

Business Analysis Planning Guide



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SECTION ONE: INTRODUCTION

Business analysis is the set of tasks, knowledge, and techniques required to identify business needs and determine solutions to business problems. Business analysis activities are the key to a successful organizational change. According to the International Institute of Business Analysis (IIBA), a **business analyst** (BA) is anyone who performs business analysis, regardless of their title. BAs have become a valuable resource within most organizations because they facilitate the completion of major business analysis activities and ensure the appropriate stakeholders remain involved with the project throughout its lifecycle.

WHAT ARE THE ROLES OF THE BUSINESS ANALYST?

Whether a generalist or a specialist, a BA is capable of functioning competently in many diverse roles. Typically, BAs have a broad educational background and a diverse set of skills with a wide range of work experience in different jobs and industries. The roles of the business analyst must be clearly defined and understood, since they drive the business analysis approach. At Enfocus Solutions Inc., we have defined the following eight roles of the business analyst:

1. Analyzing and Documenting the Business Problem
2. Evaluating Options and Recommending the Right Solution
3. Identifying and Engaging Stakeholders
4. Eliciting Business and Stakeholder Needs
5. Defining Requirements
6. Facilitating Collaboration between Business and Development Teams
7. Enabling Business Change and Transformation
8. Ensuring the Solution Delivers Business Value

WHAT IS THE BUSINESS ANALYSIS APPROACH?

Organized around the previously listed eight roles, the business analysis approach describes the overall process that should be followed when performing business analysis for a project. This guide provides analysts with instructions and considerations for planning the business analysis approach of a singular solution. The business analysis approach should include information about how and when tasks will be performed, the techniques that will be used, and the deliverables that should be produced. By organizing the approach around the eight roles performed by the BA, the analyst can ensure the approach covers all necessary aspects. Activities related to the BA roles should be planned during the beginning stages of the project. This plan should be formally documented in a requirements management tool, like Enfocus Solutions' RequirementPro™.

Planning business analysis activities is about creating a roadmap to ensure that the delivered solution meets business and stakeholder needs and delivers value to the business. The end result of business analysis planning is a business analysis plan (BAP). The BAP will provide answers to questions such as:

- How will business analysis work be executed to meet business and project objectives?
- What is the required level of rigor?
- What is the required level of detail for the requirements?
- Which business analysis techniques will be used?
- How will changes to requirements be managed?
- How will changes to scope will be managed?
- How will communications flow and how will issues be escalated?
- How will the deliverables and end product be verified and validated?
- How will related requirement risks be managed?

As you put the plan together, remember that business analysis activities are not performed sequentially. Many tasks are performed iteratively throughout the project. Also, depending on your project, some tasks that are performed as part of business analysis may not need to be defined at all.

SECTION TWO: FACTORS IMPACTING THE BUSINESS ANALYSIS APPROACH

Before learning the roles of a business analyst and how to perform them, the BA should become familiar with key concepts related to business analysis and the factors impacting the project at hand. The selected approach will vary depending on many different criteria. In developing a business analysis approach, it is important to understand the factors that are listed below. Many of these should be considered as you create a business analysis approach that addresses all eight roles performed by the BA.

Solution

What, exactly, is the solution? It is important to be able to envision what the final solution will be. The team will plan the approach differently depending on the type of solution they intend to design. For example, an approach would need to be specially tailored for certain situations, such as mergers/acquisitions, building bridges, or performing software upgrades.

Purchased or Built

Will the solution be purchased or built? If the plans are to buy a packaged solution, the business analysis approach will be very different than if the organization were to build the solution themselves. The level of detail might be much less for a built solution, because your team may already be familiar with the system.

Outsourced

Or, will the solution be outsourced? If the plans are to outsource solution development, requirements will need to be much more detailed and precise than if the requirements were being delivered to in-house developers.

Amount of Design

Who is going to be doing the design? Today, some organizations have their own design teams and some do not. Often, the design team dislikes it if the BA performs design activities himself, like modeling or other visualization techniques. Although, sometimes the BA must perform design activities if there is no design team. In this situation, the BA needs to become familiar with and include many visualization techniques in the business analysis approach.

Development Lifecycle

What is the organization's standard development lifecycle? It is important to understand the development lifecycle most commonly used within the organization when planning business analysis activities. There may be a prescribed methodology that has already determined what business analysis activities need to be performed. Agile and waterfall development styles require different types of business analysis deliverables.

Location of Stakeholders

Where are all of the solution stakeholders going to be located? This is an important factor when determining the stakeholder communication plan. If everyone is collocated, it will be easier to communicate less formally than if they are spread across the globe. Dispersed SMEs will require different techniques for eliciting, analyzing, and approving requirements.

Organization Culture

What is the culture within the enterprise? Different organizations have different attitudes toward formality and rigor. In some organizations, requirements are created even for small maintenance projects. In other organizations, requirements are not considered a value-adding activity regardless of the size of the project. Culture will have a significant impact on determining the right amount of requirements management for a project.

Stakeholder Preferences

What do the stakeholders want? When communicating and collaborating with stakeholders, some may require more or less formality. A sponsor may, for example, want formal approval for requirements but not a documented elicitation plan of where the requirements came from. Some sponsors may want complete requirements traceability and others may not care.

Stakeholder Politics

Are there any politics within the organization that will affect the project? Projects with significant related stakeholder politics can make business analysis much more difficult and may necessitate a special approach for business analysis activities.

Complexity

How complex will the solution be? A predetermined core formal set of business analysis activities is required in certain situations:

- The project impacts multiple business units.
- The solution will require multiple teams to build.
- There is a significant number of complex interfaces.
- There are large number and numerous types of stakeholders.

Benefits Realization

What are the benefits that will be provided by the solution? Many organizations are using business analysts to review and evaluate benefits that were realized by the project. The expected benefits realization will impact many business analysis activities.

Organizational Change

Are there any organizational changes that will affect the solution? The amount of organizational change must be considered when determining business analysis activities and BA techniques that should be applied.

Business Process Change

Are there any changes in the organization's business processes that will affect the solution? Many solutions involve changing or optimizing business processes. Modifying business processes may require business process modeling using BPMN, benchmarking, work sampling, applying six sigma techniques, and measuring process performance.

SECTION THREE: KEY CONCEPTS

As the BA begins to plan the business analysis approach, it is important to remain familiar with the following key concepts:

Stakeholder Expectations

According to the PMBOK Guide—Fourth Edition, requirements include documented *needs*, *wants*, and *expectations*. Unmet stakeholder expectations can derail projects and cause them to be viewed as failures. However, delivering every want, need, and expectation increases the scope, adds significant cost and complexity, and delivers little business value. It is important to capture needs, wants and expectations and then prioritize them in a fashion that makes them easily managed and implemented. It is vital that the BA remembers to address stakeholder expectations must be addressed at all stages within the project duration.

Project vs. Solution Scope

Before preparing scope, it is important to distinguish the difference between project and solution scope. *Project Scope* includes the work needed to create a product or deliver a service or result. Project Scope defines the work required to create and deploy the product. The Project scope statement is prepared by the project manager.

