer align with an agency's architecture, manual processing that limits services provided to a constituent, or mandated consolidation of business processes and technology for a specific program area. Include in the problem description a brief statement for any mandate that requires processes or services not currently in place.

### 3.2 Agency and Constituent Environment

Identify the stakeholders/customers (e.g., agency staff, constituents) that would be affected, and describe their relation to the project. Identify and describe the processes and/or services that would be modified or automated by the project. The project should improve business operations by modifying or automating processes and/or services.

Understanding agency processes and how constituents would be affected by the project is a key and critical step in business case analysis. Constituent services refer to services for customers outside the agency, such as online processing of licenses for citizens and any other impacts of a social or environmental nature. Constituents could include employers and other governmental entities that the agency serves.

Some processes will be more important than others. Identifying the processes that are most critical to delivering business success and that will be impacted by the project creates a clearer picture of what must be analyzed. Questions to be considered include

- What are we trying to achieve?
- What are our core products or services?
- Who are our stakeholders/customers (internal and external)?
- What are our main business and supporting processes?
- What are the two-way flows of materials and information involved in product or service delivery?

To fully understand processes, analyze activities in terms of inputs and outputs and the relationships between them. Using flow diagrams and flowcharts may be helpful at this stage.

### 3.3 Current Technology Environment

In the following two sections, identify and provide a description of the current, "as-is" technology environment that may be affected by the project. Include the hardware and software applications the new project would replace or upgrade. This will be a project benefit because any maintenance and ongoing costs for retired systems will be an agency benefit or cost reduction once the new project is fully implemented. For example, if certain applications will be replaced, or if the infrastructure will be improved, these represent an aspect of the business problem that will be addressed by the project.

### 3.3.1 Current Software (client-side, server-side, midrange, mainframe)

List and briefly describe the software affected (replaced, upgraded, or otherwise utilized) by the project

- applications software
- operating systems software, including middleware
- database software
- major internal and external interfaces to other systems

### 3.3.2 Current Hardware (client-side, server-side, midrange, mainframe)

List and briefly describe the hardware affected (replaced, upgraded, or otherwise utilized) by the project:

- platform and operating system
- storage and physical environment
- logical and physical network infrastructure and bandwidth

## Section 4. Project Overview

Understanding how the proposed project will solve the business problem is critical to project success. This section describes the project, states the goals and objectives, and then describes other aspects of the project. Cross-referencing the problem definition information from Section 3 to the project overview information in this section helps ensure that the proposed project actually solves the business problem. Information in this section is used as a basis to establish the quantitative and qualitative data that support each of the evaluation factors (Section 5).

### 4.1 Project Description

Describe the approach the project will use to address the business problem. Provide a general definition of the information and/or high-level requirements associated with the proposed business process or solution. The description should summarize key information, including how the project will deliver the expected business outcomes.

Identify the project sequence number included in the ITD. When the project spans biennia, identify the current and any historical project sequence numbers, as applicable.

### 4.2 Goals and Objectives

Describe the business goals and objectives of the project. Goals state what the desired end result is and objectives state how the desired result will be achieved. A project's primary purpose is to meet business objectives. The purpose could involve replacement or upgrade of an antiquated system, implementation of an automated solution that provides faster and lower-cost services to constituents, or consolidation of several applications into a centralized system. Business goals and objectives include such organizational improvements as:

- Decreased costs, errors, and reworks by a specific percentage
- Decreased processing or turnaround times by a specific percentage
- Increased productivity or capacity by a specific percentage
- Elimination of backlogs by a specific percentage
- Compliance with regulatory requirements (avoiding fines or penalties)
- Reduced redundancy in systems and/or data within the agency
- Greater flexibility in responding to stakeholder requests and services
- Reduced system maintenance requirements

### 4.3 Performance Measures

Describe the performance measures that will be used to gauge business outcomes, specifically those that provide the main basis for determining the business value of the project. The measure must answer the question, "What are we aiming for?"

Setting performance measures for a project is essential; otherwise, there is no basis for determining the business value. Clear measures allow an organization to balance financial factors against quality and security of delivery. The key factor is to ensure that the proposed project is business driven.

