
Vision and Scope Document

for

Barangay Magallanes Business Document Management System

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1. Business Requirements

The business requirements for this project includes a business document management system to serve Barangay Magallanes as well as the Association of Barangay Magallanes Business Stakeholders Inc. (ABMBSI), serving as a digitized solution to complement the current, physical, and outdated digital information system that Barangay Magallanes has in place, as well as a means for ABMBSI to showcase their services to Barangay Magallanes business owners. The proposed system will provide a digitized version of the processes involved in the current system to address the woes faced by both Barangay Magallanes staff and Barangay Magallanes business owners in the current system.

1.1. Background

Barangay Magallanes, situated in Makati, the financial hub of the Philippines, is home to Asia Pacific College (APC) and a thriving community of businesses. ABMBSI, a non-profit organization founded in 2009, plays a crucial role in fostering business interactions and community spirit within the area. With more than a thousand members, ABMBSI collaborates with local businesses, including APC, as evident in their recent memorandum of agreement. Despite having a website and a quarterly publication, The Nest magazine, the association faces challenges in engagement and service delivery. The existing website, now inactive due to an expired subscription, lacked database utilization and failed to meet the association's goals. Additionally, issues with Barangay Magallanes' manual document request system and a lack of communication hinder the effective promotion of ABMBSI membership. In response, the ABMBSI Dream Team, comprising APC students, including team ALVa from the School of Computing and Information Technologies, aims to revamp the website's backend and develop a digital business document management system. This initiative seeks to enhance the online accessibility of ABMBSI and Barangay Magallanes' services and streamline interactions between the association and Barangay Magallanes personnel, addressing current challenges and fostering growth for the next two years.

1.2. Business Opportunity

The business opportunity identified involves addressing multiple challenges in the current state of the ABMBSI website and Barangay Magallanes' document request system. The ABMBSI website, hosted on Wix, is inactive due to an expired subscription, indicating a lack of active maintenance. Meanwhile, the barangay's manual document request system, coupled with a localized information system with no backup, leads to inefficiencies, especially during power outages. Communication hurdles and illegible handwriting further complicate ABMBSI membership processes. The proposed solution, the Barangay Magallanes Business Document Management System, aims to digitize and streamline document processes, reducing in-person transactions and improving information accessibility for business owners. This solution aligns with the broader trend of digitalization and cloud-based systems, presenting an opportunity to enhance efficiency and address the existing challenges in both ABMBSI's online presence and Barangay Magallanes' document management procedures.

1.3. Business Objectives and Success Criteria

1. Transcription Error Reduction:

- Objective: Achieve a 90% reduction in transcription errors by implementing a system that ensures clear and legible data input, addressing the challenges associated with handwritten paper forms.
- Success Criteria: Conduct regular audits, comparing the accuracy of data input between the BMBDMS and the previous manual system, and demonstrate a consistent 90% or higher reduction in transcription errors.

2. Processing Time Efficiency:

- Objective: Shorten the processing time for business-related documents by 80%,

eliminating the reliance on physical logbooks, paper forms, and long waiting times.

- Success Criteria: Measure the average processing time for permits and other documents before and after BMBDMS implementation, achieving an 80% or more reduction in the time taken for complete processing.

3. Improved Data Storage and Retrieval:

- Objective: Enhance the storage and retrieval of applicant information, ensuring ease of access and organization by transitioning from manual data transfer to a digital platform.
- Success Criteria: Assess the speed and accuracy of data retrieval within the BMBDMS, demonstrating a significant improvement compared to the previous manual system.

4. Efficient Communication Channels:

- Objective: Provide a new and efficient means of communication between applicants and Barangay personnel, reducing reliance on physical logbooks and paper forms.
- Success Criteria: Measure the reduction in physical documentation and assess the efficiency of communication through the BM-BDMS, achieving a 30% or more reduction in reliance on traditional communication methods.

5. Virtual Payment Channel Effectiveness:

- Objective: Offer a convenient and secure virtual payment channel for requested documents and association joining fees, ensuring seamless payment processing and accurate record-keeping.
- Success Criteria: Monitor the adoption rate of the virtual payment channel and achieve a target of 80% or higher customer satisfaction with the payment process.

6. Data Management Resilience and Uptime:

- Objective: Develop a reliable and resilient data management solution that ensures at least 90% web app uptime, minimizing the risk of data loss and maintaining operational continuity.
- Success Criteria: Regularly monitor and document the web app's uptime, consistently achieving 90% or higher uptime over a specified period.