Solution Scope describes the characteristics, features, or functions of the product or service to be built. Solution scope is all about the solution to be implemented: how will it look, how will it function, and other characteristics, etc. The solution scope should be clearly documented in a requirements management tool, like RequirementPro™. The solution scope should be prepared with input from key stakeholders.

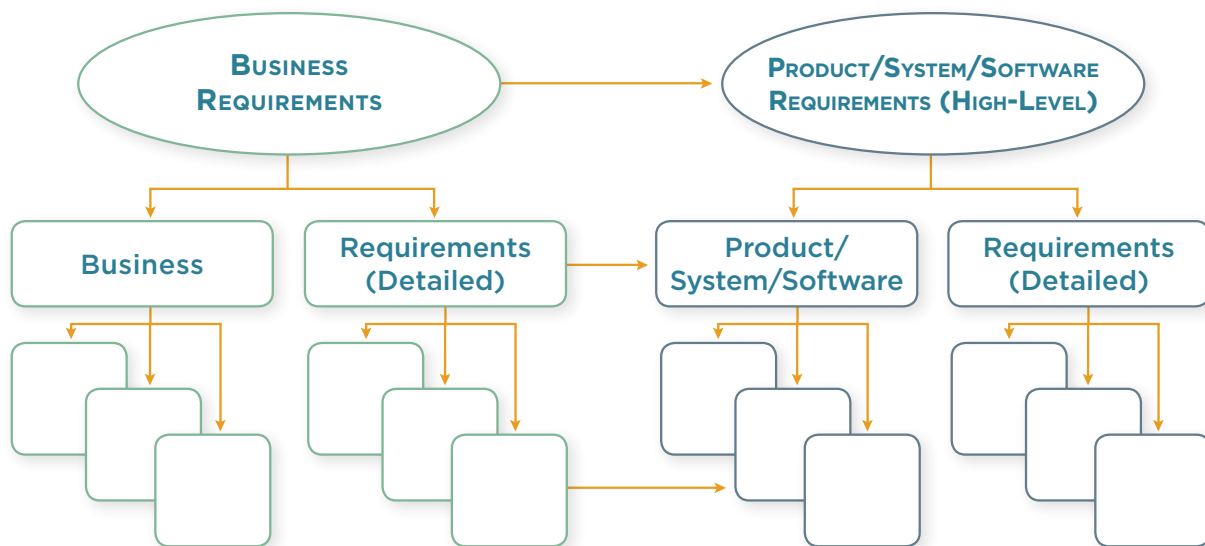
Product vs. Solution

Although the industry treats product and solution interchangeably, they are actually different. The *product* is the end result of the project. The *solution* is the implementation of the requirements, which includes how the product was implemented. Keep in mind that one product may undergo many solutions.

Business Requirements vs. Solution Requirements

Many people confuse the terms business requirements and solution requirements and often think they are the same. They are actually quite different. *Business requirements* define *what* must be delivered to provide value. *Solution requirements* describe *how* the proposed solution will accomplish the business requirements. Solution requirements are one way of ensuring business requirements are satisfied. According to Robin Goldsmith in his book, *Discovering REAL Business Requirements for Software Project Success*, defining business requirements is the most important and, often, the poorest performed part of system development. Once implemented, business requirements provide value, which comes from meeting business objectives through solving problems, taking opportunities, and meeting challenges.

The IIBA's *Business Analysis Body of Knowledge* (BABOK) recognizes the difference between business and solution requirements, sometimes referred to as system or product requirements. However, most requirements tools vendors do not recognize the difference and focus entirely on defining functional and nonfunctional requirements. Functional and nonfunctional requirements are solution requirements and not business requirements. Failure to recognize the difference between business and solution requirements and failure to identify and define business requirements usually results in significant scope creep and delivering solutions that provide little business value.



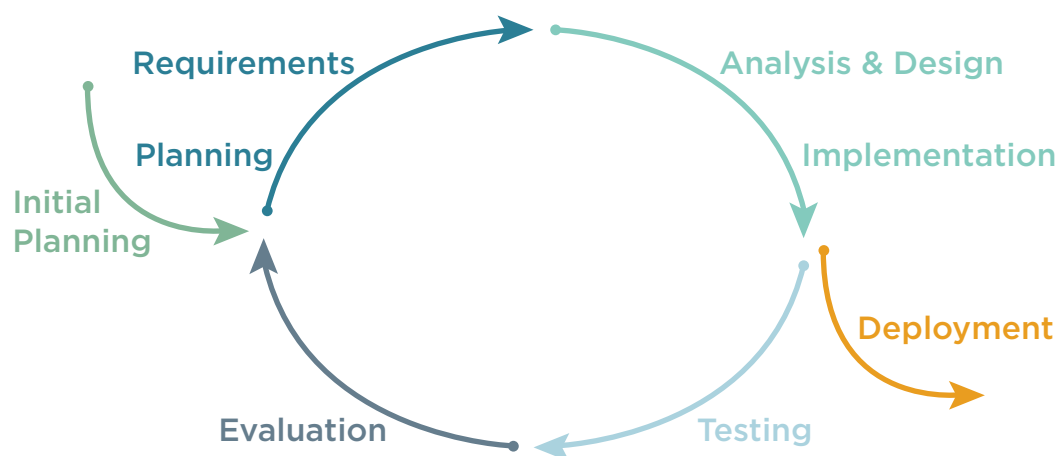
The model above shows the relationship between business requirements and solution requirements. Business requirements need to be defined in detail. They are hierarchical, and no matter how far down in detail they go, they are always business deliverables that provide value when delivered, satisfied, or met. However, when business requirements have been defined in detail, then it usually is a relatively straightforward process to translate them into a product which actually meets the business requirements and thereby avoids creep.

Iterative and Incremental Development

If your organization does not already follow a certain development methodology, you will need to determine the development style that is best for the project at hand and for the organization as a whole. One very popular style of development is to create and manage requirements iteratively and incrementally.

Incremental development means that new features are added in increments, or piece by piece. For example, software can be developed using a plan-driven approach with new functionality sliced up into portions. In each increment, a piece of functionality is delivered through cross-discipline work, from requirements development to the deployment. Incremental business analysis means that requirements are defined for an increment and new requirements are added for each increment.

Iterative development implies planned rework. Requirements are expected to evolve and change. Therefore, changes to requirements are expected and usually viewed as part of the development process and not as a defect. Each iteration evaluates what has been built, and then the product is rebuilt as needed. Iterative refinement is about feedback-based improvement. Among other things, developing a software system is an act of learning, which means that we have a better idea of what we should have built when we're finished than when we started. Each iteration implies planned rework, so there should be a process in place to accommodate changes to requirements. The diagram below shows an iterative development model.



