



■ ■ ■ ■ A Report for
State of Tennessee



A Bright Idea for State Government

ERP Post Implementation Assessment

July 2009

Gartner

Table of Contents

Executive Summary	1
1.0 Introduction	5
1.1 Background	5
1.2 Project Scope and Objectives	6
1.3 Approach	7
1.4 Assessment Framework	7
1.4.1 Critical Program Management Framework (CPM)	7
2.0 FSCM Wave 3 Go-Live Analysis.....	9
2.1 Areas Assessed.....	9
2.1.1 Organizational Change Management.....	9
2.1.2 End user training	10
2.1.3 User Acceptance testing (UAT).....	11
2.1.4 Agency Reporting and Analysis	11
2.1.5 Agency Readiness	12
2.1.6 Edison Support Readiness.....	12
2.1.7 Contingency Planning	13
2.1.8 Business Value Realization.....	14
2.2 Alternatives Analysis	15
2.3 Summary Recommendation for Wave 3 Implementation	17
3.0 FSCM Functionality and Usability	19
3.1 Areas Assessed.....	19
3.1.1 Adequacy of Internal Controls	19
3.1.2 Timeliness of Vendor Payments.....	20
3.1.3 Ability to "Draw Down" Federal Funds Fully and Correctly.....	21
3.1.4 System Usability.....	21
4.0 Human Capital Management (HCM).....	23
4.1 Areas Assessed.....	23
4.1.1 Help Desk.....	23
4.1.2 End User Training	24
4.1.3 Human Resources Staff Training Content and Delivery.....	25
4.1.4 System Usability.....	26
4.1.5 Accuracy and timeliness of transactions	27
5.0 Comparing Project Edison to Similar Projects.....	29
5.1 Comparison Summary.....	29
5.2 Key Lessons Learned from Connecticut and New Mexico	31

5.2.1 State of Connecticut 31

5.2.2 State of New Mexico 32

5.3 Recommendations..... 39

6.0 Strategic Recommendations..... 40

Appendix A: CPM Framework Details 41

Appendix B: Data Gathering Sources 60

Executive Summary

Introduction

This report provides the results of Gartner's independent assessment of the State of Tennessee's current Enterprise Resource Planning (ERP) implementation known as the "Edison Project". This report also includes a comparison of Gartner's findings with lessons learned from similar statewide ERP implementation projects.

Background

The Edison Project implementation is replacing 30 statewide legacy technology systems and approximately 85 agency applications. A project of this size and complexity represents a tremendous amount of cultural and business process change in a short amount of time.

Edison's functionality is grouped under two major functional categories:

- Financial and Supply Chain Management (FSCM), which encompasses
 - 24 Unique Functional Modules
 - Over 5,500 functional requirements
 - Approximately 300 business processes
- Human Capital Management (HCM), which encompasses
 - 8 Unique Functional Modules
 - Over 2,500 functional requirements
 - Approximately 100 business processes

Key Findings

The issues and challenges faced by the Edison Project are similar to the experience of other statewide ERP implementations and large technology projects in general. The Edison challenges are generally not technology related, but rather rooted in organizational change management and business process adoption at the agency user level.

The issues experienced by Tennessee, while similar in nature to the experience of other states, were exacerbated by insufficient attention to agency expectations, incomplete user acceptance testing, limited business process training and unstructured stakeholder communications throughout implementation.

While the Edison project is currently mitigating many of the business process issues that have manifested during the implementation, substantial risk remains to achieving the business benefits envisioned in the original business case, unless the State agencies, in partnership with Finance and Administration (F&A), assume a level of accountability for the on-going use and continuous improvement of the state-wide system. Edison's mandate for the future is to establish accountability and communicate expectations for the realization of these benefits with clear roles and responsibilities established for statewide leadership, individual agencies and the Edison team.

Risk Assessment

Gartner completed a risk assessment of the Edison project using the Critical Program Management (CPM) framework which compares 21 specific categories with commonly accepted industry best practices for ERP implementations and operations.

To provide a solid factual basis for its findings, Gartner performed a broad review of existing documentation, conducted extensive interviews with agency stakeholders and Edison Project team members, and attended readiness workshops where project stakeholders discussed their key issues. Gartner produced findings across all 21 areas of its CPM framework, and provided recommendations for improvement where applicable.

The major findings resulting from this assessment relate to five key areas:

- Internal Controls
- Organizational Change Management
- End User Training
- Agency Readiness
- Business Value Realization

Internal Controls

Issue description: Gartner assessed the initial requirements for internal controls, the configuration during implementation and the on-going monitoring and monitoring based on industry best practices for financial system implementations.

Gartner Finding: Gartner determined that the configuration, application and on-going monitoring of internal controls is appropriate and the risk to the State of Tennessee is minimal.

Organizational Change Management

Issue Description: Large-scale technology deployments typically include significant process changes which require considerable new learning by end users. Organizations can embrace these changes and challenges if the new system benefits are well understood and the path to success is well defined. If no socialization effort is made to market these new benefits or explain the success path, there is a high-risk that users develop a stiffened resistance to the new system.

Gartner Finding: The Edison Project has lacked a well-defined and broadly socialized platform for change. Gartner found several cases where agency senior management did not explain to their user base why the new systems were needed and what organizational benefits would be delivered. In addition, Gartner's assessment determined that the appropriate climate for change had neither been well articulated and established at the outset nor continuously reinforced through the lifecycle of the implementation.

End User Training

Issue Description: End users develop comfortable patterns of interaction through long-time familiarity with their legacy systems. Even though new systems may have intuitive interfaces, improved functionality, and simpler processes, end users must be formally trained to witness the new step-by-step interactions their work tasks will require.

Gartner Finding: Step-by-step training on how to conduct regular business processes was not part of the formal training program scope. Instead, the training program primarily focused on generic system navigation and general functionality. Although Edison procedural manuals were created, their details were not adapted for the transactions specific to each individual

agency. End users deemed these manuals to be unsatisfactory since they lacked this detail. Without confidently trained end users, the new system has naturally been interpreted as different and difficult. End users have struggled to map their old behavioral patterns to the new system, and organizational efficiency has eroded.

Agency Readiness

Issue Description: Before cutting-over to a new technology system, the user community must be fully equipped with both the knowledge and desire to conduct their existing normal business processes using the new system.

Gartner Finding: The user communities lacked the requisite training, rigorous preparation, and organizational attitude to conduct their day-to-day transactions using the new system. Their new systems were not subjected to rigorous and methodical validation exercises. This lack of preparedness was not identified prior to cut-over in many cases. User requirements for Wave 1 and 2 agencies are reportedly still being defined in post-implementation workshops. New issues continue to surface long after cut-over dates.

Business Value Realization

Issue Description: Investments in new technology systems are made with supporting assumptions and calculations that estimate the future business value to exceed system cost. The actual accrual of business value should be tracked and reported through a formal program of Value Delivery Assurance. This enduring program should motivate a continual drive to fully leverage the new system capabilities and realize the planned return on investment.

Gartner Finding: A formal Business Value Delivery Assurance program has not yet been created. End users currently report a significant loss of productivity in day-to-day task execution due to poor business process implementation and inadequate training. Without a formal and effective Business Value Delivery Assurance program in place, the key motivating force to drive full Edison leverage will be missing. Without this enduring focus, it will become increasingly more difficult to measure business benefits and trace them back to the original business case.

Recommendations

Gartner makes the following recommendations for the State of Tennessee moving forward:

1. Develop an open and transparent communication process to ensure that the expectations are properly established and that all project-related information is disseminated and shared with agency personnel and management on a regular basis. Address the accountability confusions between the agencies and Edison program roles and responsibilities, while assuring clear communications. Increase agency representation at the Steering Committee level as planned. Leverage the implementation governance structure when developing post-implementation support and governance mechanisms and expect the model to evolve over time.
2. Implement FSCM for the remaining agencies as they complete their readiness preparations. Ensure that the recommended cut-over checklist is completed for each agency prior to go-live and obtain agency sign-off on all of the best practice criteria to ensure their buy-in and accountability.
3. Develop and deliver extended training on specific modules and business processes for all agencies to ensure that users are prepared to use the system on a day-to-day basis.
4. Implement the strategy for on-going post implementation governance and support. Design and implement a support organization and capability consistent with the evolving strategy.

5. Review and restate the project and business objectives to ensure consistent messaging across the State regarding the rationale for moving to the new system; reinforce key benefits and set realistic expectations with the user community and the project team members to keep sustaining change. It is highly recommended that the State of Tennessee institutionalize a formal and continuous learning program to enhance the competencies of the project team, end users, and project resources.
6. Assign accountability for the future realization of business benefits with clear roles and responsibilities established for statewide and agency leadership.

Conclusion

As the remaining FSCM agencies are converted into production, there is an opportunity to implement the Edison team's long range vision and strategy for the on-going support and enhancement of the Edison system, and engender its widespread usage and adoption. The State of Tennessee Edison Project must successfully transition its current focus on implementation to a new role that provides robust on-going support for end users and evangelizes the leveraging of new system capabilities.

1.0 Introduction

Gartner was engaged by the State of Tennessee to perform an independent assessment of the State of Tennessee's statewide ERP (Enterprise Resource Planning) implementation (Edison Project). This report includes Gartner's assessment and recommendations for:

- Usability and functionality of the system
- Future Wave 3 agency deployments of the Financials and Supply Chain Management (FSCM) software
- Post implementation support for Human Capital Management (HCM) software

The report is organized according to the following sections:

Section 1 - Explains the Gartner approach to complete the assessment

Section 2 - Provides an assessment and recommendations for the original scheduled deployment of Wave 3 agency FSCM deployments

Section 3 - Reviews the functionality and usability of the FSCM modules

Section 4 - Reviews the HCM modules and assesses the post-implementation support capability of the Edison project

Section 5 – Provides a comparative analysis of the Edison Project to similar statewide ERP implementations

Section 6 – Provides a consolidated set of high-level, strategic recommendations

1.1 Background

ERP software applications provide integrated management of core functions such as finance and accounting, human resources, procurement, etc. ERP core functionality is generally consistent with the State's defined needs and business objectives, which have historically been served by manual processes or disparate technology systems. The State of Tennessee initiated the ERP Edison Project in 2005 to meet the following objectives:

- Provide comprehensive accounting, purchasing, logistics, budget, and human resource functionality to improve the efficiency and effectiveness of administrative processes.
- Provide activity-based costing and performance budget functionality to meet legislative mandates.
- Implement secure self-service web-enabled solutions whereby employees, retirees, and fiduciaries have direct access to necessary personnel, payroll, benefit, and retirement information.
- Enhance the quality and accessibility of information available to State officials and employees.
- Eliminate redundant data and administrative systems across State agencies.
- Employ electronic procurement to interact efficiently with business partners and reduce or eliminate paper documentation.
- Build a framework to enhance the public's access to information.

To achieve these objectives, the State of Tennessee conducted a competitive procurement process and selected PeopleSoft as the statewide ERP application and Maximus as the implementation vendor. The Human Capital Management (HCM) components (Payroll, Human Resources, Benefits, Time and Labor) were implemented for all agencies in October 2008. Three separate “waves” were scheduled for the deployment of PeopleSoft FSCM components. Wave 1 was implemented on January 1, 2009, Wave 2 on April 1, 2009 and Wave 3 was scheduled to deploy on July 1, 2009.

The extensive scope and scale of the Edison Project has introduced a high degree of change in a relatively short period of time. The HCM implementation included 8 modules, addressing more than 2500 functional requirements and 100 business processes. The FSCM implementation encompasses 24 modules, more than 5500 functional requirements and 300 business processes. The Edison Project is replacing 30 statewide legacy systems and approximately 85 agency applications.

Concurrent with the extensive scope described above, the Edison Project also introduced manager and employee self-service (ESS) functionality and time entry for approximately 48,000 users, including new workflow and approvals that required significant changes to existing business processes.

The above complexities resulted in some users within the State expressing dissatisfaction with the implementation and expected performance benefits. In order to address these concerns, the State engaged Gartner to provide an independent objective assessment that would address specific questions related to the Edison Project. Gartner assessed Edison’s project practices and outcomes based on generally accepted industry best practices and in comparison to other statewide implementations of similar scope and complexity.

1.2 Project Scope and Objectives

Under the general scope described above, Gartner was asked to address the following areas related to FSCM and HCM:

Financial and Supply Chain Management Modules:

1. Document the risks of the existing Wave 3 deployment schedule versus a delayed schedule. Key criteria for this analysis included the readiness of Edison’s support staff to support end users and agency business staff readiness to perform their job duties using the new system.
2. Evaluate the functionality of specific modules as currently implemented, including the adequacy of internal controls, timeliness of vendor payments, and the ability to "draw down" federal funds fully and correctly.
3. Identify issues and recommend improvements for post-implementation support, including potential training and system usability improvements.