7. User-Friendly Online Services:

- Objective: Design a user-friendly online platform that provides information about ABMBSI and extends its services to the Barangay Magallanes community, enhancing user convenience.
- Success Criteria: Conduct user satisfaction surveys and achieve a target of 85% or higher satisfaction with the user-friendliness of the BMBDMS platform.

8. Data Security and Confidentiality Assurance:

- Objective: Implement robust security measures to safeguard sensitive information and ensure that only authorized personnel have access to specific data and transactions.
- Success Criteria: Conduct security audits and assessments, achieving compliance with data protection regulations and maintaining a record of zero unauthorized

access incidents.

9. Adaptability and Scalability:

- Objective: Develop a system that is adaptable to changing needs and scalable to accommodate potential growth in the future, integrating new features and services as the requirements evolve.
- Success Criteria: Demonstrate the successful integration of at least two major updates or new features within the first year of implementation, showcasing the system's adaptability and scalability.

By aligning these business objectives with measurable success criteria, the BMBDMS project can establish clear benchmarks for evaluating its impact on the efficiency of local business-related services in Barangay Magallanes. These criteria provide a quantitative basis for assessing the system's performance and demonstrating its value to the community and stakeholders.

1.4. Customer or Market Needs

In response to the identified challenges faced by Barangay Magallanes in collaboration with ABMBSI, the development of the Barangay Magallanes Business Document Management System (BMBDMS) emerges as a pivotal solution aimed at revolutionizing and enhancing the efficiency of local business-related services. The current manual system's drawbacks, including illegible form inputs, prolonged processing times, and data update disruptions during power outages, necessitate a transformative approach to streamline processes and improve overall service delivery. Recognizing the pressing needs of both applicants and Barangay Magallanes staff, the BMBDMS is designed to address these challenges through the following needs as follows:

1. Enhanced Data Legibility:

- Customers need a system that addresses the issue of illegible handwritten information on paper forms. The solution should ensure that data input is clear, minimizing transcription errors and facilitating accurate interpretation.

2. Efficient Information Processing:

- Customers require a streamlined process for business owners and entrepreneurs applying for permits. The new system should significantly reduce the processing time by eliminating the need for physical logbooks, paper forms, and long waiting times, thereby enhancing overall efficiency.

3. Improved Data Storage and Retrieval:

- Customers seek a solution that enhances the storage and retrieval of applicant information. The system should provide a digital platform that eliminates the challenges faced by Barangay Clearance Officers when manually transferring information into their systems, ensuring ease of access and organization.

4. Reliable Communication Channel:

- Customers desire a new means of communication that eliminates reliance on physical logbooks and paper forms. The system should facilitate efficient communication between applicants and barangay personnel, ensuring a seamless exchange of information and reducing the need for physical documentation.

5. Virtual Payment Channel:

- Customers need a convenient and secure method for paying for requested

documents and association joining fees. The system should offer a virtual payment channel that ensures seamless payment processing, transaction security, and accurate record-keeping.

6. Data Management Resilience:

- Customers require a reliable and resilient data management solution that addresses disruptions caused by power outages. The system should seamlessly synchronize and back up data between the local server and a secure cloud-based storage system, ensuring data integrity, minimizing the risk of data loss, and maintaining a high level of operational continuity.

7. Web App Uptime Assurance:

- Customers expect a web application with a high level of uptime. The system should guarantee at least 90% uptime to ensure continuous access to online services, even during server disruptions or maintenance activities.

8. User-Friendly Online Services:

- Customers seek a user-friendly online platform that provides information about ABMBSI and extends its services to the Barangay Magallanes community. The system should be designed with a focus on user convenience, making it easy for both applicants and barangay personnel to navigate and utilize the platform efficiently.

9. Data Security and Confidentiality:

- Customers prioritize the security and confidentiality of their data. The system should implement robust security measures to safeguard sensitive information, ensuring that only authorized personnel have access to specific data and transactions.

10. Adaptability and Scalability:

- Customers require a system that is adaptable to changing needs and scalable to accommodate potential growth in the future. The solution should be flexible enough to integrate new features and services as the requirements of Barangay Magallanes evolve over time.

The following enumerated customer or market needs encapsulate the essential requirements that the BMBDMS aims to fulfill, underscoring its commitment to fostering a more convenient, secure, and seamless business environment for the Barangay Magallanes community.

1.5. Business Risks

1. Competition from Established Systems and "Fixers":

- **Risk:** BMBDMS may face competition from already-established business document management systems that are widely adopted in the market. Additionally, local "fixers" who provide manual document management services could pose a challenge, especially if they are deeply entrenched in the current workflow.
- **Severity:** High
- **Mitigation:** Differentiate BMBDMS by highlighting its unique features, superior efficiency, and cost-effectiveness compared to existing systems. Implement targeted marketing strategies to showcase the advantages of choosing BMBDMS over traditional or rival solutions.