SECTION FOUR: HOW TO PLAN THE EIGHT ROLES

ROLE ONE: ANALYZING AND DOCUMENTING THE BUSINESS PROBLEM

OUTPUT: PROBLEM ANALYSIS PLAN

The first role a BA must perform is that of analyzing and documenting the problem that will be addressed by the solution. When planning the business analysis approach, the BA must determine which problem analysis techniques should be used to analyze the problem. The list of techniques that will be used to define the problem make up the problem analysis plan. By far, the easiest way to document the problem is to follow Robin Goldsmith's **Problem Pyramid™**. However, according to *The Thinker's Toolkit: Fourteen Powerful Techniques for Problem Solving* by Morgan D. Jones, there are other techniques that may be useful in documenting and analyzing the problem, as well:

Problem Restatement—Simply restating a problem can broaden your perspective of the problem, helping to identify the central issues and alternative solutions.

Pro-Cons and Fixes—This six-step technique deals with the problem of negative thoughts by compensating for negative thinking by forcing the BA to identify the positives first.

Divergent/Convergent Thinking—The most common technique involving divergent thinking is to hold brainstorming workshops in which individuals can generate creative ideas about the topic at hand.

Sorting, Chronologies, and Timelines—These are structuring techniques. Sorting is the most basic structuring technique. The analysis of even the simplest problems benefits from simple sorting. Chronologies and timelines are a couple more highly useful elementary techniques for organizing information. These three techniques are quite simple and useful, but seldom remembered.

Causal Flow Diagramming—Flow diagrams help answer the questions, “What is causing the problem?” and, “How are the major factors interacting to produce this result?”

The Matrix—A matrix is a technique that enables the BA to separate elements of a problem and then categorize and compare different types of information.

The Scenario Tree—A scenario tree is a diagram that graphically shows choices and their outcomes at different junctures in alternative sequences or chains of events.

Weighted Ranking—Weighted Ranking is a systematic technique that enables the BA to determine which criteria are the most important and apply them equitably to all the items being ranked.

Hypothesis Testing—In this structured technique, the analyst ensures all hypotheses are considered sufficiently to test their degree of validity. In hypothesis testing, the BA ranks competing hypotheses by the degree to which relevant evidence is inconsistent.

Devil's Advocacy—Closely related to hypothesis testing, this technique challenges the proposition to test its validity.

Probability Tree—A probability tree enables the BA to estimate which scenario is most likely and which is least likely, as well as which decisions and events within the alternative scenarios are most likely and least likely.

Utility Tree—Utilities are reasons for performing certain actions. A utility tree helps to perform utility analysis, the purpose of which is to rank any number of options according to how they serve the decision maker's self-interest.

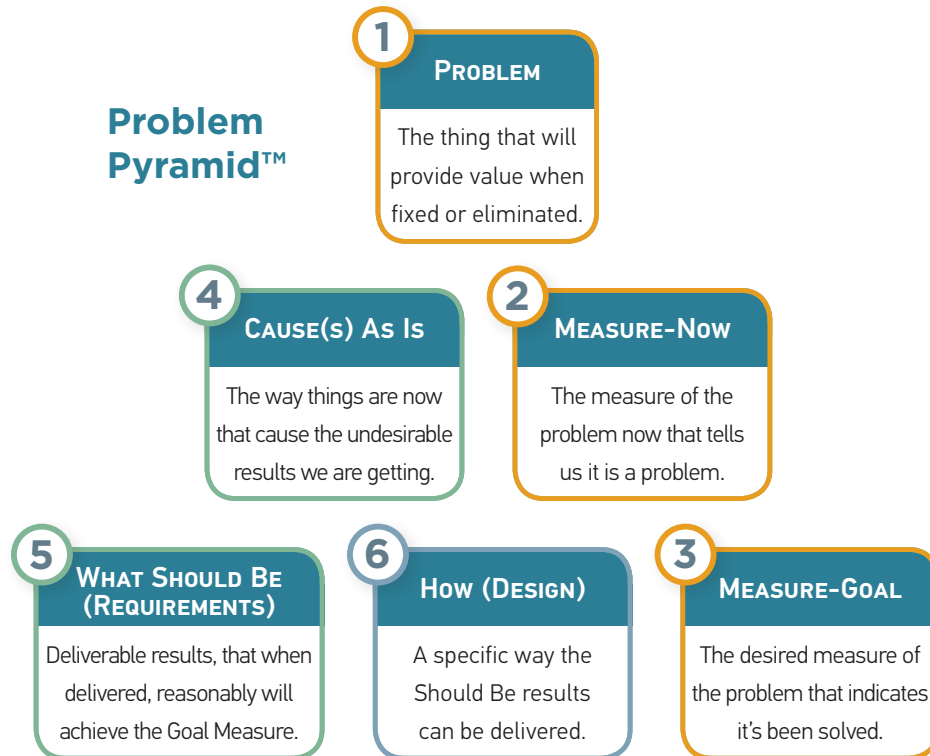
Utility Matrix—A matrix is another possible technique for performing utility analysis. In a matrix, the relative differences in utility values of outcomes are more easily perceived in a matrix than in a tree.

Advanced Utility Analysis—According to Jones, an Advanced Utility Analysis is referring to analysis that involves multiple options, outcomes, and perspectives. A matrix is a helpful technique for analyzing a problem from different perspectives.



PROBLEM PYRAMID

Robin Goldsmith developed the Problem Pyramid™ as a tool to help business analysts focus on identifying the REAL business requirements. The Problem Pyramid™ as depicted in the diagram below consists of six boxes or steps that should be performed in the numbered sequence.



Box 1 must be completed first. It involves identifying the problem, opportunity, or challenge that will provide value when addressed appropriately. Not surprisingly, it's common for the problem to not be identified correctly, which makes chances for proper solution implementation essentially impossible. To help get the problem right, we identify measures of the problem.

Box 2 describes the measures of how things are now, which tell us we have a problem.

Box 3 identifies Goal Measures that tell us the problem has been solved, the opportunity has been taken, or the challenge has been met. Achieving the **Box 3** Goal Measures provides the value, so identifying and quantifying the value is part of getting the problem right. One doesn't solve a problem directly. Rather one must identify and deal with the causes of the problem.

Box 4 describes the current As Is process causes that result in the **Box 2** measures which tell us we have a problem.

Box 5 is the To Be process—the business requirements deliverable that when reasonably delivered will lead to accomplishing the **Box 3** Goal Measures, which achieve the value. The Problem Pyramid identifies the high-level business requirements, which then need to be described in greater detail. No matter how far down in detail they are driven, they are always business deliverables that provide value when delivered.

Box 6 is the design of a product—how to satisfy the **Box 5** business requirements. **Box 6** is where we get the solution requirements. **Box 6** should be a response to **Box 5**. However, people ordinarily start with **Box 6** and not surprisingly fail to provide desired value, because they haven't defined the **Box 5** business requirements that the **Box 6** product must satisfy to provide the **Box 3** value. By following the numbered sequence from **Box 1** through **Box 5** before getting into the **Box 6** how, project success improves dramatically.

Getting the business requirements right in the first place is the key to providing value and cutting creep. The Problem Pyramid may be a difficult tool to use, but it is powerful in getting the problem, value, and requirements right.