Performance measures establish quantifiable outputs and outcomes that achieve the target. Therefore, they must describe specific results that can be measured to demonstrate that a potential project provides the value described in the target. Characteristics of useful performance measures might include:

- **Specific:** Clear, unambiguous, and easy to understand by those who are required to achieve them
- **Measurable:** Setting a target for which success can be gauged by referring to a specific measure or measures
- **Achievable:** Expressing specific aims that staff feel can realistically be achieved with some effort
- **Relevant:** Applicable to those who will be required to meet them
- **Time-Oriented:** Set timescale for achieving a target

The careful selection of performance measures is vital. Performance measures provide the foundation for improvement and are critical to achieving performance management. Measures should reflect those activities, outputs, and services that are important to the affected departments, constituents, and the agency as a whole.

Performance measures are linked and aligned with strategic objectives or desired outcomes. Linking measures and targets to strategic objectives places them in context and communicates their integral importance to the organization.

Since performance measures must be quantifiable, the terms used to define them are crucial and should be agreed to by all stakeholders. Terms such as “satisfaction” and “improvement” are open to interpretation, and are therefore inappropriate; performance measures require more precise definitions.

#### 4.4 Assumptions

Provide a list of assumptions regarding the processes and/or services affected by the proposed project. Assumptions are generally *positive* in nature and may be facts that are usually implicit but are best made explicit. Assumptions may include suppositions that are yet to be proven but represent commonly held views relating to a potential project and the business. Specifically include assumptions about customers, technology, personnel and staffing, and any reengineering and workflow modifications required by the project.

#### 4.5 Constraints

Provide a list of limiting factors, or constraints, that restrict the project team's options regarding project scope, staffing, scheduling, and management of the project. Describe any project constraints being imposed in areas such as schedule, budget, resources, products to be reused, technology to be employed, products to be acquired, and interfaces to other products. List and describe the project constraints based on current knowledge.

#### 4.6 Proposed Technology Environment

In the following two sections, identify and provide a description of the technology environment following implementation of the proposed project. If applicable, include in the description technical factors that may be critical to project selection.

##### 4.6.1 Proposed Software (client-side, server-side, midrange, mainframe)

List and provide brief descriptions of software that the project will develop, customize, configure and implement for

- applications software
- operating systems software including middleware
- database software
- major internal and external interfaces to other systems

##### 4.6.2 Proposed Hardware (client-side, server-side, midrange, mainframe)

List and provide brief descriptions for hardware that the project will install, modify, or implement for

- platform and operating system
- storage and physical environment
- logical and physical network infrastructure and bandwidth

## 4.7 Major Project Milestones

Describe the preliminary major milestones of the project, including dates (mm/dd/yy) and deliverables, that represent the completion of specific phases during project delivery. Completion of a milestone typically results in one or more deliverables whereby the processes and/or services will become functional. Deliverables are those results that provide well-defined functionality and tangible products.

# Section 5. Project Evaluation

The business goals and objectives described in Section 4 are evaluated by the business case analysis team using the following six evaluation factors:

- Statutory fulfillment
- Strategic alignment
- Agency impact analysis
- Financial analysis
- Initial risk consideration
- Alternatives analysis

The evaluation process determines the extent to which the proposed project will solve the business problem by providing qualitative and quantitative information associated with each of the evaluation factors. The Business Case Workbook, which presents multi-year projections for a project based on the above evaluation factors, is completed as part of this section. Once completed, the Business Case Workbook evaluation factors are summarized in this section.

## 5.1 Statutory Fulfillment

Describe mandates related to the project, including mandates by statute, government rules, regulatory compliance, audit finding, etc. The mandate(s) may be direct (legislation that specifically requires creation of a software application) or derived (legislation that requires a program or effort that the organization proposes to fulfill through the project). Include details of how the project fulfills the mandate(s) while satisfying agency business strategies. Identify citations to all statutes and rules. Describe any penalties or funding losses that may occur if the project is not implemented, including how the project meets the standards or requirements that would otherwise trigger the penalty or loss.