2. Integration Challenges with Existing Systems:

- **Risk:** Compatibility issues may arise when integrating BMBDMS with existing systems or processes used by Barangay Magallanes or ABMBSI.
- **Severity:** Moderate to High
- **Mitigation:** Prioritize thorough compatibility testing during the development phase. Collaborate closely with IT teams to ensure seamless integration with existing systems. Provide user training

and support during the transition to mitigate challenges associated with system integration.

3. Resistance from Traditional Workflow Advocates:

- *Risk:* Individuals or groups within the Barangay community who are advocates for traditional manual processes may resist the implementation of a digital system.
- *Severity:* Moderate to High
- *Mitigation:* Engage with key stakeholders early in the development process. Conduct awareness sessions and address concerns about the digital transition. Showcase the long-term benefits and efficiencies gained by embracing a modern document management system.

4. Data Security Concerns:

- *Risk:* The digital nature of BM-BDMS raises concerns about data security, potential breaches, or unauthorized access, leading to compromising sensitive information.
- *Severity:* High
- *Mitigation:* Implement advanced encryption protocols and security measures to safeguard user data. Conduct regular security audits and ensure compliance with data protection regulations. Educate users about security best practices to mitigate risks associated with human factors.

5. Technological Dependencies:

- *Risk:* The system's functionality may depend on external factors, such as internet connectivity and third-party services, posing a risk of disruptions or limitations in service.
- *Severity:* Moderate to High
- *Mitigation:* Establish redundant systems and backup solutions to minimize the impact of technological dependencies. Develop contingency plans for instances of service interruptions, ensuring that essential functionalities remain accessible even during temporary outages.

6. Regulatory Compliance:

- *Risk:* Changes in local regulations or legal requirements related to document management and data privacy may pose compliance challenges for the BM-BDMS.
- *Severity:* Moderate to High
- *Mitigation:* Regularly monitor and stay informed about relevant regulatory changes. Ensure that the system is designed and updated to comply with all applicable laws. Establish legal consultations to address any potential compliance issues proactively.

By acknowledging and addressing these specific risks associated with competition from established systems and traditional practices, the BM-BDMS can better navigate the challenges and successfully establish itself as an integral and preferred solution for business document management in Barangay Magallanes.

2. Vision of the Solution

<This section establishes a long-term vision for the system to be built to address the business objectives. This vision will provide the context for making decisions throughout the course of the product development life cycle. The vision should not include detailed functional requirements or project planning information.>

2.1. Vision Statement

<Write a concise vision statement that summarizes the purpose and intent of the new product and describes what the world will be like when it includes the product. The vision statement should reflect a balanced view that will satisfy the needs of diverse customers as well as those of the developing organization. It may be somewhat idealistic, but it should be grounded in the realities of existing or anticipated customer markets, enterprise architectures, organizational strategic directions, and cost and resource limitations.>

2.2. Major Features

<Include a numbered list of the major features of the new product, emphasizing those features that distinguish it from previous or competing products. Specific user requirements and functional requirements may be traced back to these features.>

2.3. Assumptions and Dependencies

<Record any assumptions that were made when conceiving the project and writing this vision and scope document. Note any major dependencies the project must rely upon for success, such as specific technologies, third-party vendors, development partners, or other business relationships.>

3. Scope and Limitations

This project primarily focuses on developing the back-end of the ABMBSI website for Barangay Magallanes business owners, as well as the business document management system to advertise and promote their business, widen their reach and engagement, increase the number of their members, and increase the number of businesses helped through their services along with the implementation of the few functionalities the customer has specified. The developers will help reduce the waiting time of customers for their needed documents, ease of manual labor, and digitized storage to raise the efficiency and effectiveness of the overall process. The project's duration will last from AY2022-2023 2nd year 3rd Term until AY2024-2025 4th Year 1st Term.

The developers will collaborate with the SOMA subteam of the ABMBSI Dream Team to ensure that the website will be developed in accordance with the best practices of web development. The developers will not be handling the marketing, website front-end portion, and business endeavors planning of the project. The business document management system will serve only the community and businesses within the Barangay Magallanes areas, namely: the Magallanes Village, Paseo de Magallanes, Galeria de Magallanes, and Ecology Village for the residential areas and Paseo de Magallanes Commercial Association, Chino Roces Estates Association, other stakeholders along Pasong Tamo Extension, and small and medium enterprises (SMEs) for the commercial areas.