ROLE TWO: EVALUATING OPTIONS AND RECOMMENDING THE RIGHT SOLUTION

OUTPUT: SOLUTION EVALUATION AND SELECTION PLAN

Before the BA can start to plan the business analysis approach, he must select the solution for which he will be developing the approach. Knowing the solution is an important factor in planning the approach of a project. At this point, the BA knows the problem, and now the analyst must explore all possible options for correcting the problem. Before the BA has the ability to recommend the right solution, he/she needs to have enough information to evaluate the options. The information required by the BA to successfully evaluate solutions can include:

Project Vision—The project vision statement summarizes the long-term purpose and intent of the project, providing the context for making decisions throughout the course of the project's life. The vision statement will contribute to the decision to initiate the project.

Balanced Scorecard—A balanced scorecard describes measures within four perspectives that will contribute to the development of business objectives. The BA must ensure the four perspectives are addressed and documented in a requirements management tool:

- **Financial**—The easiest way to express cost measurements is in terms of the return on investment (ROI).
- **Customer**—Describe measures that will indicate customer satisfaction.
- **Business Process**—Measure the costs and quality related to business processes.
- **Learning and Growth**—Specify measures that indicate employee satisfaction, employee retention, and knowledge management.

Capability Gaps—Once the capability gaps preventing the enterprise from meeting business needs are identified and the current process is assessed, business analysts are able to determine a solution approach and develop a business case.

Business Case—The formal business case is the document that will be presented for project approval. The purpose of a business case is to provide justification for an investment in a project by comparing the cost of a project with the benefit that it provides.

Solution Scope—The purpose of defining the solution scope is to identify the new capabilities a project will deliver. Without knowing the exact functionality the solution will offer, it may not be possible to gain project approval.

Before the BA can evaluate solutions, he/she must determine the criteria for eliminating unviable solutions. Examples of differentiating criteria include:

- Demonstrates a firm understanding of the requirements and business objectives.
- Addresses each requirement and business objective.
- Delivers a complete plan for implementing the solution.
- The team works closely together and demonstrates complementary skills.
- The user interface or experience of the proposed solution complements its functionality.

Once the business analyst has determined the differentiating criteria, there are a few other planning and preparation activities to determine the *evaluation and selection approach* of the proposed solution. Proper preparation is a very important part of the project and can actually make or break the success of your software evaluation. Ensure the following tasks have been performed to complete the preparation activities:

1. Build the project evaluation team.
2. Identify roles and responsibilities of team members.
3. Define necessary organizational change tasks to help the enterprise make a unified decision.

ROLE THREE: IDENTIFYING AND ENGAGING IMPACTED STAKEHOLDERS

OUTPUT: LIST OF IMPACTED STAKEHOLDERS AND STAKEHOLDER ENGAGEMENT PLAN

After identifying all the stakeholders that are impacted by the project, the BA will be able to determine which stakeholders are influential and which need to be consulted in the requirements development process.

Often, to identify stakeholders, the project manager holds a brainstorming session, which involves the core project team; this group of people identifies potential stakeholders. The core project team needs to use business case information determined earlier to help identify who will be impacted and how those organizations, groups, and/or individuals will be affected. This list should contain details like the specific names of individuals who represent stakeholder groups, ensuring that the core project team is communicating directly with the appropriate people. When identifying stakeholders, keep track of the following topics:

- Who is affected by your work?
- Who falls into what group; what groups are affected?
- Who has, or does not have, a clear role in the project?
- Who could be affected second-handedly?
- Who can support or influence the outcome?

Stakeholders can be divided into three different categories. One possible method for identifying stakeholders is to focus on the three following areas:

SUPPLIERS	RECEIVERS	SUPPORTERS
Stakeholders Project Sponsor Customers Users Business SMEs Business Process Experts Business Rules Experts Technical SMEs Internal Auditors Compliance Officers Market Analysts Legal Organizational Change Help Desk Documents Business Process Models Product Plans and Roadmaps Regulations Audit Reports	Development Team Members Designers System Architect QA and Testing Network Engineer DBA Data Warehouse Workflow Rules manager Business Continuity Security Configuration Management End User Training Business Rulebook Owners Maintenance and Support Staff Help Desk Technical Writers	Project Sponsor Business Process Owner CEO CFO CIO Project Investors

Once stakeholders have been identified, we suggest ensuring that they are documented. This activity can be performed by creating stakeholder personas for each group of stakeholders. A *stakeholder persona* is an individual or group of individuals with similar roles who hold a specific interest in the business. Personas represent individuals who exert influence on business operations in some way, impacting the success or failure of a project. Documenting stakeholder personas in a requirements management tool will ensure the elicitation process is efficient and addresses all stakeholders.

After all stakeholders and stakeholder personas have been identified, the analyst must develop a plan that ensures they are properly engaged throughout the project lifecycle.

In terms of keeping stakeholders up-to-date, talk to each group or individual about how they would like to receive information from you (hint: the easiest way is via a stakeholder collaboration tool like StakeholderPortal™) and what their preferred means of communication are. It may be possible that each type of stakeholder has a different preference for communication. It is the responsibility of the BA to develop a plan for communicating with the various stakeholders. A set of requirements management tools like Enfocus Requirements Suite™ is the easiest way to collaborate with stakeholders. Enfocus Requirements Suite™ helps to ensure stakeholders participate in activities throughout the project lifecycle, such as:

- Reviewing design documents
- Participating in software and prototype demonstrations
- Participating in retrospectives and capturing lessons learned
- Providing additional information for unclear requirements
- Building test scenarios and test cases for user acceptance testing
- Performing user acceptance tests
- Approving changes to requirement specifications
- Defining transition requirements
- Preparing the organization for change

By using a stakeholder collaboration tool, stakeholders have access to all the information they need to know, and can participate in the project by providing feedback to the analysts via features such as news posts, comments, and action items.

ROLE FOUR: ELICITING BUSINESS AND STAKEHOLDER NEEDS

OUTPUT: ELICITATION PLAN

After identifying the impacted stakeholders with which the BA will need to keep in contact, the analyst must determine the elicitation techniques that will be best for the entire group of stakeholders. This will depend on stakeholder preferences regarding engagement. Often, you may find the best decision to be a combination of multiple techniques.

Stakeholder Collaboration Tool—One of the fundamental concepts behind this type of tool is the direct entry of needs by stakeholders. Using this intuitive approach to elicitation, a business analyst can save a lot of time and energy by having stakeholders input needs through a system such as Enfocus Solutions' StakeholderPortal™. Another similar technique would be to use one of the methods mentioned below followed by an analyst's input of data from an elicitation session into the stakeholder collaboration tool.

Focus Groups—Focus groups are a qualitative research method that is used to explore and deepen the knowledge of certain aspects and topics. It is a good practice to assemble a group of typical users, users of a previous service, or even users of a similar service.

Interviews—An elicitation interview comes down to one idea—building a great product begins with asking great questions. One-on-one interviews are a great tool because they can be used in many different situations.