The Business Case Workbook includes an Evaluation Factors worksheet that allows statutory fulfillment to be scored as a qualitative factor. The statutory fulfillment line items (SF1-SF7) should be scored based on a high score of "5," moderate score of "3," or low score of "1." For all factors rated a "5," in the Evaluation Factors worksheet describe the provisions the agency has in place to ensure these high scores will be accomplished and maintained throughout project delivery. Summary information for each of the evaluation factors is reflected in the Cost-Benefit Summary worksheet.

## 5.2 Strategic Alignment

Identify titles of strategic plans the project addresses. A project is at risk if it fails to align with the State Strategic Plan for Information Resources Management, the agency's strategic plan, or other applicable plans. Furthermore, a project is at risk if it is inconsistent with the agency's approved budget. Identify the goals and objectives cited in the strategic plans. Describe the relationship of the project to each of the plans based on how the project aligns and meets the goals and objectives cited in the plans.

The Business Case Workbook includes an Evaluation Factors worksheet that allows strategic alignment to be scored as a qualitative factor. The strategic alignment line items (SA1-SA9) should be scored based on a high score of "5," moderate score of "3," or low score of "1." For all factors rated a "5," in the Evaluation Factors worksheet describe the provisions the agency has in place to ensure these high scores will be accomplished and maintained throughout project delivery. Summary information for each of the evaluation factors is reflected in the Cost-Benefit Summary worksheet.

## 5.3 Agency Impact Analysis

Describe how the project would impact the use of information resources technology at the agency level. Include how the project would support the defined architecture and standards for the agency and state.

Include how the project would incorporate enterprise standards and best practices such as

- **Industry-proven technologies:** Specify the IT technology based on open architecture with standards. If applicable, describe the extent to which the technology is Web-related, platform independent, scalable, interoperable, flexible, and whether the technology meets industry standards.
- **Customization:** Estimate the amount of customization anticipated to be necessary, using off-the-shelf solutions when feasible. Leverage existing legacy applications whenever possible.
- **System development methodology:** Specify the method and tools anticipated for project development that promote deployment of an open architecture (e.g., design methodologies).
- **Legacy assets:** Describe how the project's technology builds on legacy assets, promotes data sharing, reuse of code, eliminates data redundancy, and enhances the use of agency information.
- **Conforms to DIR IT standards and policies:** Describe how the project's technology conforms to DIR standards and guidelines.

The Business Case Workbook includes an Evaluation Factors worksheet that allows statewide impact analysis to be scored as a qualitative factor. The statewide impact analysis line items (IA1-IA8) should be scored based on a high score of "5," moderate score of "3," or low score of "1." For all factors rated a "5," in the Evaluation Factors worksheet describe the provisions the

agency has in place to ensure these high scores will be accomplished and maintained throughout project delivery. Summary information for each of the evaluation factors is reflected in the Cost-Benefit Summary worksheet.

## 5.4 Financial Analysis

Describe the methodology used to calculate business case costs and quantitative project benefit estimates as identified in the Business Case Workbook and described in the following subsections of Section 5.4. Describe the factors that affect the estimates and all underlying assumptions. For example, state whether the costs and benefits represent pessimistic, expected, or optimistic values based on the stability of project factors and assumptions. The following examples illustrate the level of detail that should be provided regarding the agency's assumptions and basis for estimating cost and savings information.

**Example:** *“The streamlined process is projected to reduce the amount of human intervention required from one human intervention for every three claims to one intervention for every fifteen claims for our current processing volume. This will reduce the number of full time equivalents (FTEs) required to process claims applications by three. This estimate assumes that the current processing rules can be rationalized and automated by workflow software. If the process is not completely automated, the savings may be as little as one FTE. However, results from a similar program used in Tennessee seem to indicate that three FTEs is a conservative estimate of possible savings, and even more may be possible as division personnel become more familiar with the system’s proposed functionality.”*