Document procurement is still done personally. However, requests and information regarding the requirements are available online since knowing how much everything costs beforehand allows them to save time with the trips to the barangay hall as well as waiting in the barangay hall.

The business document management system is accessible via phone or PC but is open to being developed into a mobile app for future projects. So far, it is planned to be a browser-exclusive platform that will be developed and designed to be responsive and optimized for both PC and mobile viewing usage. Nonetheless, users with no online connection, either on mobile or PC, will

not be able to access the website. In terms of business registration and renewal, the business document management system will only help the user, assumed as a business owner for a business within Barangay Magallanes, track their needed documents for submission and help them see the percentage completion of their progress. Even so, the business document management system will only assist with document requests involved in business-related applications, such as business registration and business renewal. The developers will not be automating the registration and renewal of businesses on the Bureau of Internal Revenue (BIR) and Department of Trade and Industry (DTI) on behalf of the business owner.

3.1. Scope of Initial Release

<Describe the intended major features that will be included in the initial release of the product. Consider the benefits the product is intended to bring to the various customer communities, and generally describe the product features and quality characteristics that will enable it to provide those benefits. Avoid the temptation to include every possible feature that any potential customer category might conceivably want some day. Focus on those features and product characteristics that will provide the most value, at the most acceptable development cost, to the broadest community.>

The minimum viable product (MVP)

3.2. Scope of Subsequent Releases

<If a staged evolution of the product is envisioned over time, indicate which major features will be deferred to later releases.>

Subsequent releases will involve

3.3. Limitations and Exclusions

<Identify any product features or characteristics that a stakeholder might anticipate, but which are not planned to be included in the new product.>

4. Business Context

1. Major Customer Categories:

- **Barangay Officials and Personnel:** The primary users of BM-BDMS include Barangay Clearance Officers, administrative staff, and other officials involved in the processing and management of business-related documents. The system aims to enhance their workflow efficiency and data management capabilities.
- **Business Owners and Entrepreneurs:** Another significant customer category comprises individuals seeking permits, clearances, and other business-related documents from the Barangay Magallanes. The BM-BDMS aims to provide a user-friendly platform for streamlined application processes and efficient communication.

2. Assumptions:

- **Technology Adoption:** The project assumes a positive attitude toward technology adoption within the Barangay Magallanes community. It presupposes a willingness among users to transition from manual, paper-based processes to a digital document management system.
- **Stakeholder Collaboration:** Successful implementation assumes active collaboration and engagement from Barangay officials, IT support teams, and business owners. Regular feedback and communication are essential for refining the system based on evolving needs.

3. Management Priorities:

- **User Training and Support:** One of the key priorities is to ensure comprehensive user training and ongoing support to facilitate a smooth transition to the BM-BDMS. This includes training sessions for Barangay personnel and outreach programs to educate business owners about the benefits of the digital platform.
- **Data Security and Compliance:** Ensuring the highest standards of data security and compliance with local regulations is a management priority. The project places significant emphasis on implementing robust security measures to safeguard sensitive information and protect user privacy.
- **Efficiency Enhancement:** The project's core objective is to enhance the overall efficiency of business-related processes within Barangay Magallanes. This involves reducing processing times, minimizing errors, and providing a seamless experience for both applicants and Barangay personnel.
- **Stakeholder Engagement:** Management priorities include fostering positive relationships with stakeholders, addressing concerns, and actively involving them in the project's development and implementation phases. Regular communication channels will be established to keep all parties informed about progress and updates.
- **Scalability and Adaptability:** The project acknowledges the potential growth of business activities and evolving community needs. As a result, scalability and adaptability are management priorities, with a focus on designing a system that can accommodate future enhancements and changes.

4. Community Impact:

- The BM-BDMS is envisioned not only as a tool for efficiency but also as a means to contribute positively to the overall business environment in Barangay Magallanes. The project anticipates fostering economic growth, simplifying administrative processes, and creating a more business-friendly atmosphere within the community.

By understanding the major customer categories, making clear assumptions, and outlining management priorities, the business context for the BM-BDMS project provides a comprehensive framework for successful development, implementation, and ongoing improvement. It aligns the project's goals with the needs and expectations of the community and ensures a holistic approach to business document management.

