SECTION 6 - RECOMMENDATIONS

6.1 Business Process Recommendations

Process Oriented Computer Information System

The main recommendation is to design and implement a Process-Oriented Computer Information System to replace the current Task-Oriented System. The table below lists the top 5 major differences between the systems:

New Process-Oriented System	Current Task-Oriented System
Supported measuring of performance and accountability. The new system will record the life of the project and gather information about the responsiveness and quality of services for activities of the entire process. Measures, both good and bad, will be captured for use in reports, Performance Evaluations, and process analysis.	**Lack of accountability.** Some groups of users keep selected records, but there is no common accountability system that tracks the performance based on the goals of the whole process rather then narrow tasks. This does not lend itself to the tracking of processes or employee Performance Measures.
Supported integration from beginning to end. The system will monitor activities from the initial customer request to the final approval or rejection of the request. Implementation of a shared common database will result in a single integrated system, no duplicate entries, real time viewing, and trust based system with reliable facts.	**Lack of integration**. The current system only supports select tasks of individual functional Departments, which results in isolated and fragmented data. Additionally, staff cannot always view critical comments or actions taken by other groups. This generates an environment with multiple databases storing redundant and incomplete information, and results in numerous miscommunications.
Reduced cycle-times. The system will utilize automatic tracking and routing to enable viewing of the status of any Agenda Item at any time and ensure that documents pass through the appropriate channels. These tools will effectively decrease turn-around time and keep staff informed.	**Long cycle-times.** Due to the lack of an overall tracking system, an inordinate number of in-person communication and phone calls are necessary to check the status of an item. Use of paper instead of digital documents adds to the difficulty of physically locating needed information, which prolongs turn-around times.
Efficient, productive training efforts. A system designed for users, by users, will be intuitive and logical, and greatly reduce training time. Employees and customers will benefit from a unified and user-friendly web-based interface.	**Time intensive, unsuccessful training efforts.** The current systems have few standards, require high energy ad-hoc training, and involve tricky procedures to do some tasks. They utilize unfriendly and non-

	standard user interfaces.
Business-oriented maintenance and scalability. In the new process-oriented system, simplicity, increased connectivity and non-proprietary solutions will be a priority. This will enable changes to the user interface or software modules to be initiated and driven by business requirements, with a focus on improving customer satisfaction and adding value.	**Disproportionate maintenance and scalability.** System performance upgrades are expensive, slow, and driven by technical limitations. The current task-oriented system employs fragmented, incongruent databases and interfaces, and utilizes proprietary technology. This makes it very complex and expensive to adapt to new customer and business requirements.

Improving Results

The block diagram below explains the role of the new **Agenda Process-Oriented Information System.** The customers are only interested in results. The new **Agenda Process-Oriented Information System** will be designed to better support customers and to improve the current results, providing beginning-to-end integration of all the activities of the agenda.

Customers
Results
Agenda Process-Oriented Information System

The results that can be improved are summarized in the table below and are explained with detail in Section 4 of this report.

Results	Improvement Opportunity
Reliability Describes the performance of the Agenda Process in delivering the service to the correct place, within the required time frame, in the condition required, with the necessary documentation, to the assigned Department.	15%
Responsiveness Describes how quickly the Agenda Process provides the services to the correct customers.	13%
Flexibility Describes the ability of the Agenda Process to respond to customer changes.	10%
Cost Describes the cost associated with operating the Agenda Process in terms of man-hours. An Agenda Item takes approximately 5 weeks to go through Phases I and II of the Agenda Process. An average of 21 items per BCC meeting are taken to the Public Hearing, with an average of 48 man-hours required to prepare a single Agenda Package. By using the new system, the Planning & Development Department would realize a 35% savings in man-hours on each Agenda Package (17 man-hours per item or 357 man-hours per meeting).	35%
Profitability Describes the effectiveness of the Agenda Process in managing assets to support demand satisfaction.	5%

New Agenda Process Flow Chart

The new agenda process Flow Chart Diagram illustrates the sequence and timelines from the beginning to end integration of all the activities of the agenda. The new system will be able to reduce 35% of the man-hours spent per agenda Item, thereby reducing costs and improving accountability, reliability, and flexibility in the agenda process.