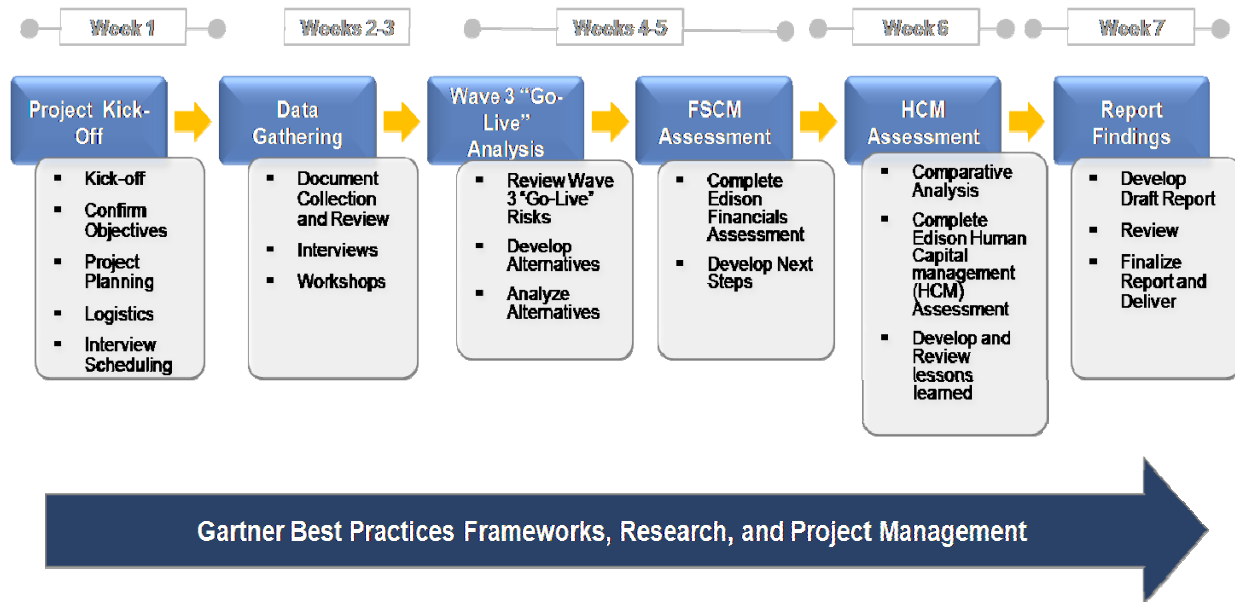
Human Capital Management Modules:

1. Perform an analysis of Tennessee's implementation in comparison to similar implementations and organizations with comparable characteristics.
2. Identify post implementation support issues and recommend opportunities for improvement in the areas of help desk, end user training and usability.

1.3 Approach

Gartner's Critical Program Management (CPM) framework was used to conduct the assessment within the context of best practices (see Section 1.4). The figure below illustrates the key steps in Gartner's project approach.

Figure 1. Gartner Approach



In order to gain the broadest possible perspective and produce factually based conclusions, the Gartner project team performed a broad review of existing documentation and conducted extensive interviews with agency stakeholders and Edison Project team members. In addition, Gartner attended functional and enterprise readiness workshops to assess the effectiveness of the current deployment activities and planning processes (see Appendix B for a list of data sources and stakeholder interviews).

Shortly following the start of the Gartner project in June 2009, the State faced a critical decision on Wave 3 implementation. This decision centered on whether to proceed with Wave 3 per the current project schedule or to delay/phase the remaining agency deployments. In order to inform the State's decision making process, Gartner performed an expedited analysis of the decision factors and provided a recommendation.

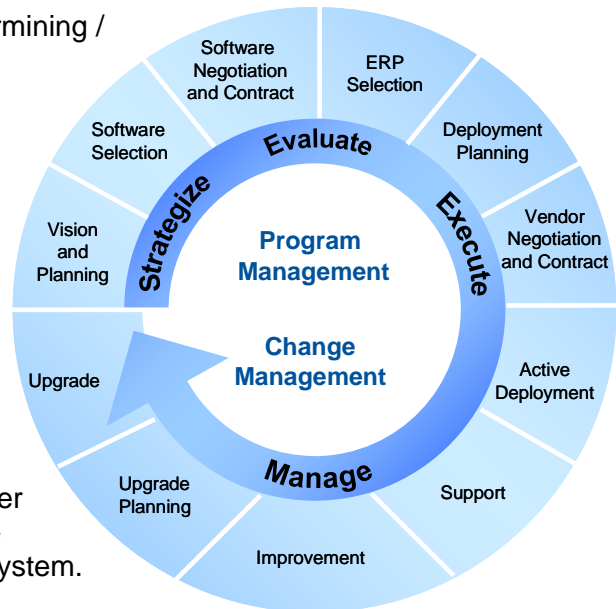
1.4 Assessment Framework

Gartner's core assessment criteria were based on our Critical Program Management (CPM) framework. Where applicable, Gartner also based its findings and recommendations on industry approved and accepted practices from the Capability Maturity Model Index (CMMI) and Software Development Lifecycle (SDLC) body of best practice knowledge.

1.4.1 Critical Program Management Framework (CPM)

Gartner's CPM framework provides a structured and comprehensive set of evaluation criteria to assess implementation performance in comparison to industry best practices. Gartner's data gathering, analyses and recommendations were structured within the CPM framework, which includes a lifecycle view of technology initiatives as outlined below:

- **Strategy** – The activities related to determining / defining the overall program objectives, direction, goals, etc.
- **Planning** – The detailed planning activities that can only be performed after the basic strategy is defined and should be completed at a high level before any of the project execution activities are performed.
- **Execution** – The tasks required to implement the system.
- **Management** – The tasks performed after the system is implemented as part of the ongoing operation and evolution of the system.



Each of these lifecycle categories defines several attributes for analysis. Appendix A includes detailed findings and recommendations for each selected subcategory annotated in Figure 2 below.

Figure 2. Assessment Categories

Evaluation Category	Selected	Evaluation Category	Selected
1. Strategy		3.4 Business Processes	X
1.1 Project Prioritization		3.5 Reporting and Queries	X
1.2 Benefit Specification		3.6 Functionality	X
1.3 Business Measurement		3.7 Value Management	
1.4 Estimation Quality		3.8 Operational Cost Planning / Management	
1.5 Scope Management		3.9 Organizational Change Management/ Agency Readiness	X
1.6 Project / Program Strategy	X	3.10 System Specification / Design and Usability	X
2. Planning		3.11 Customization / Development	
2.1 Program Management		3.12 Unit Testing	
2.2 Project Planning		3.13 Functional / System Testing	X
2.3 Budget Risk		3.14 Integration Testing	X
2.4 Risk Management Process	X	3.15 Performance Testing	X
2.5 Supplier Management		3.16 User Testing	X
2.6 Contract Administration		3.17 Data Conversion Execution	
2.7 Overall Testing		3.18 Conversion Execution (Data Center)	
2.8 Data Conversion Planning and Resources		3.19 Rollout / Deployment (End Users)	X
2.9 System Rollout	X	3.20 Vendor Operational Support	
2.10 Contingency Planning	X	3.21 User Training	X
2.11 Operations Management	X	4. Manage	X
2.12 Communication Planning		4.1 Project End-Phase – Project Governance / Maintenance	X
3. Execute		4.2 IT Operations Support	X
3.1 Resource Management		4.3 Operations Resources	X
3.2 Budget Management		4.4 Operational Scope Management	X
3.3 Time Management		4.5 Business Value Management	X

2.0 FSCM Wave 3 Go-Live Analysis

This section addresses the findings and recommendations associated with the Wave 3 Go-Live as scheduled for July 1, 2009. Some concerns had been raised about the planned cut-over of Wave 3, and, consequently Gartner was asked to assess the risks associated with the schedule compared to the risks of not proceeding as planned. This preliminary assessment and briefing was presented to the Commissioner of Finance and Administration on June 18, 2009.

While original plans exhibited an aggressive roll-out schedule due to the number of modules and agencies, the current program strategy and project re-planning efforts demonstrate a revised understanding. The Edison team has taken steps to offset the risks presented by the former plan, including a phased roll-out, better agency readiness and participation, and additional training for end users.

A key observation of the evaluation team is that the Edison team has already begun to address and improve many of the issues and processes which had contributed to this concern. This level of communication and attention have had a positive effect on the agencies and have resulted in a more rigorous process for ensuring agency readiness and minimizing the risk of “go-live” for the remaining Wave 3 agencies. The current risk management processes appear to mitigate cost, scope and schedule risks sufficiently, especially in light of the phased roll-out that further allows for a revised pace to meet identified challenges in agency adoption and training for the ERP system.

2.1 Areas Assessed

The following section specifically addresses the direct request from the State of Tennessee to examine and comment on the following areas:

- Organizational Change Management
- End User Training
- User Acceptance Testing
- Agency Reporting and Analysis
- Agency Readiness
- Edison Support Readiness
- Contingency Planning
- Business Value Realization

2.1.1 Organizational Change Management

Issue Description: Large-scale technology deployments typically include significant process changes which require considerable new learning by end users. Organizations can embrace these changes and challenges if the new system benefits are well understood and the path to success is well defined. If no socialization effort is made to market these new benefits or explain the success path, there is a high-risk that users develop a stiffened resistance to the new system.

Finding(s): Many agencies were previously supported by their own legacy systems which they autonomously controlled. This familiarity with the status quo engendered significant resistance to new the Edison system. Some agencies were unsure of their deployment readiness as they did not comprehensively understand the new system or recognize a clear path to success.

1. **Marketing the Need for Change** – The program lacked a well-defined and broadly socialized platform for change. Gartner found several cases where agency senior management did not explain to their user base why the new systems were needed and what organizational benefits would be delivered. Gartner found no evidence that the appropriate climate for change had been early established and continuously reinforced through the lifecycle of system implementation.
2. **Communication Processes** - Many users were not prepared to use the new systems on their scheduled cut-over date. This was the result of deployment activities being conducted in an informal manner and the criteria for success not being clearly defined or known by the end users. This lack of success criteria made it difficult for agencies to determine if their transactions were being processed correctly. In addition, end users had no structured communication channel (such as a formal end user group) to consolidate their concerns and obtain direct feedback from the support team.
3. **Change Management Documentation** - The application design, setup and configuration was not fully documented. System enhancements and customizations have significant user interface differences when compared to the core application. These factors contributed to vocal end user discontent about new business processes being difficult to learn, less-efficient than legacy systems, and eroding productivity.

Business Impact: End user resistance to embrace the new Edison system will erode organizational efficiency and impact agency effectiveness if not corrected.

Recommendation: Conduct a Change Readiness Assessment program led by Senior Leadership. This program should produce a specific plan to create positive organizational attitudes that welcome the new system and eagerly embrace its benefit potential. Part of this plan must be a communication strategy that has consistent messaging about the rationale for migrating to the new system. With a climate of acceptance in place, the real work of process improvement and benefit realization can begin in earnest.

2.1.2 End user training

Issue Description: End users develop comfortable patterns of interaction through long-time familiarity with their legacy systems. Even though new systems may have intuitive interfaces, improved functionality, and simpler processes, end users must be formally trained to witness the new step-by-step interactions their work tasks will require.

Findings: End users have limited confidence in their ability to use the new system to conduct their normal daily business activities.

1. **Step-by-Step Training** - Step-by-step training on how to conduct regular business processes was not part of the formal training program scope. Instead, the training program primarily focused on generic system navigation and general functionality.
2. **Agency Specificity** - Although Edison procedural manuals were created, their details were not adapted for the transactions specific to each individual agency. End users deemed these manuals to be unsatisfactory since they lacked this detail.

Business Impact: Without confidently trained end users, the new system will naturally be interpreted as different and difficult. End users will struggle to map their old behavioral patterns to the new system and organizational efficiency will erode. The benefits of the new system cannot be realized without successful end user adaptation of behavioral patterns.

Recommendations: Enhance existing end user training with step-by-step process examples that are customized for each agency's specific needs and usage patterns. Make Edison-related

training mandatory and ensure the right users are trained at the right time. Provide ongoing training for users who are not yet comfortable with the new system. Increase the number of training workshops and their content scope to ensure the user community feels a comprehensive course of training is available to them.

2.1.3 User Acceptance testing (UAT)

Issue Description: User Acceptance Testing is used to subject new technology systems to the stresses and usage patterns that end users will place upon the deployed environment. This testing identifies potential problems that are difficult to detect by the non-users who are designing, configuring and implementing the system.

Findings: The Edison Project followed a testing approach that is not consistent with best practices for ERP implementation.

1. **UAT Testing Plan and Resolution Paths:** Agencies deployed in Wave 1 and 2 were cut-over to production environments without conducting comprehensive UAT, and UAT participation did not include all agencies. Instead the project team elected to conduct post-implementation workshops to assist wave 1 and 2 agency staff with issue resolution and error correction.
2. **UAT Testing Rigor:** Testing documentation is not complete; the testing data/values actually used are unknown, the desired outcomes versus actual outcomes are not listed, complete end-to-end business processes were not covered, and entirely converted data was not used. Testing did not include efforts to "break" the system, test boundaries, or explore all possible conditions.

Business Impact: Wave 1 and 2 agencies continue to incur issues that, in some cases, cause an inability to complete normal business transactions. At the time of the assessment, there remained approximately 302 open issue tickets related to Wave 1 and 2, some of which were designated "Urgent" and "High" priority. Wave 3 agencies will likely accelerate trouble ticket volume and exacerbate issue resolution cycles and turnaround timeframes.

Recommendations: Develop and implement a UAT plan that proves, as comprehensively as practical, that the system has no major defects and is ready for production. UAT testing scope should be extended to regressively test all post-cutover system changes before migrating them into the production environment. UAT should be conducted across all agencies, and the results must be systemically tracked and clearly documented.

2.1.4 Agency Reporting and Analysis

Issue Description: Given the modern-day reliance on data-driven reporting to manage organizations, the migration to a new technology system requires careful validation that the current set of required reports can continue to be produced by the new system.

Findings: Many agency reporting requirements are not met by the new system. Queries, data extraction and information harvesting were found to be cumbersome for many users.

1. **Awareness of Reporting Capabilities** - The Edison team collected legacy system reports from each agency and developed a replicated version of them in the new system. In some cases new reports were developed where rote replication was not possible. Despite these efforts, many of the agencies are unaware that their required set of reports are available in the new system. In some cases they do not know where to find them or how to run them. Many agencies are not proficient in writing data queries to serve their ad-hoc needs.

2. **Training on Customized Reporting** Some custom reports have been developed by users; however, these efforts appear to be mostly thru third party interfaces (e.g., cashiering system), minor modifications, and format tailoring to mimic the look and feel of legacy system reports. Agencies are generally challenged in developing custom reporting due to a lack of appropriately-trained skilled resources.

Business Impact: Agency managers are experiencing a diminished capability to analyze their business data and effectively inform their decision-making.

Recommendations: Develop a reporting-specific training curriculum that teaches the step-by-step processes to produce available reports, covers report scheduling functionality, and includes report modifications. Additionally, provide advanced training workshops and expert help to support agencies in their development of custom queries and reporting.