**Example:** *“The software proposed for this application was developed for a similar application in Tennessee where the cost was \$15,500 per seat. The base cost per seat in Texas is quoted at \$11,000, but numerous modifications are required to automate the considerably more complex Texas process. Thus, the base cost cannot be less than \$11,000 per seat and is expected to cost about \$15,500 per seat. If even more modifications are required because undocumented processes are discovered during requirements analysis, the cost may be \$3,000 to \$5,000 higher per seat. At the time of this writing, there appears to be a 50% probability that this might occur. This will increase the total cost for 20 seats by \$60,000 to \$100,000.”*

Various factors (e.g., project constraints, availability of data, analysis methods) may directly impact an agency's estimating methodology. Business value exists when the post-implementation environment produces more efficient operations with simplified processes and improved services that require fewer staff or resources. The extent to which these improvements can be quantified depends on the nature of the proposed project and the availability of data. Direct measurements of business processes and/or services through process mapping or staff surveys can be time consuming and costly, but generally provide the best information on how these services are being delivered in the agency. Another approach is to utilize industry experts, such as Forrester or Gartner, to determine baseline costs or industry standards and to use those numbers as proxies.

The Business Case assumes that the agency will actively manage the implementation of both the project itself and the organizational changes required to take full advantage of the project, especially any reengineering of business processes and/or services. Quantitative, or tangible, benefits to the agency's business processes and/or services are directly tied to the implementation schedule of the project itself. For example, if the proposed project enables employee self-service, the benefits to the organization, such as reduced staff time for phone calls, will not begin to be realized by the agency until that functionality is implemented.

Constituents can also benefit from the project, and in some instances, quantifying those benefits may be possible. Although these savings affect customers and do not reduce agency costs or state funding requirements, they should be identified as part of the value of the project. Constituents can include citizens, government organizations served by the agency, other states, and the private sector.

To arrive at a savings/cost reduction estimate, the agency must conduct an analysis of current service delivery methods of the constituent population. Reduced costs incurred by customers or clients to obtain services or products could be included in this analysis. Reductions may include

- Reducing the time customers spend waiting for a service or product assuming customer time is valued at \$10 per hour unless your CFO or business analyst recommends a different standard
- Using resources more efficiently (e.g., customers do not need to mail in forms because the project makes it possible to do business online)
- Reducing other service-related costs

The following subsections describe the financial quantitative information required by the Business Case Workbook.

#### **5.4.1 Business Case Cost Estimates**

The Cost Analysis worksheet reflects initial estimates of the project's life cycle plus non-project/operational costs such as agency personnel, contract services, capital acquisitions, operations and maintenance, and other resources categories, as well as a built-in contingency for risk during the development phase of the project (based on a two-year development period). Input of data in all 10 columns in the Cost Analysis worksheet is not required because cost estimates include all costs required to meet the project's business objectives. For example, costs for disaster recovery, business continuity, cyber security, and other costs required to meet business objectives within seven years are input in columns one through seven.

The Cost Analysis worksheet should include both recurring and non-recurring costs (i.e., the project cost to develop and implement, as well as ongoing non-project/operational costs in the business case costs schedules). The non-project/operational costs include all upgrades and recurring costs for maintaining the operations and software associated with the project. The following examples of cost categories should be included:

- hardware, software and maintenance acquisitions
- development activities
- facilities
- supporting organizations
- implementation and conversion activities
- recurring operations costs
- recurring maintenance costs
- other costs

#### 5.4.2 Agency Quantitative Project Benefits

The Quantitative Benefit Analysis worksheet reflects multiple categories where potential reductions/savings may be realized. Additionally, the worksheet enables an agency to describe other categories where reductions/savings may exist.

The following chart outlines possible quantitative benefits from the project.

Possible Quantitative Benefits	
Reduced resource requirements for:	
Personnel Lease, rental, maintenance Support services	Training Supplies and utilities Security
Improved data entry resulting in:	
Reduced staff time	Reduced error rates
Improved technology utilization for:	
Storage and retrieval Performance monitoring	Data compression Centralized or distributed processing
Improved operational effectiveness resulting in:	
Reduced error rates Improved timeliness Better quality products	Increased productivity Expanded capacity or capability Better management reporting
Cost avoidance by:	
Eliminating future staff growth Eliminating additional equipment requirements	Minimizing penalties for delays

The technology cost reductions/savings may vary depending on the type of project and the type of system in place within the agency to support the project once it is deployed. For example, if the new system replaces an obsolete system, it could result in retiring certain hardware and software systems that would otherwise require updates, programming, and other maintenance costs. By retiring these systems, the operational costs of the agency would be reduced by the project. These costs would be captured as a cost reduction, since they will no longer be incurred once the project is implemented.