Observations—An analyst observes users (or prospective users) perform their work with an existing service. This is a great technique to validate the data that you have collected from previous elicitation sessions, and, in addition, it can serve as a stimulus for generating new interview topics and questions, catching errors in the existing system, and recognizing possible changes to the service that would improve workflow.

Review of Documents—Many requirements can be extracted from review and analysis of documents such as business process models, existing user documentation, or rules and regulations.

Requirements Workshops—Facilitated requirements elicitation workshops that permit collaboration between analysts and customers are a powerful way to explore user needs and to draft requirements documents. In a requirements workshop, an experienced facilitator will guide workshop by didactically presenting topics and delivering best practices to be discussed.

Surveys—Well-designed surveys, or questionnaires, are a viable means of familiarizing yourself with user needs. The business analyst often holds a focus group or requirements workshop before or after releasing an employee survey. Surveys are a useful technique for quickly gathering data from a large group of participants, and they are an inexpensive way to gather objective data from stakeholders.

Stakeholder needs do not always have to come directly from the stakeholders. If possible, stakeholder needs should be elicited from the actual stakeholders themselves; however, the BA may discover needs by reviewing existing systems and business process documentation. When determining the elicitation techniques that will be used, the BA should try to answer the following questions as completely as possible:

- Will needs be gathered in an iterative and incremental fashion or all at once? This information should affect the scheduling and type of elicitation activities.
- Will business rules be gathered by business stakeholders? If so what rule books are needed? The BA may need to set up the necessary rule books in a requirements management tool so that related stakeholders have the ability to maintain rules.
- How will assumptions be documented? Often, stakeholders just assume the BA knows about certain needs that are obvious to stakeholders themselves. Consider the following common types of assumptions:
 - Transaction volumes
 - Data volumes
 - Number of users
 - Hours of use
- Which individual stakeholders will be included in elicitation efforts? Often, the project has too many stakeholders for the BA to ask each individual person about their needs. In this case, it is best to select a couple respected stakeholder representatives from each persona to work with the BA and participate in elicitation workshops, requirements validation, and other activities.

ROLE FIVE: DEFINING REQUIREMENTS

OUTPUT: REQUIREMENTS DEVELOPMENT PLAN

An essential part of the business analysis approach is a plan for defining requirements once needs have been elicited and use cases have been developed. Although documenting requirements is as simple as entering them into a requirements management tool like RequirementPro™, developing them takes a considerable more amount of deliberation.

To create a requirement development plan, the BA must consider the *amount of design* that will be included in the requirements. Remember, earlier we mentioned design teams may dislike the BA to perform design activities, like modeling or other visualization techniques. But, if there is no design team a lot of the design work will fall on the shoulders of the BA. The amount of design that is necessary will dictate how much detail the BA must add and the type of visualizations he/she must create to complete the requirement. If the BA has an understanding of how much design he/she must provide, he will be able to determine the following aspects about the requirements that will be developed:

- Data or document driven?
- Light or heavy in detail?
- Formal or informal?
- Iterative or Fixed?
- Incremental or Fixed?

Knowing the approved development style (Agile, Waterfall, etc.), the BA can make a decision concerning the format of the requirement specifications. Requirements are not complete as simple statements. They need to adhere to some sort of format that has been set in place prior to beginning to develop requirements. The list below includes possible considerations for the format of your requirements:

- **Use Cases** may be the best way to represent user requirements. This method is commonly employed in Agile development.
- **User Stories** are another method commonly used in Agile development that present requirements from the perspective of an actor.
- **Textual Requirements** imply that all descriptions and details are provided via text, and not the use of visualizations. Textual requirements without visualizations may be appropriate for developing requirements that avoid design.
- **Requirement Patterns** are templates that provide guidance on how to write specific types of requirements.
- **Requirement Attributes** are additional characteristics of a requirement that are needed to ensure all details are provided to the design team. If a seemingly non-functional requirement is not atomic, or independent of other requirements, then it is probably an attribute of another requirement.

- **User-Centered Design** is an approach that emphasizes early and continuous involvement of users in the design and evaluation process. If there is no design team, the BA will want to consider user-centered design elements in the requirement development process.

There are many techniques created specifically for aiding the definition of requirements. Before the BA can begin developing requirement specifications, he/she will need to determine the techniques that would be best for the project at hand. The following tools and techniques are described by Ellen Gottesdeiner and Mary Gorman in their book, *Discover to Deliver: Agile Product Planning and Analysis*.

- **Acceptance Criteria List**—Used to identify what to test when you’re validating a solution, feature, or requirement.
- **Business Rules**—Precise textual statements that define, constrain, or enable the behavior of systems, business processes, and data structures.
- **Business Process Diagram**—Shows the flows between related actions needed to achieve a valued result.
- **Capability Map**—Identifies your organization’s business capabilities: a combination of people, process, and technology.
- **Context Diagram**—Illustrates interfaces in a logical manner by showing a system or portion of a system in its environment along with the external entities that send data to the system and receive data from it.
- **Contextual Inquiry**—The study of users in their environment by eliciting details about what users do to understand their needs.
- **Data Dictionary**—A catalog of the data attributes that a product needs.
- **Data Example**—Provides concrete, specific data used to explore, evaluate, and confirm system needs.
- **Decision Table or Tree**—Illustrates a set of conditions to reach a business conclusion.
- **Dependency Graph**—Visualizes relationships between elements in which one element (the client) requires or depends on another element (the supplier).
- **Event and Response**—A table displaying events, the triggers that cause the business to respond, and the triggers’ responses, or predefined actions.
- **Given-When-Then**—A way to express a scenario with data, including preconditions and postconditions.
- **Glossary**—A collection of business terms and concepts relevant to the system, along with their definitions.
- **Interaction Matrix**—A means to explore, evaluate, and confirm the expected benefits of actions on data.
- **Options Board**—A visual space, usually mounted on a wall, used by a team to explore and evaluate system options.

- **Persona**—A written description of a typical user’s background, including relevant details such as responsibilities and goals.
- **Language**—A keyword-driven language designed to specify product needs quantitatively in natural language.
- **Plan**—Consists of the best estimates of what might be delivered during a given planning horizon to achieve value.
- **Product Vision**—A document that articulates the long-term concept of a product.
- **Prototype**—A representation of a solution. Popular examples include wireframes and detailed mock-ups.
- **Quality Attribute Scenario**—Characterizes quality attributes as high-level scenarios using a template specification.
- **Scenario**—A text description of an instance of use which helps to validate system needs.
- **Scenario Z Pattern**—Uses scenarios as a path to explore options across planning views.
- **State Diagram**—Shows the allowable transitions from one data state to another.
- **Story**—A system need expressed as a user’s goal. A story can be catalogued in a queue or product backlog.
- **Story Map**—Organizes stories in logical order according to two dimensions: usage sequence and business importance.
- **Use Case**—Describes how a user’s goal is achieved through interacting with a system.
- **User Role Map**—Visually represents the various types of user roles and their relationships among them.
- **Value Stream Map**—Shows the end-to-end sequence and movement of information, materials, and actions in the value stream.
- **Value Tools**—Tools that help to ensure that the product’s options align with your strategy and are feasible, desirable, and financially viable.