2.1.5 Agency Readiness

Issue Description: Before cutting-over to a new technology system, the user community must be fully equipped to conduct their existing normal business processes using the new system.

Findings: The user communities were not fully trained and prepared to conduct their day-to-day transactions in the new system. Their new systems were not subjected to rigorous and methodical validation exercises. This lack of preparedness was not identified prior to cut-over in many cases.

1. **Requirements Scoping** – User requirements for Wave 1 and 2 agencies are reportedly still being defined in post-implementation workshops. New issues continue to surface long after cut-over dates.
2. **Agency Preparedness Guidance** - Agencies were responsible to validate their own data during the pre cut-over data conversion process. Despite this responsibility, many of the agencies did not have detailed plans that structured their validation and defined a specific set of tests to perform. No guidance was provided to the agencies and their liaisons on how to structure these validations and define their success criteria.
3. **End user Confidence** – As a result of the extensive issues experienced by Wave 1 and 2 agencies, stakeholders in many Wave 3 agencies report they have developed “work-arounds” in the expectation that Edison will not fully meet their business needs.

Business Impact: The workload for many users has significantly increased and they are reporting it difficult to process their business transactions. Due to the magnitude of change introduced by the new system, coupled with the volume of transactions that agencies must process, the majority of employee time is spent on manual data entry and error correction. This precludes the performance of business analysis or other higher value work.

Recommendations: Develop checklists that specifically prescribe the validations and activities that each agency must follow during the migration process. Many checklist items can be standardized across all agencies. These checklists should exhaustively specify each activity, define a timeframe to perform them, describe the inputs to make and the outputs to validate, and ensure user awareness of critical dependencies. These checklists should be in place well ahead of actual cutover and rehearsed with key agency stakeholders.

2.1.6 Edison Support Readiness

Issue Description: New technology systems that broadly impact the existing business processes of large user groups demand a highly structured support system. This support

system should be staffed with dedicated resources with prior experience in providing end user support.

Findings: An appropriately robust support structure has not been planned to provide necessary ongoing operational support. While existing support resources are very familiar with the configuration and processes inherent in the State of Tennessee's Edison system, they generally lack the experience and training to meet the exacting demands of professional end user support.

1. **Support Preparedness** - Staffing levels for various parts of the Edison support team are not aligned with the characteristics and demands of the project. Some agencies report frustration with Edison's ability to provide responsive and timely help desk support. Many end users perceive a lack of readiness with the existing support staff structure
2. **Formal Support Processes** - There is a lack of a formal processes to effectively provide incident management, support service change requests, provide additional training, and nurture end user development.
3. **Training of Support Staff** - Although the project team is fully committed and eager to complete the project successfully, a comprehensive awareness of project details is lacking. There is no evidence of a formal training program to enhance the support-delivery competencies of project resources.
4. **Previous Experience of Support Staff** – The Edison support team lacks previous support experience with systems of similar scope and complexity.

Business Impact: End user frustrations with inadequate support threaten to undermine the realization of system benefits. These benefits are predicated on assumptions of skilled system usage and growing workforce efficiencies.

Recommendations: A number of changes were recently implemented to improve the existing support staff structure, and the Edison project team has increased the number of dedicated resources. These changes must be continually reinforced by following a structured plan of support delivery and ongoing capability adjustment.

2.1.7 Contingency Planning

Issue Description: Core business activities that highly rely on technology systems must have contingency plans in place to mitigate the effects of technology migration issues and potential failures.

Findings: The contingency plans in place do not address the high-risk area of system failures that could occur post cut-over. The contingency staffing in place is not equipped or rehearsed to handle a serious system failure.

1. **Contingency Plan Scope** - The scope of the existing contingency plan is limited to managing the risks of delaying cut-over dates. No contingency plans were discovered that address actual system failures which might surface after cut-over occurs.
2. **Contingency Plan Updates** - The existing contingency plan was documented prior to Wave 1 cut-over and has not been updated since.
3. **Contingency Resources** - The Edison team has designated key stand-by resources for Finance and Procurement contingency support. These resources are chartered to provide 24x7 end user and technical support. Despite the provisioning of this full resource coverage, there is no evidence this staff has ready knowledge of contingency

plan procedures or has received adequate training to remediate the impact of system failures.

Business Impact: A post cut-over system failure would generate a high degree of risk to the State. The corrective processes for such a situation would have to be defined in the midst of this highly-charged situation, and the results of such rapidly developed corrective actions would be less predictable than a formal contingency plan designed through an upfront planning effort.

Recommendations: Expand the scope of the existing contingency plan to include recovery procedures for high-risk situations such as post cut-over system failures. Establish a defined schedule to periodically review and update the contingency plan.

While agencies prepare for cut-over, conduct comprehensive mock rollouts to build agency confidence and experience for contingency planning. Ensure every task is fully documented and the desired outcome (with witness criteria) is included. Train agencies to document all rollout steps and confirm each task completion with a formal sign-off. Add contingency steps to these rollout plans so personnel have pre-defined guidelines on how to handle unexpected events.

Ensure key project resources are intimately familiar with contingency plan procedures, have adequate training to implement required corrective actions, and have rehearsed the handling of especially high-risk situations.

2.1.8 Business Value Realization

Issue Description: Investments in new technology systems are made with supporting assumptions and calculations that estimate the future business value to exceed system cost. The actual accrual of business value should be tracked and reported through a formal program of Value Delivery Assurance. This enduring program should motivate a continual drive to fully leverage the new system capabilities and realize the planned return on investment.

Findings: A formal Business Value Delivery Assurance program has not yet been created. End users currently report a significant loss of productivity in day-to-day task execution due to poor business process implementation and inadequate training.

1. **Value Delivery Assurance Planning** - There are implicit beliefs that Edison will deliver increasing value over a 3-5 year growth period and stabilize thereafter; however, the tracking of specific measures has not been formally quantified.
2. **Operational Implementation** - The implementation project has not yet taken full advantage of the opportunity to streamline business processes and provide a more efficient operating environment. This provides a large opportunity for improvement as the Edison program continues to develop and mature.
3. **Expectations of Future Value** - Edison appears positioned to fulfill the ERP promise of delivering standardized business processes and enhanced coordination across many agencies.

Business Impact: Without a formal and effective Business Value Delivery Assurance program in place, the key motivating force to drive full Edison leverage will be missing. Without this enduring focus, the ultimate return on investment cannot be tracked, victory cannot be claimed, and the decision to implement Edison will forever be subject to debate.

Recommendations: Review and restate the project's business objectives to ensure consistent messaging across the State regarding the rationale for migrating. Reinforce key benefits to the user community and formally track the accrual of business value to motivate and sustain a cycle of continuous improvement.

2.2 Alternatives Analysis

As a result of the preceding findings, three options were evaluated for Edison’s Wave 3 implementation. These options are:

- **Option 1** – Stay the Course and Deploy Wave 3 According to Original Plan
- **Option 2** – Delay Wave 3 until Testing and Training are Complete
- **Option 3** – Hybrid Model – Prioritize and Sequence Agencies into Phased Releases that Account for Differing Needs and Level of Readiness

The following tables summarize these options and Gartner’s assessment of each.

Table 1: Alternative 1

Option 1 – Stay the Course and Deploy Wave 3 According to Original Plan	
Pro’s	Con’s
Maintain credibility and project momentum.	Wave 1 and 2 agencies will receive diminished support as a result of increased support demands from new Wave 3 users.
Continued intense focus and sense of urgency.	Wave 3 agency confidence will be lacking due to outstanding questions, the absence of testing, and general perceptions on lack of readiness.
Concentrate support from Edison support team on same system.	Strong potential for financial impacts due to late vendor payments or non payment.
Financial Accounts staff are prepared for year-end close on Edison.	Based on Wave 1 and 2 data, the expected volume of open issues will increase by 40% - 50%, severely overloading the Edison support staff.
	Resource constraints on the Edison team will become more acute with additional complex agency implementations.

Table 2: Alternative 2

Option 2 – Delay Wave 3 until Testing and Training are Complete

<u>Pro's</u>	<u>Con's</u>
Agencies will be better prepared and Edison will be able to take a proactive approach.	Some end user training will need to be repeated.
There will be a higher level of confidence for the Wave 3 agencies. Job-based training can be developed and delivered.	Data conversion efforts which have been completed to date may need to be repeated in the future.
The quality of the Edison solution will be increased due to more comprehensive testing and adequate preparation time.	The F&A Accounts organization and the Edison functional teams will need to support two systems.
The agencies and Edison will have time to complete thorough integration and user acceptance testing	Year end financial reporting will need to be completed using two different systems.
Reduced organizational risk as Wave 3 users become better prepared and the Wave 1 and 2 users gain time to correct their errors/issues.	Risk of declining program momentum and mental disengagement by the Edison team and F&A staff.
Thorough testing and training will reduce the operational risk to the agencies and the State.	No evidence of contingency plans for year-end financials close.

Table 3: Alternative 3

Option 3 – Hybrid Model – Prioritize and Sequence Agencies into Phased Releases that Account for Differing Needs and Levels of Readiness

<u>Pro's</u>	<u>Con's</u>
Agencies will be better prepared and Edison can employ a more measured approach.	Some end user training will need to be repeated.
Wave 3 agencies will have a higher level of confidence in the usage of Edison. Job-based training can be developed and delivered.	Data conversion efforts which have been completed to date may need to be repeated in the future.
Quality of the Edison solution will be increased due to more comprehensive testing and adequate preparation time.	The F&A Accounts organization and the Edison functional teams will need to support two systems.
Wave 3 agencies and Edison will have time to complete thorough integration and user acceptance testing.	CAFR development will need to be completed using two different systems.
Reduced organizational risk as Wave 3 users have higher preparedness and the Wave 1 and 2 users have the ability to correct their errors/issues.	Risk of declining program momentum and mental disengagement by the Edison team and F&A staff.
Thorough testing and training will reduce the operational risk to the agency and the State.	No evidence of contingency plans for year-end financials close.
Staged rollouts allow the State to place more focus on realizing business benefits.	Some end user training will need to be repeated.

The above options were assessed according to a number of criteria, including best practice implementation processes, risks and costs of each option, and organizational capacity. This assessment guided Gartner to recommend Option 3 in the above table as the preferred solution. This recommendation is described in Section 2.3 below and was ultimately adopted by the Edison team.

2.3 Summary Recommendation for Wave 3 Implementation

Gartner recommended the Edison Project phase the implementation of the balance of the FSCM scheduled Wave 3 agencies and ensure that the pre-cutover procedures and agency

approvals were complete. Finance and Administration acted on this recommendation and developed a revised schedule with a phased cut-over of remaining agencies on July 1st, September 1st and October 1st of 2009.

The Edison team has already begun to act on this recommendation by providing targeted business process training, improved testing rigor, and extended levels of communication and end user engagement. These actions have produced a positive effect on the agencies and resulted in a greater degree of readiness, thus minimizing cut-over risks for the remaining FSCM agencies.

3.0 FSCM Functionality and Usability

This section of the report provides Gartner's assessment of specific FSCM module functionality as deployed within the State, including adequacy of internal controls, timeliness of vendor payments, and the ability to "draw down" federal funds fully and correctly. In addition, Gartner has provided recommendations to improve usability of these functions where appropriate.

3.1 Areas Assessed

The State of Tennessee requested that Gartner address specific functionality and usability issues, which resulted in assessment of the following areas:

- Adequacy of Internal Controls
- Timeliness of Vendor Payments
- Ability to "Draw Down" Federal Funds Fully and Correctly
- System Usability
- Accuracy and timeliness of transactions

3.1.1 Adequacy of Internal Controls

Issue Description: Most ERP systems have industry best practices designed into the software for the purposes of internal control. It is important to ensure that the configuration of these best practices has been completed appropriately and incorporates the State of Tennessee's financial management policies and practices.

Findings: Gartner assessed the effectiveness of Edison's implementation of system financial controls based on industry best practices. This review did not assess the efficacy of existing internal controls or provide assurance that these controls are adequate, complete or in compliance with Generally Accepted Accounting Practices (GAAP) or Governmental Accounting Standards Board (GASB). While the issues described below require prioritization and mitigation by the Edison Project, the opportunity for strong agency and state level enforcement of internal controls as well as future efficiencies and access to data can be achieved.

1. **Governance Process** - There is a formal governance mechanism in place to monitor and manage internal controls. The Edison Steering Committee manages internal controls according to the approved system configuration decisions.
2. **Documentation of Internal Controls** - System requirements documentation included specifications for internal controls. These were loaded and tested and have been put into production during the implementation project.
3. **Diagnostic and Analytical Reporting Capabilities** - The Edison project team is in the process of enhancing practices and processes, such as providing additional reporting/queries capabilities for managing and tracking system-related internal controls on an ongoing basis.
4. **Purchase Orders:** All Purchase Orders (PO)'s in Edison must be associated with a contract. A minimum of two to three different approvals are required before payment

is made against that PO, depending on the type and value of the transaction. This is consistent with GAPP.

5. **Role Assignment Errors** - Each agency was responsible for completing their individual role-mapping process for the delegation of staff duties. As a result of insufficient training and knowledge of the process implications, some agencies incorrectly submitted roles for specific system processes (i.e., authority to perform certain processes within a software function). Consequently, system related role-mapping documents were incorrect.

Business Impact:

1. **Documentation of Internal Controls** – There is an increased level of effort required to manage internal controls and mitigate risk at the agency or statewide levels.
2. **Role Assignment Errors**– In some cases, existing staff within agencies were unable to perform some required job functions resulting in user frustration and loss of productivity in the short term until corrected (post cut-over support).
3. **Diagnostic and Analytic Reporting Capabilities** - Agencies should ensure that they have adequate understanding of the Edison configuration and internal controls and that they have the capability to develop queries and diagnostic reports.

