## SECTION 3 - METHODOLOGY

### 3.1. Business Process Evaluation Methodology

***Interviews***

Interviews were needed in order to examine Seminole County's Planning & Development Department (P&D) from a process perspective. In P&D we interviewed employees who have experienced the power of process improvement and understand the key roles in process management. In addition to staff interviews, we reviewed any existing documentation of the process. We developed flowcharts to document information from interviews including time-for-steps and information flow. Simultaneously, we reviewed documentation with those interviewed and obtained feedback.

| Business Unit | % Complete | # Interviews | # Processes |
|---|---|---|---|
| Agenda | 100 | 12 (multiple) | 7 |

***SCOR Evaluation Criteria***

The evaluation criteria are supported by the Supply Chain Operation References Model (SCOR) and are based on five principals of performance: Reliability, Responsiveness, Flexibility, Cost, and Profitability. These principals are weighted according to the relevance that each principal criteria has through the behavior of the system. The total weight of the system is 100%.

In addition, each principal criteria has its own standard explained through questions which are weighted and scored between 0-100 percent according to the evaluator. The principal criteria are evaluated according to the definitions below.

- **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.
- **Responsiveness**: Describes how quickly the Agenda Process provides the services to the correct customers.

- **Flexibility**: Describes the ability of the Agenda Process to respond to customer changes.

- **Cost**: Describes the cost associated with operating the Agenda Process in terms of man-hours.

- **Profitability**: Describes the effectiveness of the Agenda Process in managing assets to support demand satisfaction.

### 3.2 Technical Evaluation Methodology

The purpose of the technical evaluation criteria and weighting is to assist in the evaluation of software development methodologies (SDM) for use in meeting the objectives of the SCI.NET project. The SDM is the utilization of various programming languages, techniques, and products in various combinations. Some SDM may employ multiple vendors; in this case, vendor scores for the highest scoring vendor should be utilized.

In order to facilitate the best choice for the project, it is essential to follow an objective methodology, which allows quantification of the capabilities and features of each system or alternative. The SDM measures critical components of the software solution. The components are as follows:

**Usability and Integration**: The system should be effective, efficient, and satisfy the user by providing the best way to solve tasks and problems for a particular situation. High usability means that the system is easy to learn and remember. The system should be user friendly for everyone, especially those who are unfamiliar with the Internet, programming, or other concepts related to computing.

**Scalability and Maintainability**: The system will be tested through the control system design for this purpose. Any technical problems will be controlled to keep intact the entire system configuration in order to not have any faults, and to preserve and retain the functionality of the system when any problems develop.

**Development Cycle**: The system must be able to adapt and change in order to meet the user's needs. The documentation and examples are essential for the system to be properly adapted to the business environment.

**Security and Reliability**: The system will be reliable to all users and easy to access. Users will be able to trust the system, knowing that it can be used at any time. The system must provide different levels of security for approving or denying each change on the agenda. The system must track all operations and users performing these operations, according to their level of responsibility.

**Solution Provider**: The vendor must be evaluated to ensure experience and expertise when assisting the client.

Proposed software methodologies for the immediate SCI.NET development effort have these alternatives:

1. Continue with existing hardware and software. No change made.
2. Use the OnBase agenda management software.
3. Custom design using ASP.NET
4. Use WebSphere recently purchased by IT.

Each of these alternatives was evaluated, where each critical component and the criteria that make up the components are weighted and scored. In other words, to get the total punctuation of the system, each component is measured according to the importance (relative weight) it has in the overall performance of the software solution. In addition, each component is divided into criteria and each criterion is measured according to the importance that it has in the overall performance of the system component. The sum of the percentile weight assigned to each criterion must be equal to 100%. In the same way, a numerical score is given by the evaluator to each criterion according to the following range:

Fully meets criteria = 10 points
Does not meet criteria = 0 points

Next, the overall score is calculated by multiplying weight by score and summing for each component (table), with the result multiplied by the component's percentile overall weight (%) to get the punctuation of the system's component. Finally the punctuation obtained by the usability, scalability, development cycle, security, and solution provider are summed to get the total punctuation of the evaluated system.

The initial evaluation of the current system put in evidence the need for documentation of the current HTE modules and the libraries used at Seminole County as part of the task to be done during the technical evaluation of the current systems.