If the BA is going to be responsible for the design of the system, he/she will benefit from the use of certain modeling techniques. Consider the following types of requirements models and determine if any will work with your requirements development plan.

- **Business Process Model**—Represents the processes of the organization so that they can be analyzed and improved.
- **Data Model**—Defines and analyzes data requirements that are needed to support business functions.
- **Use Case Model**—Identifies how users will use the system by defining actors and use cases.
- **Prototype/Interface Model**—A prototype depicting the system’s interfaces, which is built, tested, and reworked until an acceptable prototype is achieved.

ROLE SIX: FACILITATING COLLABORATION BETWEEN BUSINESS AND DEVELOPMENT TEAMS

OUTPUT: COLLABORATION PLAN

The analyst mainly collaborates with two separate entities—enterprise stakeholders and developers working for the organization. The language you use when communicating with each group and the ways in which you work with the two different groups will differ. When performing Role Two, the BA identifies all relevant stakeholders and determines a plan all the business units involved with the project. The form of communication will need to be appropriate for the team's level of expertise and understanding. For example, communication with developers must be crystal clear to enable developers to create the system required by the stakeholders.

Ensuring collaboration between business and development teams is one of the most vital roles performed by a business analyst. Without business analysts, the stakeholders and developers must communicate directly, and developers themselves are faced with the task of determining what to develop to satisfy stakeholder needs. Assuming that developers have no time to spend attention to organization or analysis, this can present a problem: the goal of the stakeholders is to get what they want very quickly, and the goal of the developers is to give the stakeholders what they want as quickly as the developers can provide it. This can lead to creating changes in a vacuum and not necessarily taking the needs of all users of the system into account, depending on the organizational knowledge skills of the involved developers. Then the organization is in a situation where there are rarely any detailed definitions of the requirements. Furthermore, the real reason for a stakeholder need often may not make good business sense or provide any quantifiable value. One of the responsibilities of the BA is to ensure proposed solutions provide business value.

ROLE SEVEN: ENABLING BUSINESS CHANGE AND TRANSFORMATION

OUTPUT: CHANGE MANAGEMENT PLAN

The implementation of an application usually results in changes to the organization's structure, process, systems, and/or jobs. Whenever change occurs within the organization, it requires planning to ensure the change is implemented in a manner embraced by all stakeholders. Business change is inevitable; however, stakeholder acceptance of change often varies. It is the responsibility of the BA to facilitate change throughout various business units, acting as an "agent of change" and ensuring changes are successfully accepted by the impacted individuals. The BA must also ensure that changes are deployed in a way that provides value to the organization. The business activities that are involved with enabling business change include the following:

- Delivering communications
- Collaborating with business units
- Planning testing and training activities
- Facilitating post implementation support

An important part in planning the business analysis approach is to determine how to handle change in the organization. When it comes to handling new solutions, there are a few common mistakes that can possibly lead to organizational opposition, and possibly/ eventually to an unsuccessful change or solution. Before the BA can facilitate any changes, it is important to determine the techniques and methods that will be best for introducing change to the organization. We suggest using a set of requirements management tools like Enfocus Requirements Suite™ and a good requirement development process to ensure the following common IT failures do not happen to your organization or project:

- **Poor Communication**—IT describes the changes and benefits of a project in IT terms and not in terms of business value, alienating stakeholders and giving them no reason to accept changes.
- **No Collaboration**—IT does not provide opportunities to engage clients in development of changes, and does not seek adequate input to changes until it is too late to make corrections.
- **Inadequate Training**—Only general training is provided, often without adequate hands-on experience. Users do not know how to adapt to changes in their work scenarios.
- **Lack of Support**—After implementation, IT closes the book and moves onto the next project. In the meantime, stakeholders are still trying to come to grips with the new methods and no support is provided.

Using a requirements management tool helps to ensure you have efficient methods of communication and collaboration. Developing a good requirement development process will help to ensure you do not forget to address the training and support requirements.

It is essential to remember the three C's when preparing and performing a change management plan. If the BA focuses on these three goals, he/she can successfully reduce resistant behaviors, facilitate faster organizational uptake, and expedite the delivery of full benefits of change.

- **Communication**—The BA needs to communicate with the stakeholders to ensure they understand why the change must occur. It is important that the BA effectively describes to the stakeholders how a problem is being solved and how it will impact them. Communication helps to ensure stakeholders support the solution. When communicating change to stakeholders, a good practice is to describe the benefits in terms that are popularly used by stakeholders. For example, tell the stakeholders how the changes will enable them to perform their work faster and reduce the amount of data entry. Do not tell them that the Web-based customer management system will improve backup and recovery times. They do not care how it works, only how it will help them work.
- **Collaboration**—When the BA collaborates with all of the different stakeholder groups, he/she can ensure benefits will impact the entire organization. Ensuring all impacted business units successfully work together helps the organization to achieve one shared vision.
- **Confidence**—Stakeholder confidence in the final solution is essential. By including users in testing and ensuring they are provided with the necessary training and support, the BA can successfully build the confidence needed for the solution to meet its goals and provide benefits. Keep in mind that the greatest opportunity for stakeholder confidence building is when they can see and touch the final product for themselves. Also, stakeholder participation in testing will help to confirm that the new system operates as designed. However, it is important for the BA to remember that he/she cannot build stakeholder confidence unless the BA has already developed a communicative and collaborative relationship.

As you work through your project, you will most likely find that requirements tend to change over time. One responsibility of the BA is to ensure there is a plan in place for change management. A *change management* plan consists of multiple components. The most important aspects that should be planned include the types of communication that will be used and the training and support that will be required to facilitate change.

COMMUNICATION PLAN

The most important part of the change management plan is the communication aspect. Before the BA can begin to provide stakeholders with an understanding of solution importance, he/she must determine the techniques that will be best. There are four major project phases for which you will need to determine the appropriate methods of communication:

PHASE 1: INITIATE

Focus communications in this phase on securing senior management support for upcoming changes. The goal here is to strengthen executive buy-in. The most important messages should come from leaders in the organization who have the ability to garner support for change. The types of communication that should be used at this point can include:

COMMUNICATION TYPE	DESCRIPTION
Project Kickoff	Formal meeting to launch the project, raise awareness, and get support for high level objectives and goals of the change.
Status Meetings/Reports	Provide updates on project progress to project stakeholders and keeps them engaged. If meetings are not possible, reports can be made via email (but beware: some stakeholders lose emails among the crowd) or through a requirements management tool like RequirementPro™.
Informal Discussions/ Elevator Speech	Informal one-on-one or small group discussions to answer questions, ensure understanding, and gain support.
Risk/Issues/Exception Reports/Meetings	Ensure issues are addressed and demonstrate IT's ability to anticipate and resolve problems. We suggest communicating issues via a requirements management tool.
Email Updates	Communicate project information that does not require critical decisions.