Recommendations:

1. **Governance Process** – Continue with ongoing monitoring and tracking of system-related internal controls using available tools. These tools, once implemented as planned, will help automate the management and enforcement of internal controls.
2. **Documentation of Internal Controls** – Document controls at agency and State levels and implement within existing diagnostic and reporting tools described above.
3. **Role Assignment** – Review all role assignments and provide additional training as required (the Edison team is actively working to address this issue).
4. **Agency Delegation of Authority Variations** – Agencies need to establish a risk mitigation strategy (e.g., periodic or random sampling of approved purchase orders) and document and review all existing delegations on a periodic basis.

3.1.2 Timeliness of Vendor Payments

Issue Description: Initial feedback from user agencies indicated that vendor payments were incorrect or delayed in certain circumstances. One of the objectives of the assessment was to look into possible causes of this feedback.

Findings: As a result of implementing new vendor management and common procure-to-pay processes across the State, many agencies have experienced frustration with business process changes and system requirements that have resulted in delayed vendor payments. However, it is equally important to acknowledge that the Edison system is successfully processing thousands of transactions on a monthly basis. In addition, the Edison project team and core business process owners have implemented a number of changes to improve the procure-to-pay processes. Gartner anticipates that these problems will be resolved during the stabilization period of the Edison Project.

1. **Delayed Vendor Payments** – In order to mitigate the risk of business process change and learning associated with FSCM, it was decided, for internal control purposes, to introduce an interim policy that requires an approval from Finance and Administration (F&A) for all vouchers greater than \$500. If F&A finds a data entry

error on the voucher, F&A will reject the voucher and the agency is required to make the correction and resubmit the voucher. This interim policy will be eliminated once F&A is satisfied that the risk of voucher errors for purchases greater than \$500 has been mitigated. However, the process can extend the vendor payment process significantly.

2. **Inefficiency of Purchase Order Workflow Process** - It is difficult for agencies to verify whether purchase orders are referencing the contract during the approval process. As a “work-around”, some agencies have initiated the procedure of conducting a “Print Preview” of the Purchase Orders during the workflow approval process in order to validate the correct contract information. The Edison Project team is in the process of modifying the system to correct this issue and enable more efficient workflow.

Business Impact:

1. **Delayed Vendor Payments** – Some vendors have not been paid in a timely manner and there is an increased risk that the State will bear late payment fees. In addition, the State will not be able to receive discounts for early payment.
2. **Inefficiency of Purchase Order Workflow Process** – Agencies are less efficient in the processing of purchase orders, requiring relatively more labor effort than under the prior conditions. In addition, challenges with workflow processes have also introduced the potential of purchasing incorrect products and services.

Recommendations:

1. **Delayed Vendor Payments** – The Edison Project should consider allowing a higher purchase order threshold for vendor payments reviewed by F&A or consider eliminating the interim policy. In addition, the State should define metrics to measure the lifecycle times for various procure-to-pay processes in order to set expectations and better manage customer service levels.
2. **Efficiency of Purchase Order Workflow Process** – Refine the configuration of the workflow process.

3.1.3 Ability to "Draw Down" Federal Funds Fully and Correctly

Issue Description: Gartner was requested to examine the reported problems that agencies were having with the “draw down” of federal funds and grant monies within Edison.

Findings: Based on Gartner’s review, it appears that all agencies are now able to effectively and accurately “draw down” federal funds and no significant issues were discovered. While the ability to “draw down” federal funds was an issue for one agency due to unique processes that were missed during the design and configuration phase of the implementation, this issue appears to have been resolved. Agencies are equipped and trained to perform these processes.

Business Impact: N/A

Recommendations: N/A

3.1.4 System Usability

Issue Description: While the core system functionality appears to be performing as designed and is capable of processing transactions, some users of Edison have found it difficult and challenging to use the system and have expressed varying levels of frustration.

Findings: Gartner believes that the majority of complaints from end users can be attributed to a lack of comprehensive training on how to complete their day-to-day job activities within Edison and a significant increase in work effort for some users that can be attributed to business process change requirements.

1. **Limited End User Training** – Limited training was provided for agency-specific business processes. Consequently, when agencies “cut-over” to the new system, many agencies experienced problems using the Edison system. This situation became more serious with the introduction of automated workflow for approval of purchase requisitions and manager self service as some of the roles were not accurately mapped and tested.
2. **Business Process Change Management** – In addition to limited end user training, the amount of change represented by Edison for the day to day work practices resulted in less efficient processes (e.g., processing of purchase orders) with some users. Since end to end agency-specific processes and transactions were not tested during user acceptance testing (UAT), this problem was exacerbated. Finally, user expectations were not managed effectively, resulting in unrealistic expectations that immediate benefits would be realized by using the system.

Business Impact: The problems related to system usability resulted in a loss of credibility and resistance to the Edison Project among some stakeholders. In addition, the insufficient end user training on agency-specific business processes resulted in a greater degree of short term process inefficiency and change than desired during the post implementation period.

Recommendations: For remaining Wave 3 agency deployments, the Edison team should utilize the Agency Readiness Checklist developed by Gartner and the Edison team to minimize the business impact of system usability issues. In addition, the Edison Project should enhance existing training by introducing business process-centric and agency targeted training.

4.0 Human Capital Management (HCM)

The assessment of Tennessee's Human Capital Management (HCM) post-implementation support has two components. In the first, we identified key issues and recommended improvement opportunities for remediation within the areas of help desk, human resources staff training, end user training, and system usability. In the second component, we compared Tennessee's implementation to selected state government organizations with the same software in operation.

- HCM Key Issues and Areas for Remediation
- Comparative Analysis (see Section 5.0)

4.1 Areas Assessed

The primary areas of examination for the HCM review include the following:

- Help Desk
- End User training
- Human Resources Staff Training Content and Delivery
- System Usability
- Accuracy and timeliness

4.1.1 Help Desk

Issue Description: New technology systems that broadly impact the existing business processes of large user groups demand a highly structured support system. Help Desk support is one of the key service components of this structured support system.

Findings: Users have found it difficult to obtain support from the Edison Help Desk when they encounter a problem with time entry or benefits transactions. Gartner found that Tennessee utilizes four (4) separate help desks to provide end user support. The four are Payroll, Benefits, Edison, and Office of Information Resources (OIR). This fragmented approach leads to inefficiencies, process and status uncertainty, and end user confusion on where to initiate an incident/report a problem. Examples of processes in need of improvement include:

- A user contacts a functional business process support person directly for assistance – no ticket is created and the event is not logged;
- A user has to decide which help desk to call (e.g. Payroll, Benefits, Project Edison or OIR Help Desk) versus a single, easily identifiable point of contact that would triage and coordinate the call routing;
- There is no decision tree for the help desk to handle support. The same issue may be handled differently by different analysts;
- There is no effective method of capturing and storing “known solutions”; and,
- There are no set processes, criteria or set of rules to prioritize issues and govern the escalation process.

In addition,, Tennessee's help desk staffing is more than twice the size of the other states profiled in Section 5.

Business Impact: Due to the fragmented nature of issues and associated data tracking, it is difficult to determine the over-all status of issues. It is also challenging to coordinate resources effectively and efficiently to manage incidents and problems. These impacts are the result of the following:

- Root causes of problems which may underlie many different reported user incidents are not logged in Remedy.
- No formal proactive monitoring of issues is done to identify trends (e.g., ITIL Problem management has not been effectively implemented).
- There is no knowledgebase of issues and related fixes which contributes to the need for a high level of staff and high skill level among those staff.
- Help desk staff are not using the test environment to troubleshoot issues.
- First call resolution metrics are not consistently tracked. Maximizing first call resolution rates is one of the most fundamental strategies for improving customer satisfaction and reducing help desk staff.
- Many help desk calls could be avoided entirely through the use of online FAQ type tools and automated password reset utilities.

Recommendations: Gartner recommends the following improvements for HCM help desk structure and processes:

- Develop a roadmap to consolidate all users' requests for support to a single help desk with different levels of support and a single contact. Create a ticket during the initial call that is then routed and tracked throughout the support organization.
- Develop and use decision trees for proficient troubleshooting with pre-determined rules/criteria/actions to handle every type of help desk call.
- Prioritize, manage and escalate all help desk tickets with pre-determined rules/criteria/actions.
- Develop processes and reports to determine and log the root cause and trends of issues.
- Provide help desk staff with access to a test environment which matches production so that issues can be recreated and/or diagnosed.
- Develop a knowledgebase for the help desk staff to help identify and remedy recurring issues.
- Develop standardized help desk policies and procedures and communicate them to agencies.
- Develop internal programs to measure and monitor help desk quality and performance for improvement purposes.
- Connect/Involve help desk personnel with the other support teams to ensure they understand changes being made to the system.

4.1.2 End User Training

Issue Description: Many system issues reported by users are actually failings in the end user training which was generally insufficient or unfocused. It is important to identify and distinguish training-related issues from system issues.

Findings: There is a limited degree of confidence that the Edison system can perform required daily system-dependent business activities. Although procedural manuals were created, these manuals were considered to be unsatisfactory since they were not geared to individual agency' business processes.

- **Training Scope** - End-to-end process and targeted training were not part of the scope of the Edison project. Instead, the training program mostly focused on system navigation and delivered functionality. As a result, the user community is not fully equipped and trained to perform their day-to-day transactions in the new system.
- **Training Participation** - Training is a key challenge due to complexity of PeopleSoft relative to most existing legacy systems and the decentralized nature of most Tennessee government operations. Not all agencies expecting to use the system attended training. Often, many users saw training as optional versus mandatory.
- **Training Evaluation** - Some of the HCM training workshops conducted by the Edison team were considered successful. A number of improvement recommendations were identified and documented in lessons learned documents (e.g., tailor the training approach). However, independent training efficacy analysis and evaluation was not conducted to determine the success of the training that was conducted.
- **Training Materials** - Some training materials and the training environment did not reflect production setup and configuration; consequently, some training was too generic. Agency representatives had trouble identifying relevant information.

Business Impact: Key personnel and time entry related transactions have been delayed due to a lack of understanding of how to process the transaction or use the Edison system. Initially, this was causing errors or delays in employee pay checks. Most of these issues have been resolved and the HR, Benefits and Payroll representatives, as well as the Edison HCM team, have worked with agencies to increase training and awareness. It is likely that there are other instances where lack of training, understanding or alignment with agency processes is creating the appearance that the system is not delivering value.

Recommendations: Gartner recommends the following activities to improve Edison end user training:

- Ensure all major changes to the system and/or business process are reflected in the training material in a timely fashion. Provide a communications method for achieving this and tracing accountability.
- Develop and execute improvement initiatives that drive higher agency participation to develop and implement efficient business processes within the Edison ERP system.
- Continue end user training and adoption programs, assuring clear accountability (roles and responsibilities) and communications.
- Develop and offer remedial training programs to those agencies who believe this is still a critical barrier to success.

4.1.3 Human Resources Staff Training Content and Delivery

Issue Description: HR staff has been learning the Edison system throughout the implementation project and are expected to provide training to HCM end users. In some cases, the end users were dissatisfied with the level of HCM knowledge that the trainers had.

Findings: The Project Edison training staff does not always have sufficient State and/or PeopleSoft experience. A train-the-trainer approach was used during the Edison project

implementation. HR staff report that this process was insufficient. The trainers' lack of HR process knowledge/experience and their lack of familiarity with how the Edison system works technically and functionally has resulted in State trainers having to learn the PeopleSoft system on their own.

Business Impact: There is a continued user frustration regarding how to complete day-to-day tasks via Edison. End users are also frustrated by time wasted struggling with a system because of a lack of sufficient training. In addition, there is an unnecessary increase in Help Desk volumes due to system users not being able to understand the nature of their own issues, and escalating issues when in fact they are simply training gaps versus system problems.

Recommendations: Gartner recommends the following improvements for HCM Human Resources Staff training content and delivery:

- Develop a semi-annual process for updating training documentation and database.
- Connect/Involve training personnel with other areas within the support teams to ensure they understand changes being made to the system.
- Monitor and analyze the Help Desk issues log periodically to determine training needs or effectiveness, and make timely adjustments as necessary.
- Find opportunities for trainers to be involved with agencies or to shadow super users to get familiarized with the way business is conducted. Trainers can also help agencies develop business process manuals.
- Provide advanced training to staff to include business analysis techniques and problem solving skills.
- Monitor and measure trainers' effectiveness objectively on an ongoing basis.

4.1.4 System Usability

Issue Description: System Usability describes the ability for an end user to conduct their business via the Edison System and its configuration to support the business of Tennessee State.

Findings: Many agencies reported initial usability problems with the system. These problems manifest themselves in several ways. In some agencies, end users have avoided using the system because they have found the system to not be user friendly and difficult and cumbersome to navigate. Others have created their own materials to help them navigate it and complete their required work, and this may lead to a lack of standard user interfaces...

- Some agencies creatively developed their own training and procedural materials in order to overcome usability issues.
- New business processes for time and attendance and automated routing of leave approvals were introduced into agencies. These automated processes involved a high degree of change and acceptance on behalf of end users, and there was a lack of communication on how the user self-service and automated workflow would impact their day to day operations.
- Accurate role mapping was a critical success factor in implementing and successfully using the time and attendance functionality. Agencies experienced challenges entering and approving time, which resulted in errors in paychecks or delays in paying staff. In some cases, incorrectly mapped roles caused confusion to users and slowed approval processing.

- Some custom pages were not planned or designed very well. Their look and feel, data validation and naming conventions are inconsistent with the delivered PeopleSoft pages. Custom developed pages do not have links for “Help” on the page in use. Custom developed pages also did not have user friendly error messages.

Business Impact: Usability issues have generated several business impacts, including: the inability of staff to perform tasks, data entry errors, processing errors and the inability to complete work within assigned staffing and time parameters. Within some agencies, there is a general lack of understanding on how to research, reconcile or conduct analysis on data. Some agencies do not know where to start to troubleshoot issues or to correct errors; and users do not know which reports/queries they are supposed to run or when to run them.