Figure 6.1 New Agenda Process Phases I and II

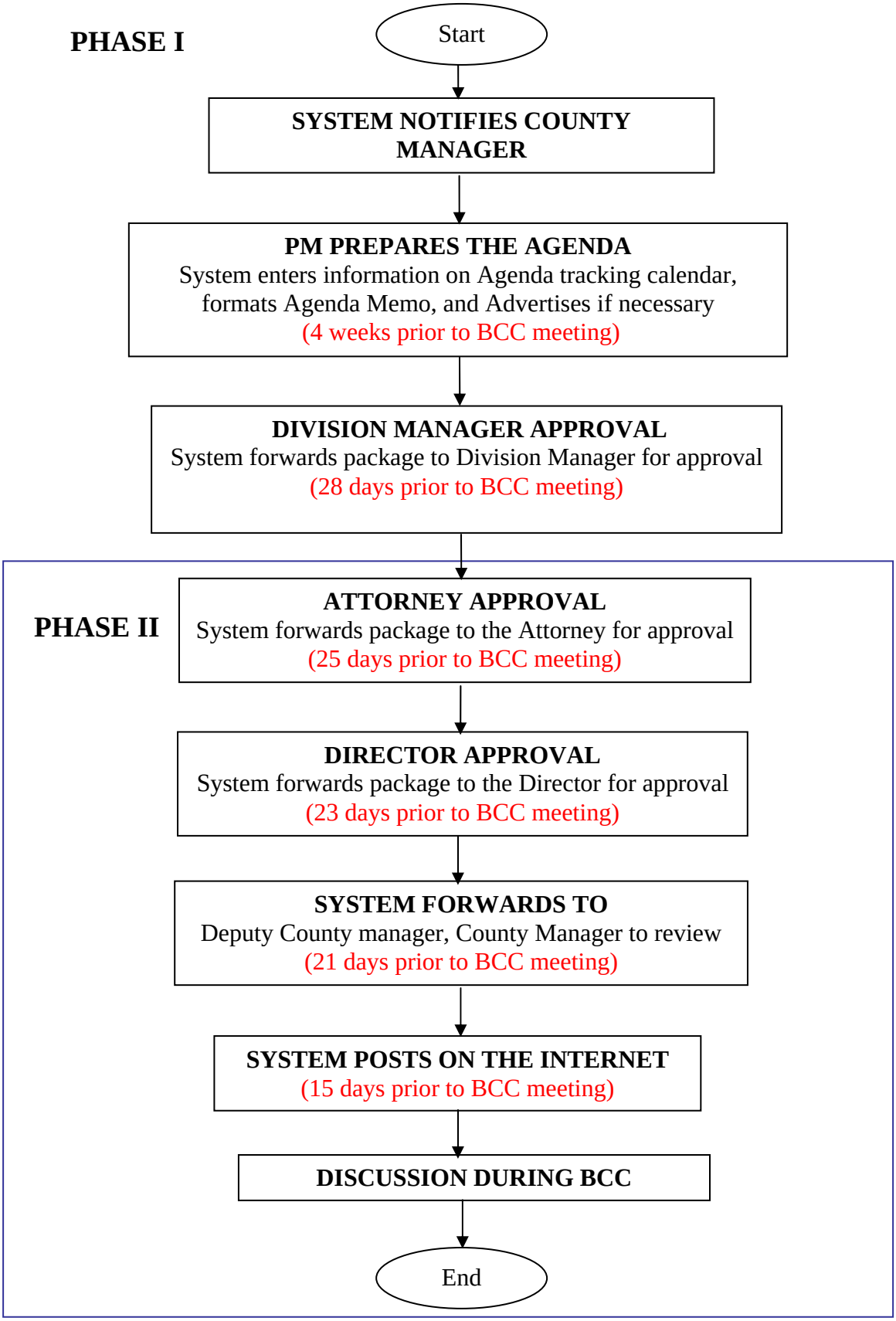
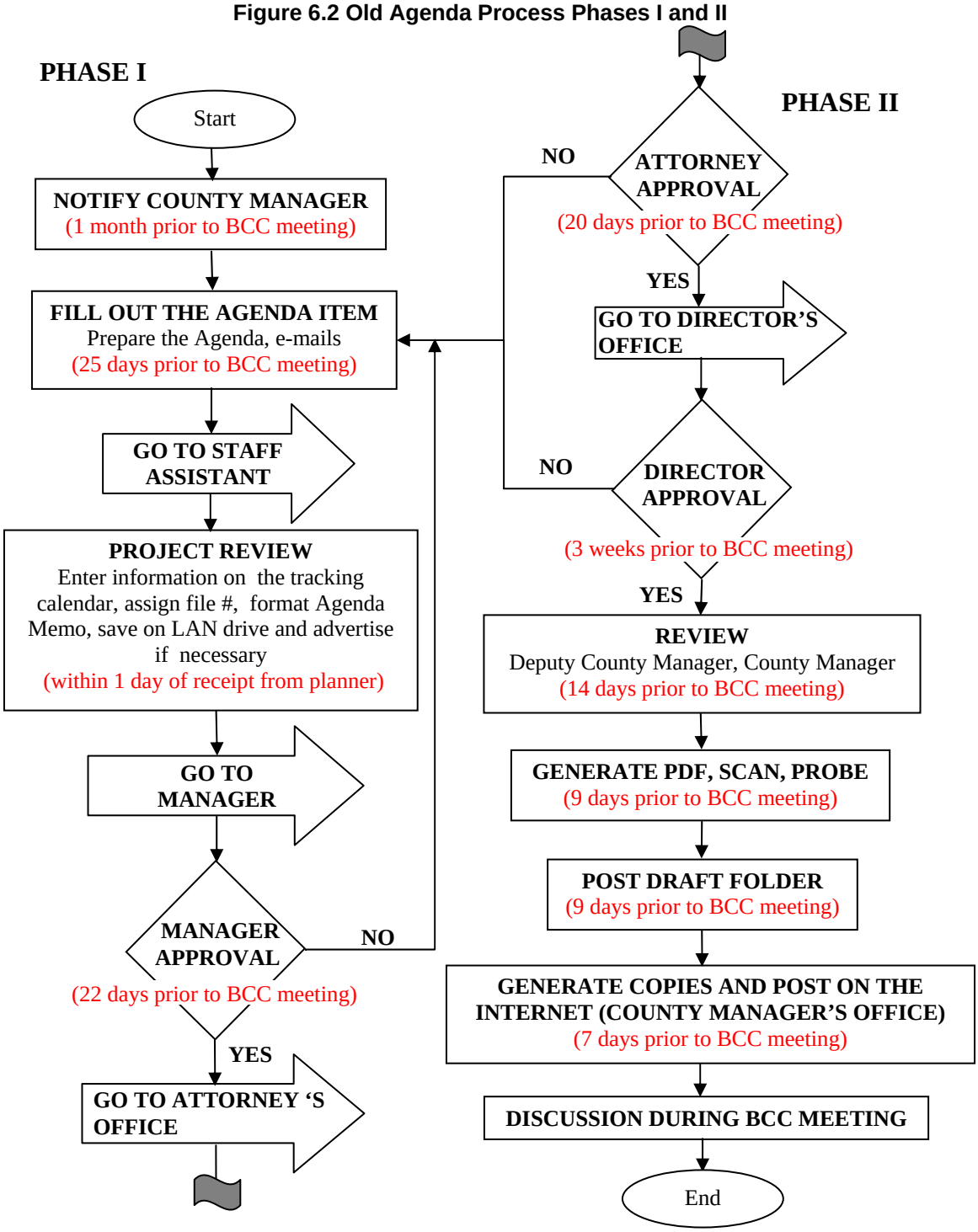