If the project enhances the current maintenance infrastructure in the agency, it could reduce the overall costs of the maintenance infrastructure through improved data management, reduced programming or coding requirements, and produce other improvements. These reduced technology costs in the post-implementation environment would be part of the benefits of the project and recorded as cost reductions/savings.

Cost avoidance includes any impact from the proposed project that may eliminate a current agency requirement to pay penalties, lose funding, or encounter other negative financial impacts. In the Quantitative Benefit Analysis worksheet, estimate the pending penalties or funding losses that may occur if the project is not implemented. In addition, provide an estimate any new revenue generated as a result of the project.

### **5.4.3 Constituent Quantitative Project Benefits**

The Quantitative Benefit Analysis worksheet enables the constituent value of the project to be estimated based on savings and cost reductions to constituents from enhanced services. Although they do not reduce agency costs or state funding requirements, these savings are an important value component of the project.

Constituent service delivery savings should reflect estimated cost savings through service delivery improvements, such as applying for benefits, employment, transacting payments, among other functions. The time and other resources expended in traveling to government offices to apply for or obtain services as well as reduced customer service wait time should be included in these estimates.

Constituent regulatory savings should reflect estimated costs savings through greater enhanced capabilities for constituents to comply with the state's regulatory requirements, such as registering, licensing, permitting, obtaining authorizations or certifications, obtaining and maintaining benefit eligibility, and transacting payments.

The agency may identify other constituent categories that are unique to their service delivery program(s).

### **5.4.4 Cost-Benefit Summary**

The Cost-Benefit Summary worksheet summarizes categories of business case cost and benefit data entered in the Cost Analysis and Quantitative Benefit Analysis worksheets. This read-only summary worksheet also recaps each of the factors outlined and rated in the Evaluation Factors worksheet.

### **5.4.5 Financial Analysis**

The Financial Analysis worksheet provides an analysis of summary financial data contained in the Cost-Benefit Summary worksheet. This read-only worksheet reflects various measures of financial feasibility, including agency/state quantitative benefits (cash inflow), business case costs (cash outflow), benefit/cost variance (net cash flow), and cumulative net cash flow.

From this information, the project's Net Present Value (NPV), Breakeven Point, and Financial ROI are calculated. NPV compares the value of a dollar today versus the value of that same dollar in the future, after taking inflation and return into account. An NPV computation allows the agency to identify the investment with the highest net return. A negative net return indicates that the investment cannot be justified based solely on financial benefits. If the NPV is positive, the financial return on the project is considered acceptable. The Discount Rate is the interest rate used to compute the NPV of future cash flows. The discount rate represents the minimum rate of return an agency expects from investments such as IT projects. The default value in the spreadsheet is 5%. Consult DIR's CFO to determine if your organization might use a different value.

The project Breakeven Point is the number of years/months it takes for the benefits to equal the business case cost of the project. This metric is calculated by dividing cumulated costs by annual benefits until they are equal.

The Financial ROI measures the percentage return of the project's financial investment and is expressed as the net benefits over business case costs. A negative Financial ROI indicates that the investment cannot be justified based solely on financial benefits.

Each of the above financial measures reflects an analysis and justification of the project based on the agency/state business case costs and benefits. The Financial Analysis worksheet also quantifies the value of the project to constituents across the state. In this instance, business case cost is compared to the dollars saved by the constituent base to determine the value of the investment.

The Financial Analysis worksheet also presents charts of the financial analysis tables contained in the worksheet. The first chart reflects the financial metrics calculated in the Agency/State table. Specifically, this chart reflects the project's Breakeven Point, when the cumulative net cash flow is positive or equal to zero. The second chart reflects incremental business case costs and incremental benefits calculated for both the agency/state and constituents.