Recommendations: Gartner recommends the following improvements for HCM System Usability:

- Develop a business application competency center to discover or develop advanced methods for system usability.
- Monitor for system workarounds or uses of shadow systems to identify usability issues.
- Get end users involved with system design changes and usability decisions.
- Have the support team engage regional/national user-groups to help identify and resolve usability issues.
- Benchmark core highly repetitive business processes to determine efficiencies issues or to identify automation opportunities. Ask end user teams to identify alternatives for increasing productivity.
- Monitor help desk logs to understand system usability issues.
- Develop customization/enhancement standards and quality review processes for all developed pages to be consistent with the delivered PeopleSoft look and feel.
- Develop user friendly and informative error messages for custom pages.
- Add help page links and content for each custom page developed as a standard practice.

4.1.5 Accuracy and timeliness of transactions

Issue description: Some concern was expressed that payroll transactions were not being processed accurately and were delayed.

Finding: Key personnel and time entry related transactions have been delayed due to a lack of understanding of how to process the transaction or use the Edison system. Initially this was causing errors or delays in employee pay checks. It is likely that there are other instances where lack of training, understanding or alignment with agency processes is creating the appearance that the system is not delivering value.

Business impact: Some employees had paychecks delayed or that had inaccurate calculations. Most of these issues have been resolved and the HR, Benefits and payroll representatives, as well as the Edison HCM, team have worked with agencies to increase training and awareness.

Recommendation: Continue to monitor payroll processing and provide on-going training and support for time entry and approval throughout State agencies.

5.0 Comparing Project Edison to Similar Projects

Most of this report focuses on analyzing specific aspects of Project Edison and comparing them with State defined requirements or industry best practices. However, Gartner believes that much insight can be learned by examining highly comparable projects to understand the key challenges that had to be overcome before they were ultimately successful. This analysis will allow Tennessee to:

- Understand which problems are common pitfalls that just represent “bumps in the road” vs. unusually difficult challenges which require mitigating actions.
- Understand key mitigation strategies that can be implemented to avoid or lessen the impact of common pitfalls.
- Understand how comparable projects successfully navigated their challenges and were ultimately able to deliver promised business value in the eyes of key stakeholders.

Early in the process, we determined that the only meaningful comparisons for Project Edison would be other statewide ERP implementations. After an exhaustive analysis, which considered a number of different states, we settled on New Mexico and Connecticut as the most appropriate comparisons. There were several reasons that we selected these states which under different circumstances might not be considered to be “peer” states. The most important of these criteria were:

- Size of state population and state workforce,
- PeopleSoft based solution,
- Similar functional (module) scope
- Reliance on System Integrator (New Mexico also used Maximus, while Connecticut used Accenture)
- Implementations completed, but not so recently that “lessons learned” may not be fully apparent (i.e., initial stabilization period has passed)

Table 4 includes summary profiles that compare key aspects of the Connecticut and New Mexico projects with Project Edison. Table 5 contains a comparison of key post-implementation practices.

5.1 Comparison Summary

The most significant finding uncovered during our in-depth discussions with project representatives from the other states was that benefit realization, and stakeholder recognition of the benefits, does not occur until after a period of system stabilization. This period supports user adoption, agency system ownership and business process adjustment (including legislative changes to pre-existing statutes where required). In some cases, incremental investment by the agencies in terms of process streamlining, workforce realignment and training may be required to maximize future long term benefits.

Edison is a large and complex project that represents a tremendous amount of cultural and business process change in a short amount of time. This is not a unique situation. The issues and challenges faced by the Edison Project are similar to the experience of other statewide ERP implementations (such as Connecticut and New Mexico). In short, the most intractable challenges are generally not technology related, rather these problems are rooted in:

- Culture

- Organizational Change Management
- Business Process Adoption and Integration at the Agency Level

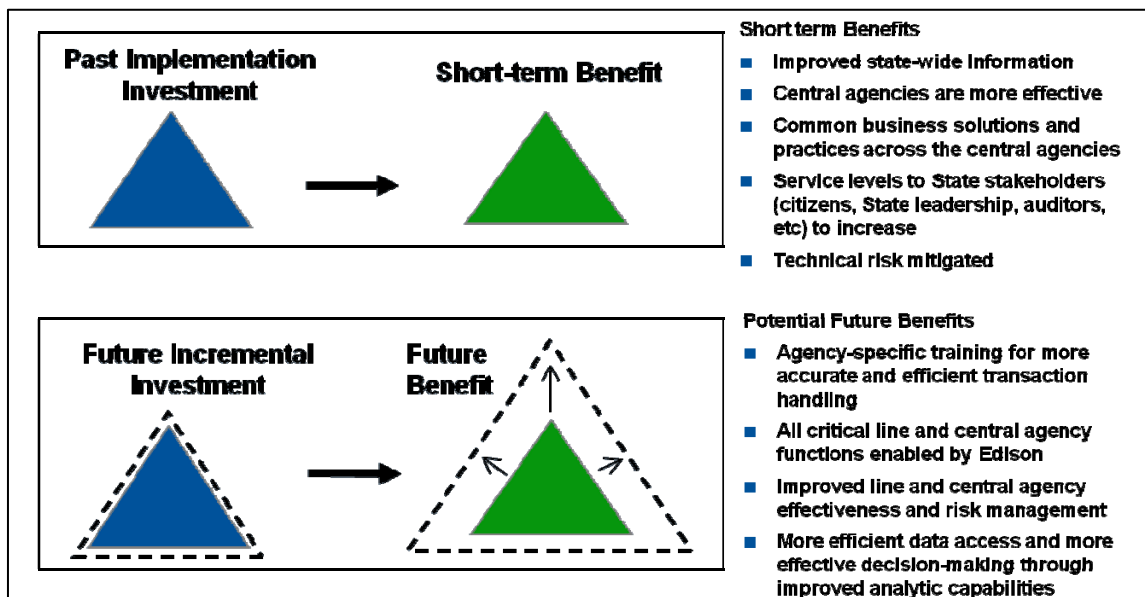
The Tennessee experience, while similar in nature to the experience of other states, was exacerbated by insufficient attention to agency expectations, user acceptance testing, business process training and stakeholder communications during implementation and afterward during the stabilization period.

The experience of New Mexico and Connecticut confirms that the ERP stabilization period may last from 1 to 3 years as:

- End users become more comfortable with the new system and agencies focus on process improvement
- The ERP organization migrates from implementation to support mode and focuses on enhancements that enable increased productivity

During the stabilization period, the focus will shift from achieving short-term system related benefits toward the achievement of longer-term business process and efficiency related benefits.

Figure 3. Shifting Focus from Short-Term to Long-Term Benefits



To date, the Edison team has focused primarily on those support activities which are required to support agencies immediately following go-live. There is an opportunity now to develop a more long range vision and strategy for the on-going support and enhancement of the Edison system, and its widespread usage and adoption by state agencies. Some initial priorities for Edison include:

- Evolving toward a governance process which will be all-inclusive and that enables “ownership” of Edison to move away from the project team and into the domain of the state agencies

- Work closely with agencies and user communities to ensure that support and stabilization solutions are focused on integrating support capabilities across organizational and business boundaries.

- Define success criteria for the overall support process, including metrics and time frames. Define the roles and responsibilities of the various organizations that are part of the “support chain” to support the achievement of these goals. Proactively measure attainment of these goals.

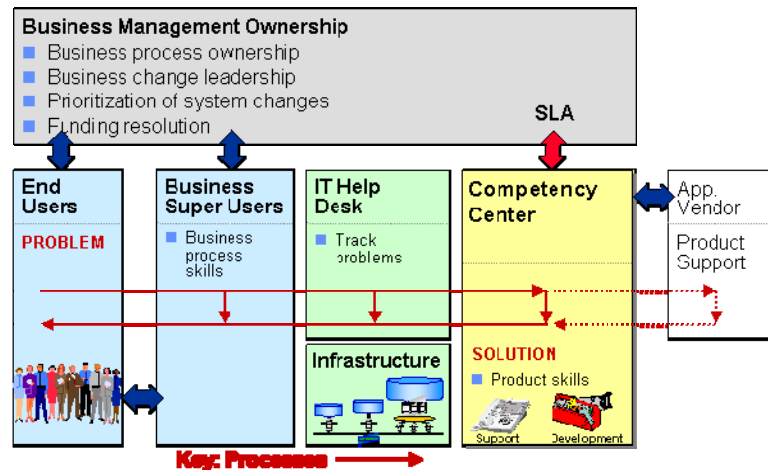


Figure 4. Participants in the “Support Chain”

5.2 Key Lessons Learned from Connecticut and New Mexico

The key lessons learned from the analysis of the experiences of these two states were as follows:

1. Define critical success factors (metrics, goals, etc.) for the post-implementation support period and design an organizational structure and formal support processes to meet these objectives. Avoid the temptation to rely on implementation project structures and “hero’s” as a substitute.
2. Ensure that the governance process includes all appropriate stakeholders and enables objective, pragmatic decision making. Evolve toward a governance model that puts primary strategic decision making authority into the collective hands of the agencies.
3. Work closely with agencies and user communities to ensure that there is an open line of communication. Create transparent mechanisms to ensure that user feedback is both heard and acted upon. Ensure that the results of these actions are communicated back to the users.
4. Define the roles and responsibilities of each member of the support organization. Ensure that roles are separated by function and by skill level so that expensive or scarce resources are properly leveraged and over-dependence on specific individuals is avoided.

5.2.1 State of Connecticut

- Reliance on experienced and senior skill sets who are now reaching retirement/end-of-role is weakening the ability to support the system.
- The governance structure had worked until recent internal culture and organizational challenges developed that inadvertently siloed the teams.

- The ERP initially relied upon super users with agencies for functional support, then developed their own dedicated team because external resources were unreliable.
- The IT department is completely separate from the ERP team. Some of the operational issues are common to IT and ERP support. As a result there is an overlap of responsibility and redundancy in providing user support.
- The ERP team relies on regional users groups for additional help and guidance.

5.2.2 State of New Mexico

- The State implemented agreed upon decision trees so that only one person has the authority to make a decision.
- At the project level, the State has state officials make the decisions since they are the ones who obtain funding.
- There is a clear separation between application support and project support and decision making.
- The State has separated production support personnel from project team personnel with clearly define role and responsibilities, increasing team effectiveness.
- The ERP team has not hesitated to bring in consultants when expertise is needed.
- The ERP team has developed clear strategies to take support to the next level and to achieve benefit.
- The ERP team relies on internal and external users groups for additional help, enabling it to effectively solve many issues.

Table 4 - Implementation Comparison

Comparison	TN (Edison)	CT (Core CT)	NM (Share)	
1. Scope of ERP implementation (major modules)	<ul style="list-style-type: none"> • HR • Benefits • Payroll • ESS • Compensation • Time & Labor • Insurance • ELM 	<ul style="list-style-type: none"> • Asset Manager • Budgetary • Cash • AR • AP • Travel • GL • Grants • IN • Project Mgmt • Purchasing 	<ul style="list-style-type: none"> • HR • Benefits • Payroll • Recruitment • Time & Labor • EPM • eProcurement 	<ul style="list-style-type: none"> • Asset Manager • AR • AP • Billing • Cash & Deal Mgmt. • GL • Commitment • Grants • IN • PC • Purchasing
2. ERP Software	PeopleSoft	PeopleSoft	PeopleSoft	
3. Current Release	8.9	8.9	8.9	
4. Activation (type/date)	Multi-phased (starting 7/2008)	Multi-phased (HCM, Financials) (7/2003)	Big Bang (7/2006)	
5. Approx. number of state employees	~52,000	~60,000	~24,000	
6. H/W Mgmt	State IT dept	State IT dept	Hosted	
7. System integrator when implemented	Maximus	Accenture	Maximus	

Table 5 - Evaluation Questions and Response

	TN (Edison)	CT (Core-CT)	NM (Share)
1. Describe the HCM post-implementation team	The HCM implementation management team transitioned to the HCM support team after activation. Most of the support team is made up of dedicated Edison Readiness resources. Agency business process expertise is requested on an as needed basis. Agencies are the BP owners.	Core team has defined roles for management. Support team has dedicated BP owners, trainers, and SME's. Additional expertise is requested from agencies on an as needed basis. Most of the support team is made up of dedicated direct resources.	Clearly defined direct roles within the support organization. Bring in outside consultants when expertise is needed. Use agency personnel when needed via temporary agreements with agencies. The service teams are dedicated direct resources and most of the rest of the support team is made up of indirect resources.