4.1. Stakeholder Profiles

<Stakeholders are individuals, groups, or organizations that are actively involved in a project, are affected by its outcome, or can influence its outcome. The stakeholder profiles identify the customers for this product and other stakeholders, and states their major interests in the product. Characterize business-level customers, target market segments, and different user classes, to reduce the likelihood of unexpected requirements surfacing later that cannot be accommodated because of schedule or scope constraints. For each stakeholder category, the profile includes the major value or benefits they will receive from the product, their likely attitudes toward the product, major features and characteristics of interest, and any known constraints that must be accommodated. Examples of stakeholder value include:

- *improved productivity*
- *reduced rework*
- *cost savings*
- *streamlined business processes*
- *automation of previously manual tasks*
- *ability to perform entirely new tasks or functions*
- *conformance to current standards or regulations*
- *improved usability or reduced frustration level compared to current applications*

Example:>

Stakeholder	Major Value	Attitudes	Major Interests	Constraints
<i>executives</i>	<i>increased revenue</i>	<i>see product as avenue to 25% increase in market share</i>	<i>richer feature set than competitors; time to market</i>	<i>maximum budget = \$1.4M</i>
<i>editors</i>	<i>fewer errors in work</i>	<i>highly receptive, but expect high usability</i>	<i>automatic error correction; ease of use; high reliability</i>	<i>must run on low-end workstations</i>
<i>legal aides</i>	<i>quick access to data</i>	<i>resistant unless product is keystroke-compatible with current system</i>	<i>ability to handle much larger database than current system; easy to learn</i>	<i>no budget for retraining</i>

4.2. Project Priorities

<Describe the priorities among the project's requirements, schedule, and budget. The table below may be helpful in identifying the parameters around the project's key drivers (top priority objectives), constraints to work within, and dimensions that can be balanced against each other to achieve the drivers within the known constraints. For more information, see chapter 2 of *Creating a Software Engineering Culture* by Karl E. Wiegers (Dorset House, 1996). Examples:>

Dimension	Driver (state objective)	Constraint (state limits)	Degree of Freedom (state allowable range)
Schedule	release 1.0 to be available by 10/1, release 1.1 by 12/1		
Features			70-80% of high priority features must be included in release 1.0
Quality			90-95% of user acceptance tests must pass for release 1.0, 95-98% for release 1.1
Staff		maximum team size is 6 developers + 4 testers	
Cost			budget overrun up to 15% acceptable without executive review

4.3. Operating Environment

The BMBDMS is designed to operate in a dynamic environment that caters to the needs of businesses within the Barangay Magallanes community. The following factors define the operating environment and influence the system's architecture:

1. Geographical Distribution of Users:

- *Description:* Users of the BMBDMS are generally located within or in close proximity to the same Philippine time zone. While they may not all be residents of Barangay Magallanes, they share a common geographical region.
- *Influence:* The geographic proximity allows for a cohesive user community and facilitates real-time collaboration and communication. Time zone alignment minimizes potential challenges related to coordinating activities, communication, and system usage among users, ensuring a synchronous operational experience as well.

2. Online Accessibility:

- *Description:* Users have the ability to access the BMBDMS online through the proposed solution. This online accessibility ensures that users can utilize the system from various locations, providing flexibility in terms of where and when they access the platform.
- *Influence:* The online accessibility feature contributes to the system's usability and convenience, allowing users to interact with the platform at their preferred time and location.

3. Data Generation and Usage Locations:

- *Description:* Data for the BMBDMS is generated and used within the Barangay Magallanes community. The locations where data is generated and used are relatively close, ensuring efficient data processing and retrieval.
- *Influence:* Proximity between data generation and usage locations contributes to faster data transactions and supports the system's efficiency objectives.

4. Maximum Response Times:

- *Description:* Specific maximum response times for accessing data, particularly when stored remotely, are yet to be explicitly defined.
- *Influence:* Establishing maximum response times for remote data access will be crucial for optimizing system performance, especially when dealing with larger datasets or during peak

usage periods.

5. Service Interruption Tolerance:

- *Description:* Continuous access to the system is critical for the efficient operation of business-related services in Barangay Magallanes. Users rely on the BMBDMS for various activities related to permits, clearances, and document processing.
- *Influence:* Minimizing service interruptions is a key priority to ensure the smooth operation of business activities. The system must be designed with redundancy and failover mechanisms to mitigate potential disruptions.

6. Access Security Controls and Data Protection:

- *Description:* The BMBDMS will implement robust access security controls and data protection measures to safeguard sensitive information. These controls will ensure that only authorized personnel have access to specific data and transactions.
- *Influence:* Data security and protection are paramount considerations, given the confidential nature of the information being processed. Compliance with data protection regulations will be rigorously adhered to, and regular security audits will be conducted to maintain the integrity of the system.

In summary, the operating environment of the BM-DMS is characterized by a closely-knit business client community within the same time zone, online accessibility, critical continuous access requirements, and a commitment to robust access security and data protection. These factors will guide the development of the system's architecture to ensure it meets the specific needs and expectations of the Barangay Magallanes community.