PHASE 2: DESIGN/BUILD

In this phase, talk to project stakeholders who will provide support and be advocates for change throughout the project. The goal for the BA at this phase in the project is to direct the team and define usable requirements. It is important that the BA begins communication early in this phase and frequently states the project objectives and goals to ensure stakeholders do not lose focus on why the change is needed. When planning the communication during this phase, consider the following types:

COMMUNICATION TYPE	DESCRIPTION
One-on-One	Engage and get input from individual stakeholders.
Focus Groups	Engage and get input from large groups of stakeholders.
Define Requirements	Document the agreed understanding of the change impacts.
Project Plan	Communicate project tasks and timelines for each project contributor, building accountability.

PHASE 3: DEPLOY

It is important that stakeholders are given the facts before they begin to make up their own. Remember that ignorance is not bliss and will most likely sabotage your acceptance generating efforts. The goal during the deployment planning phase is to prepare users for the new processes. The BA is responsible for telling stakeholders *what is going to happen*, *when it will happen*, and *how it will impact them*. In addition to the possible communication types listed below, you may decide to communicate with stakeholders via email. We suggest that you remember to use email sparingly, as important information often gets lost in daily email clutter. When determining the change communication plan, consider the following communication types for the deployment phase:

COMMUNICATION TYPE	DESCRIPTION
Demos	Stakeholders are shown how the system works to remove fear of the unknown.
Road Shows	Town-hall style presentation of project to build awareness of change.
Posters/Trinkets	Reminders that change is coming and to keep awareness alive.

PHASE 4: POST IMPLEMENTATION

It is the responsibility of the BA to ensure the appropriate channels of communication are provided for post-implementation support to enable dialogue about issues and problems. He/she can do this by ensuring the necessary requirements are developed. The goal at this phase in the project is to ensure users are provided with post-implementation support. The BA should consider the following communication types when planning post-implementation communication:

COMMUNICATION TYPE	DESCRIPTION
Frequently Asked Questions	By providing a document to which users can easily refer when in search of answers to common questions, the BA demonstrates IT's ability to anticipate user issues and proactively solve them.
Project Review	Performed once a solution is delivered to show the organization that IT values stakeholder input.
Lessons Learned	Hosting a Lessons Learned session will demonstrate the organization's commitment to improvement.

Stakeholder transparency is key in ensuring the changes sparked by the solution are accepted by the users that are affected by the changes stated earlier. As we said before, it is important that the BA lets stakeholders know *what is going to happen, when it will happen, and how it will impact them*. It is a good idea to let managers make these kinds of announcements, because when people can't get information from official sources, they'll most likely turn to the rumor mill. If stakeholders know they are being informed of important information as soon as it is known, it's more likely they will be accepting of change and willing to collaborate with the BA to ensure the solution meets their needs. Some of the most important information includes issues that were encountered and lessons learned after the project. This information should be available to stakeholders as it will benefit them to have that knowledge in future projects. Remember, failure to communicate important information will increase stakeholder resistance and prolong post-implementation support. On the other hand, open communication of issues and their resolutions as they occur will help to maintain IT's credibility with the rest of the organization.

TRAINING AND SUPPORT PLAN

After communication, the next important activity when facilitating change within the organization is to ensure the users of a new or updated application are provided with a comprehensive *training and support plan*. When developing this part of the change management plan, it is important to work closely with developers and the stakeholders working with the application. To create a training and support plan, BA must perform the following activities:

- **Determine requirements for trainers.** This can include knowledge, resources, etc. You will most likely need to consult developers to determine these requirements.
- Identify areas affected by the change. List all the impacted services or business units.
- **Determine the training needs of impacted areas.** How much training will each business unit need? What functions will they need to perform?
- **Analyze training needs assessment and perform skills gap analysis.** The user skills of stakeholders often varies.
- **Develop training schedule.** Ensure the stakeholders are provided with enough time away from their duties to attend necessary training sessions. Remember to allow time for slower learners. You may need to provide small group or one-on-one training.
- **Supplement training with documentation.** This should be something that clients can fall back on, if needed. Necessary user manuals or FAQ guides should not be neglected in the requirements specifications.

ROLE EIGHT: ENSURING THE SOLUTION DELIVERS BUSINESS VALUE

OUTPUT: BENEFITS REALIZATION PLAN

The last role performed by a business analyst is arguably the most important. To ensure solutions deliver business value, many organizations today are implementing Benefits Realization Management plans.

Benefits are defined as the measurable improvements that will result from solution outcomes perceived as positive by stakeholders. Note that the benefits of a solution are not the actual outcomes themselves—an outcome is the source of a benefit. Benefits such as “more sales” or “faster response time” cannot directly be made to happen. To ensure the solution delivers value to the business, the BA must collaborate with various business units to determine which solutions will provide the desired benefits. It is also important for the BA to collaborate with benefit owners (individuals positively affected by the benefits) and stakeholders in the identification of measurements that indicate whether benefits have been achieved.

That's where benefits realization management comes in. *Benefits realization management* (BRM) is the process of organizing and managing potential benefits that arise from investment in change to ensure the benefits are achieved. BRM is a continuous process that occurs throughout the project lifecycle. The process begins once the BA has documented the business case, which includes a section listing the benefits of the proposed solution. To ensure benefits are successfully achieved, it is good practice for the the project team to ensure the following activities are performed:

- Prepare a realistic and accurate business case. The business case should not just be used to secure funding, but should also be used as a management tool to measure success.
- Develop measures for determining project success. The measures should be based on whether the business benefits proposed in the business case were achieved. The ultimate success of a project involves much more than successfully delivering the solution on time, on budget, and within planned scope.
- Use the right process and tool to ensure value is achieved. Currently, there is only one tool on the market that helps manage value delivery from concept to achievement of business benefits—Enfocus Requirements Suite™. Enfocus Requirements Suite™ and its integrated business analysis methodology, Requirements Excellence Framework™, provide full support for capturing the business case, eliciting needs from stakeholders, developing and prioritizing requirements to meet stakeholder needs and provide value, and managing the benefits through the solution lifecycle including development and post-implementation.

The *benefits realization plan*, a vital component of the business analysis approach, must be created early in the project lifecycle, once the business case has been documented. The benefits that were outlined in the business case must be listed in the plan, along with the information that will help to evaluate the benefits realization. The benefits realization plan must include four key components:

1. Descriptions of all benefits of the solution.
2. How the benefits are to be measured.
3. Who will be accountable for measuring and delivering benefits.
4. When benefits will be measured.

The most important element of the benefits realization plan is to document how the benefits are to be measured and exactly what measurements are to be used. These measurements must be referred to throughout the project lifecycle. The ROI will most likely be the ultimate indicator of project success, but the BA should ensure there are more measures set than that. A common method for determining measurements is to use *Key Performance Indicators* (KPIs), which are significant measures used to monitor how well a business is achieving its quantifiable objectives. Many KPIs have already been defined for various situations; for an extensive collection of example KPIs that can be used or altered to fit the organization's needs, BAs may refer to a best practice research community like *RequirementCoach*™ (provided with Enfocus Requirements Suite™), which contains hands-on, one-on-one information, guidance, and mentoring in developing and managing requirements.