	TN (Edison)	CT (Core-CT)	NM (Share)
2. What is the primary structure of your organizational support team?	<ol style="list-style-type: none"> 1. Project Management 2. Edison Readiness <ul style="list-style-type: none"> • Help Desk • Training 3. Financials Team 4. HCM Team 5. Technical Team 	<ol style="list-style-type: none"> 1. Steering Committee 2. Project Directors 3. EPM & Security Team 4. Financials Team 5. HRMS Team 6. Technical Team <ul style="list-style-type: none"> • Help Desk • Training • Reporting • EPM 	<p>Project –</p> <ul style="list-style-type: none"> • Project Sponsor • Project Lead • Project Manager • Project Development Team <p>Application -</p> <ul style="list-style-type: none"> • Executive Sponsors • Application Oversight Team • Service Teams <ul style="list-style-type: none"> ○ Financials ○ HCM Benefits ○ Payroll/Time & Labor ○ Personnel ○ Consolidated IT • User Groups (internal)
3. Approx. how many people are dedicated to the post-implementation team?	85	100	28
4. Do you feel this is the right size for the post-implementation team?	Yes	Yes	Yes

	TN (Edison)	CT (Core-CT)	NM (Share)
5. Does your organization have a clearly defined support strategy/plan?	Partially	Yes – not implemented (turnover and politics interfering)	Yes – fully implemented
6. How long did it take to stabilize your system after activation (i.e., start achieving tangible benefits)?	In progress – still implementing financials	2 years	3 years
7. Is your support strategy fully supported by defined business processes?	Partially	No – support process evolved over time – job gets done by strong personalities and experience	Yes – at first support processes evolved but were dysfunctional. Redesigned via strategy and now working effectively
8. What is your Help Desk size (dedicated # employees)?	~24 in four distinct help desks (Payroll, Benefits, Edison and OIR)	12	5

	TN (Edison)	CT (Core-CT)	NM (Share)
9. Describe the basic structure of your Help Desk service layers	<p>Multiple options for calls</p> <p>Service Layers</p> <ul style="list-style-type: none"> • Level 0 – EHD or Functional Business Leads or other (OIR, Payroll, Benefits) • Level 1 – Internal Edison Readiness team • Level 2 – Internal technical and functional team support (consultants) • Level 3 – Critical Support Team 	<p>Single call all issues</p> <p>Service Layers</p> <ul style="list-style-type: none"> • Level 0 – IT dept (basic support) • Level 1 – ERP Team internal functional business team or technical team as necessary • Routed to experts 	<p>Single call all issues</p> <p>Service Layers</p> <ul style="list-style-type: none"> • Level 0 – ERP Call Center (basic support) • Level 1 – internal functional business team or technical team • Routed to experts
10. Does your help desk use a knowledge base and decision trees to aid in issue resolution?	Starting to develop decision trees – early stages	Yes, extensively use both	Yes, extensively use both
11. How is your support organization funded?	Currently funded - moving to transaction fee per use next fiscal year	Fully funded	\$178 per user/yr (moved away from fully funded)
12. Does your support team provide post-implementation classroom training?	Yes	Yes	Yes

	TN (Edison)	CT (Core-CT)	NM (Share)
13. What post-implementation training is available?	<p>Online UPK</p> <p>Instructor led classes</p> <p>Training manuals</p> <p>Online training FAQ's</p>	<p>Online UPK</p> <p>Online Job-aids</p> <p>Online training FAQ's</p> <p>Online training manuals</p> <p>Instructor led classes</p>	<p>Online UPK</p> <p>Online training manuals, primers and workflows</p> <p>Instructor led classes</p> <p>Instructor notes</p>
14. Do you have SLA's with your agencies?	No functional – some on the technical side	No (too political, wanted SLA's but never could agree on metrics)	No
15. Does your organization use/publish daily scorecards to measure quality and drive improvements?	No	Some for availability and quality	Yes, scorecard used to measure some performance measures, availability, quality (e.g., payroll), satisfaction, reports, workflow
16. How are new development requests handled by the support team?	Edison Readiness management team reviews request. May go to the project management team for approval. Project team implements.	Steering team and project directors decide. Team implements.	Determine what level needs to decide – project or application. Funding is approved and turns into a dedicated project. Application team implements.
17. Describe post-implementation governance	All project and application decisions are sent to Edison Readiness management team where many decisions are made. Some decisions are made by the project management team.	Working towards a defined internal structure for governance which falls onto managers and leads. Larger decisions are made by the steering committees.	There is a predetermined framework at the project level and at the application level. There is a decision tree with responsibilities; many people provide input but ultimately one person is responsible for making the decision. Project level governance is all made up of state office officials.

5.3 Recommendations

Gartner recommends that the State of Tennessee, Project Edison update the support strategy. to incorporate the common industry best practices for ERP competency centers. It should also proceed to design and implement the post-implementation support organization which will optimize on-going support and enhancements of the Edison system. Examples of short term actions include:

- Develop a business application competency center to discover or develop advanced methods for system usability.
- Monitor for system workarounds or uses of shadow systems to identify usability issues.
- Get end users involved with system design changes and usability decisions.
- Have the support team engage regional/national user-groups to help identify and resolve usability issues.
- Benchmark core highly repetitive business processes to determine efficiencies issues or to identify automation opportunities. Ask end user teams to identify alternatives for increasing productivity.
- Monitor help desk logs to understand system usability issues.
- Develop customization/enhancement standards and quality review processes for all developed pages to be consistent with the delivered PeopleSoft look and feel.
- Develop user friendly and informative error messages for custom pages.
- Add help page links and content for each custom page developed as a standard practice.

6.0 Strategic Recommendations

Gartner has provided a number of recommendations throughout the body of this report as well as in Appendix A. In summary, from a strategic perspective, it is recommended that the State of Tennessee take the following actions:

1. Develop an open and transparent communication process to ensure that expectations are properly established and that all project-related information is disseminated and shared with agency personnel and management on a regular basis. Address the accountability confusions between the agencies and Edison program roles and responsibilities, while assuring clear communications. Increase agency representation at the Steering Committee level as planned. Leverage the implementation governance structure when developing post-implementation support and governance mechanisms and expect the model to evolve over time.
2. Implement FSCM for the remaining agencies as they complete their readiness preparations. Ensure that the recommended cut-over checklist is completed for each agency prior to go-live and obtain agency sign-off on all of the best practice criteria to ensure their buy-in and accountability.
3. Develop and deliver extended training on specific modules and business processes for all agencies to ensure that users are prepared to use the system on a day-to-day basis.
4. Implement the strategy for on-going post implementation governance and support. Design and implement a support organization and capability consistent with the evolving strategy.
5. Review and restate the project and business objectives to ensure consistent messaging across the State regarding the rationale for moving to the new system; reinforce key benefits and set realistic expectations with the user community and the project team members to sustain momentum for change. It is highly recommended that the State of Tennessee institutionalize a formal and continuous learning program to enhance the competencies of the project team, end users, and project resources.
6. Assign accountability for the future realization of business benefits with clear roles and responsibilities established for statewide and agency leadership.

Appendix A: CPM Framework Details

Unless otherwise stated, the following detailed findings, observations, and recommendations apply to both the HCM and FSCM components of the Edison system.

Strategy – Project and Program Strategy

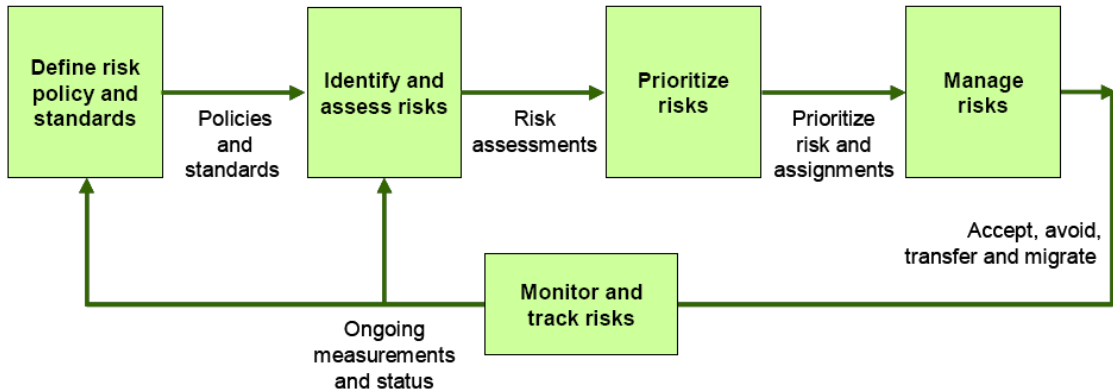
Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Is there a clearly defined Project Strategy that includes People / Process / Technology? ▪ Has the strategy been approved by senior management? ▪ Has the strategy been communicated to all stakeholders? ▪ Does the strategy include proper risk mitigation elements? ▪ Has the strategy been updated based on changing direction? 	<ul style="list-style-type: none"> ▪ There is a defined program strategy for Project Edison that addresses People, Process and Technology with solid guiding principles (e.g. Common business process adoption, COTS and Configure over Build and Customize). ▪ While the State's strategy accounted for many common project risks (costs, scope, and schedule), it did not effectively plan for mitigation of risks to organizational acceptance, organizational readiness, and business process integration at the agency level. ▪ As a result of re-planning efforts for the deployment of Wave 3 Agencies, the Edison project is actively working to mitigate these issues. ▪
Recommended Actions	
<ul style="list-style-type: none"> ▪ Assure that the re-planning efforts and execution (phased roll-out for remaining agencies) align to and deliver the strategic objectives (for Project Edison (e.g. the streamlining of business processes and improvement in productivity.) ▪ Execute the ERP program strategy in a process driven, planned, managed method that is proactive and collaborative with agency support versus date-driven, reactive approach. Continue to extend the ERP modernization effort from a technology-driven adoption approach to a user-centric ERP strategy that promotes adoption through attraction (what's in it for me/ my agency/our state/our citizens.) ▪ Continue to update the strategic plan with revised plans (e.g. phased roll-out) and updated risk avoidance/ mitigation strategies and plans. 	

Planning – Risk Management Process

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ What is the project manager's risk-management-related experience of a project of this magnitude? ▪ Is there a comprehensive risk management process in place? ▪ Do you have a team focused on external risks within the project? ▪ Do you have a process to collect and examine information potentially relevant to the project? ▪ Do you have any scenario planning activities to identify actions in the case of an unplanned event? ▪ Do you have an escalation mechanism to cope with increasing risk severity? ▪ Is there a specific person with the explicit responsibility of monitoring and managing risk? 	<ul style="list-style-type: none"> ▪ The project Director's background includes experience for a tier-one system integrator. While there are risk management processes and plans in place, some key artifacts (updated contingency plans) are missing, and the degree to which some risk management processes have been tested and exercised. ▪ Standard cost, scope, and schedule risks appear to have been effectively managed with planned contingency hours for change management and despite significant schedule deviations. ▪ There is no official or formalized IV&V role in the project that allows for independent 3rd party project monitoring for risks.

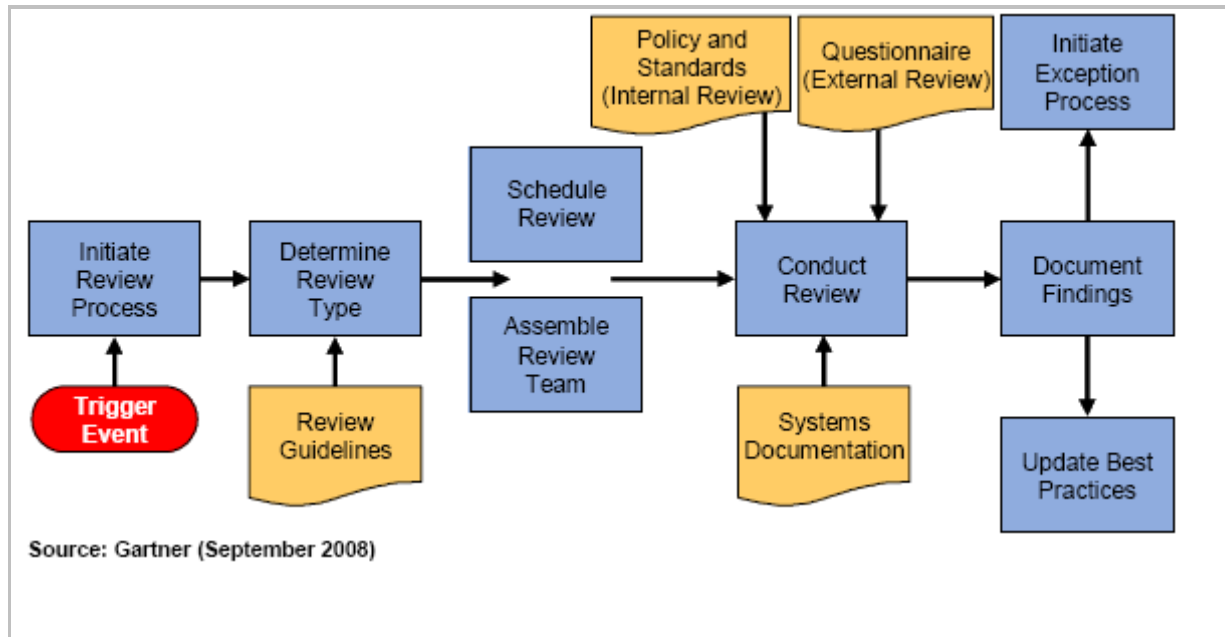
Recommended Actions

- Continue to manage risks for Project Edison in the post-implementation environment with active management of the possible and prioritized risks to the program with an ongoing cycle of periodic checkpoints (not a one-time risk assessment effort.) Risks evolve as the program and its environment changes, and risk priorities and policies evolve in response.



Source: Gartner (September 2008)

- The above proactive risk management approach is a best-practice for the project lifecycle, yet there are times when a reactive approach is warranted. A "trigger event" can be any event that would cause the risk team to initiate a review. A sample of a review process based upon a triggering event is diagrammed below:



Planning – System Rollout Planning

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Is the project manager or another senior manager individually responsible for planning the implementation / migration? (note: other can be involved, but is a single person responsible?) Does that person have the required skills and experience? ▪ Is there a reasonable, structured implementation / migration process? Are all key tasks accounted for? ▪ Have explicit success criteria been identified and documented? ▪ Does the migration plan explicitly address retiring the legacy systems? ▪ Was sufficient time allocated for the implementation / migration tasks? ▪ Are there sufficient technical resources available for the conversion / implementation? ▪ Are there sufficient business resources available for the conversion / implementation? ▪ Are there sufficient support resources available for the conversion / implementation and the corresponding temporary "spike" in support requirements? ▪ Is there contingency time, resources and 	<ul style="list-style-type: none"> ▪ There was one primary owner for the system rollout and the plan lists ownership of major sub-activities. The rollout plan and schedule seem sufficiently detailed and demonstrate proficient knowledge in this area. ▪ There is a structured process in place which covers events leading from the Go-NoGo decision to activation. The plan includes details on activities, ownership, duration, dependencies, dates/times, etc. ▪ There is no criterion within the plan which defines task execution success or the validation of steps in the plan. The plan specifically leaves success criteria up to the implementation team at execution time. ▪ There are no specific plans in the rollout planning docs for the retiring of legacy systems. ▪ There are calendars and schedules for the execution of the system rollout. All times allocated seem sufficient to complete the tasks; however there are no validation actions or time where there are downstream dependencies. ▪ Some tasks are assigned to individuals, but many are assigned to teams (e.g. Conversion team). The plan mentions that there will be an operational support team available during

<p>budget for the implementation / migration?</p>	<p>rollout.</p> <ul style="list-style-type: none"> ▪ Tasks/responsibilities for business resources just say agency in the schedule. The Agencies are also responsible for validation during rollout; it is not clear how all of this will be coordinated and the readiness plan does not address this.. ▪ There is an operational support team in place to support the rollout activities in several support areas. The specific staffing plan or estimates are not found in the rollout plan. ▪ No contingency time or resources are defined in the rollout planning.
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Recommended Actions

<ul style="list-style-type: none"> ▪ When assigning resources to specific rollout tasks, consider assigning them to specific individuals and a backup to avoid any confusion. ▪ Consider where possible, specific validation tests and/or success criteria for each task so that the expected outcome is clear for each task. ▪ Consider adding time in the plan slotted for validation testing before going onto the next task which has downstream dependencies. ▪ The agencies are responsible for validation of conversion during cutover, consider adding tasks to communicate to the agencies and having them respond back with results of their validation efforts. ▪ Consider adding daily checkpoints/milestones to the plan to communicate to the team the status of the rollout. ▪ Consider adding contingency plans that account for the possibility of a catastrophic issue during rollout. ▪ Formally document the legacy system retirement plan and integrate it within the rollout plan to ensure proper coordination of all activities. ▪ Perform an operational support resource plan for different scenarios of risk and integrate checkpoints into the rollout plan.
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Planning – Contingency Planning - FSCM

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Have you drawn up a fall-back plan in case of system failure? ▪ Do you have plans for stand-by of key support resources? ▪ Have you catalogued potential live system failures and identified action points to mitigate them? ▪ Is there a process to assess whether a contingency condition has been met and acted upon? 	<ul style="list-style-type: none"> ▪ There is a contingency plan that outlines the potential risks that could cause a change in the Go-Live date, along with options and recommendations for mitigating the high risk areas. However, the contingency plan was documented prior to Wave 1 Go-Live and has not been revised and is not periodically updated. ▪ There is no evidence that the contingency plan has been assessed/tested, particularly on the highly potential “Live” system failures.