Upon completing the worksheet, review and compare each of the financial measures with the alternative solutions to determine if the project warrants additional justification and/or further examination of the project's solution strategy.

The Business Case Workbook includes an Evaluation Factors worksheet that allows financial analysis to be scored as a quantitative factor, based on the results of the detailed analysis. The financial analysis line items (FA1-FA12) should be scored based on a high score of "5," moderate score of "3," or low score of "1." For all factors rated a "5," in the Evaluation Factors worksheet describe the provisions the agency has in place to ensure these high values will be accomplished and maintained throughout project delivery. Summary information for each of the evaluation factors is reflected in the Cost-Benefit Summary worksheet.

## 5.5 Initial Risk Consideration

The Business Case Workbook includes an Evaluation Factors worksheet that allows a standard set of project risks to be scored based on how well the risk is considered and addressed. The risk analysis line items (RC1-RC9) should be scored based on extensive consideration and planning for management of the risk as “5,” moderate consideration and planning for the risk as “3,” or no consideration and planning for the risk as a “1.” For all factors rated a “5,” in the Evaluation Factors worksheet provide an explanation to justify the rating by identifying the risk response. Summary information for each of the evaluation factors is reflected in the Cost-Benefit Summary worksheet.

To provide further context during the initial consideration of risks, other risks may be identified in addition to the standard set of project risks included in the Evaluation Factors worksheet. In the Business Case Template, identify and rate any additional risks in the same manner as the standard set of project risks and factor in all of the risk consideration data (responses to both additional and standard risks) during project evaluation and selection.

As part of the initial consideration of risks, include in the additional risks any barriers that could potentially impede the new, automated, or modified processes and/or services provided by the project. Potential barriers include technology, staffing, funding, organizational culture, training, workflow issues, and vendor and product issues. By preliminarily considering, and eventually fully managing (i.e., identification, classification, prioritization, control, etc.) these risks later during project delivery, organizations can better track and monitor the implementation of a project and its impact on organizational efficiencies and improved services.

## 5.6 Alternatives Analysis

Identify alternative solutions considered by the agency, and reasons for not selecting each of the alternatives. During project evaluation, an examination of different alternatives should be conducted to ultimately select the best solution that delivers the greatest value to the state, agency, and constituents. A full-scale evaluation may not be required for all of the alternative solutions considered by the agency; however, a minimum of three alternatives, including at least one rejected alternative and the alternative of not implementing the project at all should be described. Although the selected project requires a complete Business Case, it may be possible to reject some alternatives through a high-level analysis or by using specific sections of the Business Case. The agency should apply the same methodology for each of the evaluation factors to ensure that a consistent basis for examining all of the alternatives has been followed.

State the reasons for not selecting status quo by describing the overall impact (i.e., result of not doing a project at all). Identify and describe the impact in terms of each of the evaluation factors and relate the impact to the problem definition. For example, state statutory requirements would be unfulfilled, annual maintenance costs would continue to increase, or constituents would not receive a service. Briefly summarize any quantitative and qualitative data that support the impact of not doing the project if available. The impact of not doing the project must be included in the Business Case.

State reasons for why other alternatives were rejected (e.g., costs too much or does not align with the enterprise architecture). Briefly summarize any quantitative and/or qualitative data (similar to the proposed project) for each of the evaluation factors if available. At a minimum, state the results of the agency's business case costs analysis performed for each alternative and the underlying assumptions. If a Business Case was developed for a rejected alternative, reference the Business Case and limit the alternative solutions description to a high-level summary. If at least one rejected alternative is not included, explain why.

The Business Case Workbook includes an Evaluation Factors worksheet that allows the alternatives analysis methodology to be scored as a qualitative factor. The alternatives analysis line items (AA1-AA6) should be scored based on a high score of "5," moderate score of "3," or low score of "1." For all factors rated a "5," in the Evaluation Factors worksheet provide an explanation to describe the provisions the agency has in place to ensure these high values will be accomplished and maintained throughout project delivery. Summary information for each of the evaluation factors is reflected in the Cost-Benefit Summary worksheet.