Once the benefit measurements have been determined, the BA must then determine and document the methods for collecting measurements, as well as the required effort to obtain measurements and the necessary time frames. For example, one possible method for determining user satisfaction is to distribute a satisfaction survey among stakeholders. In the benefits realization planning phase, the BA should determine the details of the survey (the date the survey will be distributed, how the content of the survey will be determined, the date the survey must be completed by, etc.) before moving further along in the project lifecycle. Lastly, the BA must determine and document the roles and responsibilities of project contributors. It is important that all benefit owners and relevant stakeholders are aware of and understand their part in the benefits realization process.

The benefits realization plan should be easily documented in a requirements management tool. As the information is known, the BA should enter it into the application. The information included in the business objectives of the solution makes up the required information in the plan. Refer to the screenshot below for an example of a business objective (benefit) record in RequirementPro™. In a requirements management tool like this, the BA can document the measure that will be used, the method for collecting the measures, the current baseline measurements, as well as all of the other important details. To extract a copy of the plan, use the report tool in the top right corner of the menu bar.

The screenshot displays the RequirementPro™ web application interface. The top navigation bar includes tabs for Home, Project, Impacts, Features, Requirements, Bundles, and Verification & Validation. Below this, a secondary navigation bar shows Project Dashboard, Project Overview, Business Objectives (selected), Constraints, and Project Attachments. The main content area is titled 'Business Objective: Support efficient client care'. On the left, there is a sidebar with 'Objective Detail' (selected), 'Features', and 'Record History'. The main panel shows a 'Summary' form with the following fields:

Reference Number: BUSO-00007	Name: Support efficient client care	Type: Impact
Description: Decrease the wait time for a client to be seen by a physician from 2 hours to 20 minutes by January 2014		
Measure: Wait Time to be seen by physician		
Data Collection Method and Frequency: Sampling		
Baseline: 2 Hours		
Expected Outcome and Timeframe: 20 minute by January 2014.		
Accountability:		

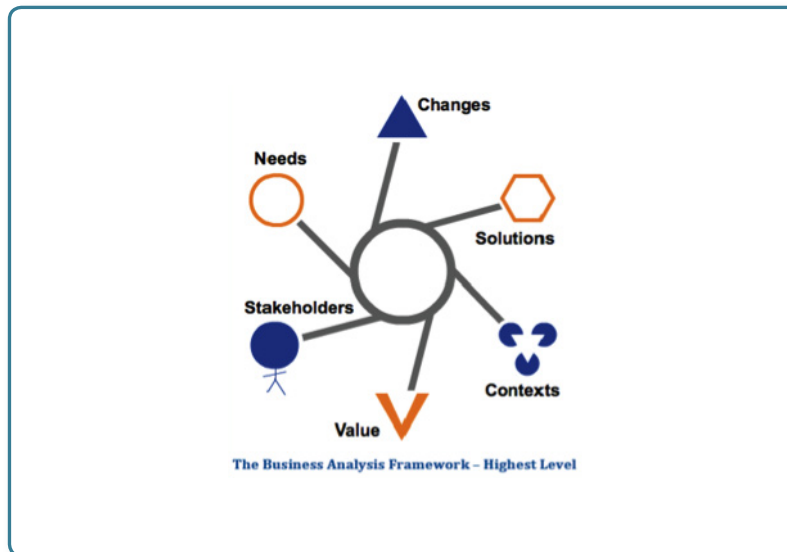
At the top right of the Summary form, there are 'Edit' and 'Delete' buttons.

APPENDIX A: BACCM CHECKLIST

According to BABOK V3, business analysis is defined as:

*“The practice of enabling **change** in an organizational **context** by defining **needs** and recommending **solutions** that deliver **value** to **stakeholders**.”*

This definition clearly shows that the business analyst serves as a facilitator for business change and transformation. This new definition of business analysis comes from IIBA’s Business Analysis Core Concept Model (BACCM). The BACCM is a tool for analyzing change at any level in an organization, which includes activities like setting organizational strategy or implementing a single feature/component on a small maintenance project. At the foundation of BACCM™ are six core concepts: change, need, solution, context, stakeholder, and value. All of the concepts are equally necessary and no single concept can be fully understood until all six are understood. The six core concepts are presented in the diagram below. Ensure that each of the considerations for the core concepts provided in the following sections have been addressed.



CONTEXT	✓
Business Environment determined	
• Stability	
• User adoption	
Project Lifecycle determined	
• Is it plan-driven?	
• Is it change-driven?	
Type of Project determined	
• Business Intelligence	
• Merger or Acquisition	
• Collaboration	

SOLUTION	✓
Complexity of the solution defined	
• Number of stakeholders	
• Number of impacted business processes	
• Location of stakeholders	
• Amount and nature of risk	
How the solution will be achieved is determined	
• Purchase	
• Build	
• Outsource	
• Multi-Source	
All components are addressed	
• People	
• Process	
• Technology	
All constraints are determined	
• Budget	
• Time	
• Architecture and Technology	
Project phases are determined	
• Quick Wins	

CHANGE	✓
Business process changes determined	
Organizational changes determined	
Technological changes determined	

NEED	✓
Five types of objectives are defined according to the ROI Institute	
• ROI	
• Impact and Consequences	
• Application and Implementation	
• Learning	
• Reaction and Perceived Value	
Solution characteristics are defined	
Problem or opportunity determined	
Urgency of the need determined	
Four balanced scorecard dimensions are defined	
• Finance	
• Customer	
• Business Process	
• Learning and Growth	

VALUE	✓
Solution's economic value determined	
• Will it increase revenue?	
• Will it decrease costs?	
• Will it increase shareholder/taxpayer value?	
• Will it bring in new customers?	
• Will it bring in more money from existing customers?	
Solution's business value determined	
• Cash Cycle	
• Days of inventory	
• Days of receivables	
• Days of payables	
• Efficiencies	
• Headcount reduction/avoidance	
• Productivity	
• Employee turnover	
• System end-of-life	
• Discounts	

• Hardware/software investment avoidance	
• Unit cost and other cost avoidance	
• Factory uptime	
• Reduce waste	
• Risk avoidance	
• Time to market	
• Markets	
• Opening new markets	
• Optimizing existing markets	
• Cross-selling	
• Customer excellence program	
Individuals receiving personal benefits determined	
• Personal Gains	
• Relieving Pains	

STAKEHOLDERS	✓
Types and number of stakeholders determined	
• Executives	
• Project Management	
• Business Stakeholders	
• End Users	
• Developers	
• QA	
• Compliance	
Location of stakeholders determined	
• Collocated	
• Geographically dispersed	
Internal and External Stakeholders determined	
• Customers	
• Suppliers	
• Partners	
• Others	