<ul style="list-style-type: none"> ▪ Have you trained key project resources in the procedures to be used in the case of system failure? ▪ Is there a well defined contingency plan that is periodically updated? 	<ul style="list-style-type: none"> ▪ There is a cutover plan that outlines the activities leading up to the Go-Live date and 2-3 weeks post Go-Live. ▪ There is no evidence that key project resources have been trained or are up to date with the contingency plan's procedures in the case of system failures. ▪ The Edison team does have stand-by key support resources for Finance and Procurement. The support resources are chartered to provide 24x7 user and technical support.
Recommended Actions	
<ul style="list-style-type: none"> ▪ Revisit and review the Wave 1 contingency plan and ensure that the contingency plan is periodically updated. ▪ Catalogue potential Wave 3 Go-Live system failures (high risk areas) and identify action points to mitigate these risks. ▪ Train key project personnel on the Contingency Plan's policies and procedures. 	

Planning – Operations Management

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ What is the experience of the Operations Manager (OM)? ▪ Is the OM accountable for receiving the system and ensuring its success? ▪ Does the OM have sufficient knowledge and experience available in the project to employ and control the technical aspects of the infrastructure and system development environment? ▪ Does the OM have sufficient knowledge and experience available in the project to work according to the customary methods and techniques used for system development in the project? ▪ Is there a regular project review process in place? Does the OM participate in this process? ▪ Is there a project feedback mechanism to recognize and log issues? Who is responsible for addressing / triaging these issues? ▪ Has a change control process been developed? What is the OM's involvement in 	<ul style="list-style-type: none"> ▪ Operations management is not a formalized group under a specific operations manager. There are individual informal operations groups around business functions and process, workshops, and training. The managers in these areas are responsible for day-to-day activities. Change control is managed by a steering committee. ▪ Each team receives the system during rollout and manages its success as needed. There are no criteria for determining success or efficiency. ▪ Business process managers and workshop leads influence the system development by providing feedback to the core Edison team. ▪ There are project reviews taking place between phases. Managers do participate to provide feedback into current activities. ▪ Issues are directed towards project management and brought to the attention of the steering committee for review. Issues are escalated on an as needed basis based on the urgency of the issue. ▪ There is a change control process which is less

<p>this process?</p>	<p>formal and not very comprehensive for a larger ERP system. Training and help desk materials do not reflect changes to the system or environment. OM team is not always part of analysis or testing of changes.</p>
<p>Recommended Actions</p>	
<ul style="list-style-type: none"> ▪ Implement centralized operations management group with a focus on setting direction, determining control, improving quality and efficiency, and driving continuous improvement. Operations management can be responsible activities like governance, change control, communications, system stability, planning upgrades, scheduling resources, configuration management, etc ▪ Consider instituting a single OM manager with the experience to develop a long term vision and to develop a team to provide an ERP solution which meets all the agencies needs. A single top down OM team will enable the ability to develop OM accountability, goals and the necessary metrics to measure change. 	

Execute – Business Processes

<p>Assessment Criteria</p>	<p>Findings / Observations</p>
<ul style="list-style-type: none"> ▪ Is the ERP project standardizing end-to-end business processes across the enterprise? ▪ Does the ERP merely automate current and existing processes or is it establishing better or new, efficient, and innovative processes? ▪ Is the ERP delivering efficiency advantages to the State by assuring process integrity and centralized information across end-to-end processes? ▪ Does the ERP support a critical proportion of functionality within the enterprise over the threshold of a best-of-breed strategy? ▪ Have business process adoption success criteria been developed, measured and gap-bridging initiatives planned and executed? 	<ul style="list-style-type: none"> ▪ The State's Edison project has standardized many common processes across the agencies implemented to date. To the extent that a given business process incorporates multiple agencies, or departments, the new ERP manages the workflow and authorizations. ▪ The ERP system automates business processes for Financial, Procurement, and Human Resources activities. Project Edison has not yet succeeded in achieving the benefits as defined in the mission and vision statements, and the project charter. Specifically there has not been a streamlining of neither business processes nor an improvement in productivity. <ul style="list-style-type: none"> ○ Wave 1 and 2 agencies were anticipating early productivity improvements once they were fully trained and acclimated with the system ○ Participants have expressed that the new system is more labor intensive, taking 3 times or more, the effort to complete day-to-day transactions (e.g., procure-to-pay process) ▪ ERP efficiency advantages gained through process integrity and centralized information are a future benefit not yet measured. ERP implementations may take up to 3-5 years to realize productivity improvements and benefits. ▪ While the strategic intent of the ERP is to

	<p>support a critical proportion of functionality within the enterprise over the threshold of a best-of-breed, business value realization is not yet quantified.</p> <ul style="list-style-type: none"> ▪
Recommended Actions	
<ul style="list-style-type: none"> ▪ Continue the effort to streamline business processes with the ERP system, taking advantage of the knowledge and resources at the Agency level. Future enhancements, maintenance and upgrades should be considered with a system integration partner than can offer thought-leadership with regard to business process improvements. ▪ Do not “unplug” key business applications ahead of proven parallel testing and signed UAT documentation. Verify user readiness with clearly defined, best-practice based readiness criteria. ▪ Address business process adoption issues with training aimed at day- to-day business process (“how do I do my job”) training 	

Execute – Reporting and Queries

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Is there a comprehensive reporting strategy and plan? ▪ Are reporting/queries requirements clearly defined? ▪ Report/query layouts, formatting, data fields documented and signed-off? ▪ Were reports/queries clearly validated, tested and signed-off? ▪ Is there documentation on how reports/queries are to be run and what parameters to use? ▪ Is it clearly documented who has access to run or view reports? ▪ Are end users trained in developing reports/queries? 	<ul style="list-style-type: none"> ▪ There is a reporting plan, however there is no reporting strategy. Reports were developed based on legacy system reports which were in use. The process for requesting new reports is not defined. ▪ Base reports were developed in the system design phase using existing reports. Specific requirements for reporting are not in the requirements document. ▪ Agencies requested custom reports and approximately 85 custom reports were delivered. Additionally, custom queries were developed to support the agencies. ▪ Reports were tested and signed off by the Edison team. No documentation was provided indicating that agencies validated the report data, format or usability. ▪ The running of the reports is documented. However, it is unclear what parameters are required to produce reports or how to report at different levels. ▪ There is no clear documentation on who has access to what reports and data can be viewed. ▪ End users cannot create reports. End users can create queries but say they are not fully trained. The Edison team has recently dedicated a

	resource to assist and train agency staff with query development.
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Recommended Actions

- A reporting strategy needs to be developed to support all agencies. The reporting strategy need to define how agencies can use reporting to enhance there business functionality and analysis. The strategy must define report development tools, report scheduling and report modifications.
- Consider allowing agencies to define their own reports for analysis purposes to enhance productivity, analysis and usability.
- Consider alternative tools for agencies to pass in runtime parameters for controlling formatting, data retrieved and different output formats such as excel, csv, etc.
- End users should be sufficiently trained and proficient in developing ad-hoc queries to perform data analysis. End users or super users should become familiar with data dictionaries, table layouts and common queries building techniques.

Execute – Functionality - FSCM

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Has any custom functionality been developed for the system? ▪ Was there analysis done to demonstrate the business need for this customization? ▪ For custom functionality, was there an analysis carried out to check if this functionality might have implications for the future functionality of the system? ▪ Can the custom functionality be reversed out or modified easily if this becomes necessary? ▪ Is there a plan to phase out this custom functionality in the future for standard functionality? ▪ Is the custom functionality documented fully? ▪ Is access to resources needed to modify custom functionality easily available? 	<ul style="list-style-type: none"> ▪ There has minimal customization, mostly for third party interfaces (e.g., cashiering system), reports. Report development essentially replicated legacy reports. Not all of reporting needs have been addressed and data extraction and information harvesting is somewhat cumbersome. ▪ While the purchase requisition and purchase order processes has been significantly automated, some users find Edison relatively cumbersome and time consuming. ▪ There is a project governance process in place for ensuring that each required element of customization and modification is necessary and justified. ▪ The Edison team is continuing to build common Statewide policies and procedures – e.g., finance and procurement. This will take some time to complete, but should reduce the number of process variants that must be supported in the financial and procurement modules.
Recommended Actions	

- Implement clear process for evaluating potential customizations and/or future configuration and modification needs. If the IT request is not included in the existing budget, it should go through an IT governance process and require approval of project Sponsor and project budget should be adjusted to reflect the increased cost.
- Accelerate effort to develop Statewide policies and procedures.

Execute – Organization Change Management & Readiness

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Is there a committed change management executive lead? ▪ Does the change management executive lead have sufficient knowledge and experience available in the project to guide the change processes? ▪ Is there an effective change management process in place? ▪ Is there a process in place to review and record change requests? ▪ Does the change management team and project team fully understand change methodology? ▪ Is the communication program defined early and is the process initiated with management? ▪ Are there key personnel (change champions) identified from each affected area? ▪ Have senior management made themselves available to the user base to explain the changes and why they are needed? ▪ Are there user groups or user committees in place to inform the user base of the required changes early? ▪ Does communication both about and within the project provides those involved with a proper idea of the nature of the project and what the realistic expectations are? ▪ Is management convinced of the necessity of the change? ▪ Is there any expected resistance to the project's implementation from the organization? ▪ What is the organization's cultural readiness for a project of this magnitude and nature? 	<ul style="list-style-type: none"> ▪ There is a committed Enterprise Readiness (ER) Manager leading the effort but no Executive providing oversight/advisory. ▪ The project lacked a well-defined burning platform for change. There is no evidence that the appropriate climate for change was established early on and through the lifecycle of the implementation. ▪ An Enterprise Readiness Manager has been assigned and responsibilities are documented in Edison's Project Charter. These responsibilities include all the elements that Gartner would recommend except responsibility to resolve issues related to end user support and help desk practices. ▪ Most of the ERP implementation team was comprised of experienced staff from the State and junior resources hired out of local universities. Although junior-level resources participated in hands-on training sessions, these junior resources did not have adequate organization change management and large ERP implementation experience. ▪ Part of the ERP strategy was to identify key personnel (referred as ACEs) from each local Agency to be primary ERP liaisons during implementation. It appears that the ACEs were given a high degree of responsibility around communications, training, and other key messaging activities. Findings suggest that not all ACEs performed these responsibilities adequately. Per some participants, some ACEs did not provide effective communications and sufficient leadership throughout the implementation lifecycle. ▪ The organizational change management risks appear to be high. Agencies previously operated autonomously and were supported by legacy systems. Key stakeholders reported that there was significant resistance to implementing

	<p>the Edison system in many Agencies.</p> <ul style="list-style-type: none"> ▪ The communications process was insufficient and system users reported that they felt that the system was more or less pushed onto them. ▪ It appears that some of the Agency’s executive communications did not succeed in explaining the changes and why they are needed in their agencies. There was insufficient support and involvement at some Agencies. ▪ Some business processes adoption issues have been identified, and early analysis shows training deficits. While most end users have been exposed to system navigation level training, many do not understand how to use the ERP to fulfill their daily job responsibilities. The Edison team has developed revised training plans to initiate “workshops” aimed at resolving these types of training deficits.
Recommended Actions	
<ul style="list-style-type: none"> ▪ Perform a Leadership alignment assessment workshop to establish an adequate level of Agency sponsorship and alignment to continue to secure resources needed to drive change. ▪ Obtain buy-in from Leadership to perform a Change Readiness Assessment program and identify the specific deliverables that will be provided to offset change management risks and ensure consistent messaging regarding the rationale for moving to the new system. This program would help re-establish the climate for change and redefine the burning platform for change. The program reinforces key benefits to the user community to keep sustaining change – “What’s in it for me?” The program can help increase greater employee satisfaction and performance. 	