Figure 6.2 Old Agenda Process Phases I and II



6.2 Technical Recommendations

Internet Development Framework

In order to have an **Agenda Process-Oriented Information System** it is necessary to select an Internet Development Framework that provides a unified environment where the different software modules can be integrated. The table below compares the two current Internet framework options (based on our experience with various information systems projects and the benchmark studies available):

.NET Framework	Java/Web Sphere Framework
Development Cycle Provides a robust object framework allowing the development team to focus on the core business logic. Microsoft languages and development environment (Visual Studio .NET) and support (MSDN) provide a simplified learning curve allowing developers to become productive quickly.	**Development Cycle** Requires development of many modules to support the application. A complex development environment and support for only one language (Java) requires more training and a steeper learning curve.
Cost Estimated cost to deploy a web services framework on a four server cluster is **$24,000.**	**Cost** Estimated cost to deploy a web services framework on a four server cluster is **$384,000.**
Integration Easy integration with desktop applications such as MS Office, Outlook, OnBase, Access, Internet Explorer and other applications.	**Integration** Does not provide easy integration with commonly used desktop applications.
Security Both approaches provide standards-based security features.	
Performance Both approaches provide a scalable high performance capability.	

The table clearly shows why we recommend the .NET framework as the best option to achieve the top 5 features of the new Agenda Process-Oriented Information System. The reasons are summarized below:

- **Supports measuring of performance and accountability.**
- **Supports integration from beginning-to-end.**
-

- **Reduces cycle-time.**
- **Efficient and productive training efforts.**
- **Business-oriented maintenance and scalability.**

System Architecture

The new **Agenda Process-Oriented Information System** should be designed to satisfy the 29 expectations and corresponding use cases thus far identified by the **Agenda Process Expectation Group.** Below is the list of modules recommended for design and implementation in order to meet the identified expectations. For detailed information about the expectations and use cases, please refer to Section 5.

6.3 Conclusion

In conclusion, our recommendations based on the business and technical evaluation can be summarized with the following list:

- Design and implement a process-oriented system to replace the current task-oriented system. The new system should support, from beginning to end, all the activities in the new Agenda work flow process.

- The new system will help to improve the results to the customers regarding reliability (by 15%), responsiveness (by 13%), flexibility (by 10%), cost (by 35%), and profitability (by 5%).

- The new agenda process-oriented information system should be based on .NET Internet Development Framework because it will enable faster development cycles, less cost, and easy integration with new and existing applications.

- The architecture of the system should be designed to satisfy the 29 expectations identified by the Agenda Process Expectation Group. The system architecture will help to achieve the top 5 features of the new Agenda Process-Oriented Information

System in the following ways:

- Measures performance and accountability.
- Supports integration from beginning-to-end.
- Reduces cycle-times.
- Efficient, productive training efforts.
- Business-oriented maintenance and scalability.