## Section 6. Project Selection

After completing project evaluation using the six evaluation factors, each agency should define a methodology to prioritize and select projects based on specific agency and project needs. A summary of the selection methodology, as well as the selection results, should be included in the Executive Summary.

### 6.1 Methodology

Describe the methodology used for project selection. If the agency has a documented methodology (i.e., consistent, repeatable, written) for use with all alternatives, reference the document and limit the methodology description to a high-level summary.

A selection methodology is developed by the agency to determine how the evaluation factors are used to arrive at a selection decision. How the agency defines its methodology depends on numerous parameters. For example, available sources of funding (i.e., some sources require expenditure before a certain deadline) may impact project selection. Strategic alignment may weigh more heavily than other evaluation factors (e.g., an initial project may actually be a building block for future projects). Various types of technology-related constraints may drive a specific decision.

The methodology could emphasize the value to constituents and other qualitative factors about quantitative benefits, especially if the Breakeven Point (agency/state) would not be achieved within five years or less. In this case, the qualitative factors provide the foundation for justifying the project. For example, if there is a mandate for the project and the Breakeven Point is more than ten years, the cumulative net value to constituents may be weighted more heavily along with the qualitative benefits. On the other hand, high risk may offset any benefits from a short Breakeven Point.

Include specific agency and project needs that directly impact the project selection process. For example, an agency may choose to factor in statutory fulfillment obligations by expanding the scope of a mandated service in order to increase the overall value of services provided to the constituents. Include any mechanisms used to assign weights to each of the evaluation factors or tools that are used to help maintain the integrity of the Business Case data. For example, an agency may choose to limit project selection to certain projects by only including those that align with the enterprise architecture.

## 6.2 Results

State in detail the rationale for why the project was selected above the other alternative solutions. Cite any market research that was conducted to identify innovative project solutions such as issuing a Request for Information (RFI) to investigate potential solutions or to examine comparable data from initiatives implemented by other state agencies or other states.

As a graphical summary of the project selection results, the following charts may be copied to the Executive Summary depending on the desired approach for providing a clear justification for the proposed project.

The Cost-Benefit Summary worksheet includes a summary of all project evaluation factors as shown in the chart below. A copy of the completed chart is located within the Selection Results worksheet of the Business Case Workbook. The chart must be copied to this section.

Summary: All Project Evaluation Factors			
Line	Factor	Maximum Rating Possible	Rating*
SF	Statutory Fulfillment	35	
SA	Strategic Alignment	45	
IA	Agency Impact Analysis	35	
FA	Financial Analysis - Government/Constituent	60	
RC	Initial Risk Consideration	45	
AA	Alternatives Analysis	30	
	Total, All Project Factors	250	

The Financial Analysis worksheet contains measures of financial feasibility related to the agency/state and constituents. The Financial Analysis worksheet includes measure results in the appropriate line item as shown in the charts below. The charts include each of the first five years of the project with a total column for a ten-year analysis period. A copy of the completed charts is located within the Selection Results worksheet of the Business Case Workbook. The charts must be copied to this section.

<b>Financial Analysis: Agency/State</b>							
Line	Measure	Year 1	Year 2	Year 3	Year 4	Year 5	10 Year Total
RA1	Agency Benefits (Cash Inflow)						
RA2	Business Case Costs (Cash Outflow)						
RA3	Benefit/Cost Variance (Net Cash Flow)						
RA4	Cumulative Net Benefits (Cumulative Net Cash Flow)						
RA7	Breakeven Point (Years 1 to 10)						

<b>Financial Analysis: Constituents</b>							
Line	Measure	Year 1	Year 2	Year 3	Year 4	Year 5	10 Year Total
VA1	Constituent Benefits						
VA2	Business Case Costs						
VA3	Benefit/Cost Variance						
VA4	Cumulative Net Benefits						

## Section 7. Glossary

Define all terms and acronyms required to interpret the Business Case properly.

## Section 8. Revision History

Identify changes to the Business Case.

## Section 9. Appendices

Include any relevant appendices.