Execute – System Specification / Design and Usability

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Have user requirements been clearly defined and documented? ▪ Have functional specifications been clearly defined and documented? ▪ Have technical specifications been clearly defined and documented? ▪ Have detailed designs been clearly defined and documented? ▪ Was there coordination in the development of the above four types of specifications? ▪ Has integration with other systems (and processes) been properly planned and accounted for? ▪ Are business analysts closely involved with 	<ul style="list-style-type: none"> ▪ There are 4000+ requirements defined for the new ERP system in total. Requirements are documented in adequate detail and are non-agency specific. ▪ Functional specifications are defined in the requirements document. In addition, fit/gap analysis and standardized business process flow diagrams were created. Impact analysis was done on processes or functionality where gaps were identified. ▪ Technical specifications are included the requirements document. Technical requirements center around data and module integration. ▪ Detailed designs in the form of business

<p>the development team in the development process?</p> <ul style="list-style-type: none"> ▪ Did the design extend beyond one functional area? ▪ Were all potentially impacted people involved? ▪ Did the design receive signoff from all geographies and business units affected? ▪ Was a gap analysis performed to reconcile system capabilities with the business requirements? ▪ Was a process initiated to resolve the differences between system capabilities and business requirements? 	<p>process flow diagrams were created for all major processes.</p> <ul style="list-style-type: none"> ▪ The designs were conducted by the core Edison teams including the ER and ACE's. ▪ There were requirements developed for the integration with other systems. Design documents were unavailable. ▪ There was participation in the development by representatives of the agencies. However, the specific agency business analyst involvement documentation is not available. ▪ Design documents are unavailable to determine the functional design extension. ▪ It is difficult to determine what people were involved in any activity as only roles were used in the available documentation. ▪ The design did not have signoff from individual agencies. ▪ A gap analysis was performed on the delivered system functionality against the requirements. There is no evidence that design options were considered and vetted in conference room pilots. ▪ Gaps in business requirements were identified and closed. No evidence that the options were vetted with agencies.
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Recommended Actions

<ul style="list-style-type: none"> ▪ When performing a fit/gap analysis; process and design options should be documented and also approved by the functional teams. More specifically, agencies/end users should participate in the sessions to acknowledge that solutions are functionally acceptable. ▪ Configuration management and setup design decisions should be documented including reasons for choices made and why alternatives were not chosen. Document whom made what decisions on what dates and the rationale behind the decisions made. ▪ Conduct conference room pilots to demonstrate planned functionality and to select design alternatives where necessary. The sessions should be fully documented and signed-off.
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Execute – System Testing: Functional, System, Integration, Performance, and User Testing - FSCM

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Does testing strategy account for all types of testing (unit, functional, integration, system/performance, user acceptance) in a logical sequence? 	<ul style="list-style-type: none"> ▪ The full range of standard testing types were planned in a logical order ▪ There were high-level testing entry and exit criteria defined, but no documentation found of

<ul style="list-style-type: none"> ▪ Are there sufficient testing entry and exit criteria, and were they met? ▪ Is sufficient time provided for testing? ▪ Is sufficient time (and resources) provided to correct errors found during testing? ▪ Are testing experts available to the various test teams? ▪ Are appropriate tools and processes in place for overall testing? ▪ Have you built a complete set of test cases and expected results to ensure unit test success? ▪ Is there a "post-mortem" process for test phase to determine lessons learned, improve processes, etc.? 	<p>whether the criteria was actually validated/met.</p> <ul style="list-style-type: none"> ▪ Test script logs indicate that testing took a shorter time than normal to perform for a rollout of this magnitude. ▪ There is no evidence of how testing defects were managed or resolved. There are some logs of the defects – but not the resolution of the errors, nor the root cause analysis, or any regression testing which should have been done. ▪ There were SME's involved with the testing – not sure of their testing expertise. Gaps in the test plan/strategy indicate there was a lack of testing expertise involved with the process. ▪ Testing was strictly a manual effort for all the test types. The testing process was not very comprehensive, nor well documented for a major ERP implementation. ▪ There is a good deal of test cases that tests standard business functionality. The test cases describe at a high-level the process to be tested, no other information is given. It was up to the person performing the test to determine what needed to be done, and the values to use. UAT testing was not end-to-end testing. ▪ No evidence of a testing post mortem after any of the test types.
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Recommended Actions

- Consider end-to-end testing for UAT to not only test business functions, but the system/module integration as well.
- Consider in the testing design and strategy – negative/exception testing, data boundary testing, security role testing, and data/edit validation testing.
- Perform stress and performance testing to validate system response times, scalability and tuning opportunities.
- Perform and document root cause analysis on all defects during issue resolution. Also, consider implementing a regression testing strategy plan for all major defects.
- Consider a complete testing tracking process for all tests which identifies specific testing steps, data values used, expected and actual test outcomes.
- Consider UAT testing should be solely performed by end users of the system with appropriate sign-offs for each test performed.
- Special test cases should be performed for all workarounds and customizations to ensure desired outcomes.
- Consider building a knowledge base of testing defects and their resolutions for the help desk, and consider how workarounds can be integrated into training material.

Execute – Rollout and Deployment (End User)

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Have you developed implementation / migration checklists? ▪ Are implementation / migration tests being systematically executed and verified? ▪ Is there a process to roll-back the migration if there are problems? ▪ Is the enterprise wide implementation / migration effort being strongly coordinated? ▪ Are success criteria for the implementation / migration explicitly tested and verified? 	<ul style="list-style-type: none"> ▪ An implementation migration plan was developed for the project team; however no central checklists were developed for the agencies. The agency liaisons provided guidance during rollout as necessary on an ad-hoc basis. ▪ There is no documentation of specific migration test being performed by each agency during rollout. ▪ There is a contingency plan in place if certain business functionality does not work after implementation; however there are no plans for a systemic rollback if that event became necessary. ▪ The implementation plan is detailed and coordinated for the Edison implementation team, but it is less clear how the plan was coordinated or executed from the end user perspective. Agency responsibilities were to validate data during conversion processes; however many of the agencies did not have specific plans to work from or tests to perform. ▪ It was up to the agencies and the agency liaisons to define their own success criteria, however there is no project documentation of what criteria was used.
Recommended Actions	
<ul style="list-style-type: none"> ▪ Consider specific checklists beforehand for the agencies to follow during migration and rollout of the system. Many of these checklist items can be standardized across agencies. These checklists should include items such as identification of specific activities, timeframes to perform, input/outputs, dependencies, and expected results. These plans should be in place and rehearsed prior to the actual cutover so that the process is exactly repeatable, inclusive of actions needing to be done, and ample time is allowed to perform such actions. ▪ The project implementation team should have a comprehensive integrated checklist for all agencies in order to have a macro view of the plan. The checklist should be sufficient enough to not allow room for error or unnecessary risk. The migration checklist should also be very specific as to the actions to be taken if the desired results are not achieved. The rollout strategy for the end users should also include specific guidance for parallel data entry and on the retirement of legacy systems. ▪ Consider risk mitigation and a comprehensive contingency plan for the agencies in the event that the implementation does not rollout as planned. ▪ Conduct lessons learned workshops after each rollout to refine the rollout plan, checklists and activities for subsequent phases. 	

Execute – End User Training

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Has a training program been set up early in the project? ▪ Have users a facility to “test run” functionality in the system prior to go-live? ▪ Have procedural manuals been created to give a step-by-step guide to staff? ▪ Have you a process to verify that users have adequate training in the new system—i.e., tests, questionnaires? ▪ Have you planned a verification process to ensure that users follow the expected process upon go-live? ▪ Is the training focused on the "process", instead of the software? ▪ If it emerges that there is a lack of knowledge of a given field in the project, does the project management responds adequately with education, training and the deployment of workers with specific knowledge, and so forth? 	<ul style="list-style-type: none"> ▪ A train-the-trainer approach was used for Edison and the training appeared to be insufficient. End-to-end process and targeted training was not part of the scope. Instead, the training program mostly focused on system navigation and delivered functionality. In result, the user community were not fully equipped and trained to conduct their day-to-day transactions in the new system. ▪ According to participants, there is limited confidence in the new system to conduct required daily system dependent business activities. Although Edison procedural manuals were created, these manuals were considered to be unsatisfactory since these were not geared to individual Agency’s business processes. ▪ There were a wide range of non-Edison training offered to the user base. However, it appears that skills assessments were not performed early on – e.g., some users did not have basic computer skills or knowledgeable of web-based systems prior to having been trained in Edison. ▪ Training is a key challenge due to complexity of PeopleSoft relative to most existing legacy systems and decentralized nature of the State. ▪ Not all Agencies users attended training. Often, many users saw training as optional versus mandatory. ▪ Not all Agencies developed their own policies and procedures (process and systems manuals) were. Some Agencies took the plunge approach and creatively developed their own training and procedural materials. ▪ Training workshops for FSCM and HCM were provided by the Edison team. Some aspects of these training workshops were considered successful. A number of improvement recommendations were identified and documented in lessons learned documents (e.g., tailor the training approach).
<p>Recommended Actions</p>	

- Enhance existing training by introducing business process-centric and agency targeted training.
- Make Edison-related training “Mandatory” and ensure that the right users are trained at the right time.
- Continue to provide training for users that are not yet comfortable with web-based technologies – e.g., *Computer Skills for Beginners*.
- Increase the number of training workshops post Go-Live to ensure the user community is receiving an adequate level of training support.

Manage – Project End-Phase, Project Governance and Maintenance

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Has a management resource been identified to manage support issues post-go live? ▪ Is the functional and technical documentation for the system / package adequate (up-to-date and sufficiently accessible) for continued use? ▪ Is the system / package is maintainable (e.g., with regard to structuring, application of standards, availability of test data, etc.)? ▪ Is there a formal process for communicating to customers? 	<ul style="list-style-type: none"> ▪ The Edison Project Director is responsible to lead the support of post-go live activities. The project Director will continue to coordinate the stakeholder and supporting organizations. ▪ The functional and technical documentation exists, but needs to be updated as feedback from the end users demonstrates frustration with out-of-sync manuals and documentation. Governance structure/strategy documents are not updated for post-implementation support. ▪ Gartner has concerns about Edison’s ability to maintain the package after completion of the phased roll-outs. The lack of previous experience in maintaining systems of this scope and magnitude for this team drives this concern. ▪ There is no concrete evidence that a formal Support Strategy exists. In the Post-implementation Support workshop, the discovery of missing key and critical elements (e.g. formalized SLAs, help desk support strategies, etc.) drove concerns about Edison’s capabilities to provide sufficient maintenance and support post “go-live.” Gartner has identified several communication artifacts and processes, but they appear dated, and un-refreshed, and do not formally address post implementation support. There is a desire to add more agency representation to the Steering Committee to facilitate communication and decision making among the end user constituents.
Recommended Actions	

- Refresh the formal post-implementation Strategy that addresses the critical areas of support and maintenance of the Edison System. Consider a 3-5 year time horizon for planning in the strategy that addresses people, processes, and technology issues. Key components such as SLA's are the flip-side to chargeback models that enable end users/customers to justify payment for services and assure performance and timely responses.
- Consider additional, experienced augmentation to the team that can guide Edison through Post-Implementation Support.
- Address the accountability confusions between the agencies and Edison program roles and responsibilities, while assuring clear communications of same.
- Increase agency representation at the Steering Committee level per plans.

Manage – IT Operational Support

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Have you identified the support team once the system goes live? ▪ Does support cover helpdesk? ▪ Does support cover operations? ▪ Does support cover incident management & training? ▪ Does support cover change requests, and additional development? ▪ Have you involved support resources early in the project? ▪ Have you incorporated a work stream to develop and test the support process? ▪ Do you have a handover plan in place? Are all parties involved aware of it? ▪ Have you implemented SLAs for the support staff? 	<ul style="list-style-type: none"> ▪ The Edison team recruited additional back-up resources to provide end user, help desk, and overall operational support, post Go-Live. However, there is no evidence as to whether or not the State will have adequate operational support structure for existing user support needs, and on an ongoing basis. Some Agencies have expressed a level of frustration with the existing response times from the help desk and end user support. ▪ There is no evidence of a formal process in place to effectively manage incident management and additional training & development. ▪ There is no evidence of a formal process in place to cover change requests and additional development. ▪ There is no evidence of a formal handover plan in place. ▪ There are no Service Level Agreements (SLAs) implemented for the support staff, post Go-Live. The Edison team has anticipated this requirement and plans to develop and implement formal SLAs.
Recommended Actions	
<ul style="list-style-type: none"> ▪ Define and establish appropriate SLAs for ongoing IT Operational Support. To be effective, training and support organizations need to be treated as subcontractors; therefore, it is recommended that these negotiate specific SLAs. ▪ Establish a business application competence center (BACC) that integrates the IT department's traditional application support services with three key business-led services: super users, business process analysts (BPAs) and application change control (Gartner). ▪ Structure the BACC to include a production support center to handle ongoing operations (run) and 	

a business process support center (this may also be called a center of excellence) to handle system enhancements and improvements (build) (Gartner).

Manage – Operations Resources

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Are the resources experienced in projects of this complexity and type? ▪ Did resources receive significant training on the project? ▪ Are the resources experienced in the client industry? ▪ Is resource dedication clearly and appropriately defined? ▪ Is the staff required for the project available at all levels? ▪ Are the staffing levels for the various parts of the project organization in line with the characteristics of the project? ▪ Are all those involved in the project sufficiently aware of the project objectives? ▪ Does formal and/or informal training exist to enhance the competencies of the project team / project resources? 	<ul style="list-style-type: none"> ▪ It appears that the Edison operations resources are experienced in projects of this complexity and type. The operations team is comprised of resources from the State of Tennessee, MAXIMUS, and STA. ▪ Both MAXIMUS and STA have extensive system integration and implementation experience within the Public Sector (State and Local Government) industry. ▪ Per the Project Charter, it appears that resource dedication are clearly and appropriately defined and executed. ▪ It appears that staffing levels for the various parts of the project Edison are not in line with the characteristics and demands of the project. There is no evidence as to whether or not the State will have adequate operational support structure for existing user support needs, and on an ongoing basis. ▪ Although the project team is fully committed and eager to complete the project successfully, there is insufficient awareness of the project objectives. ▪ There is no evidence of a formal/informal training program to enhance the competencies of the project team, end users, and project resources.
Recommended Actions	
<ul style="list-style-type: none"> ▪ Review and restate the project and business objectives to ensure consistent messaging across the State regarding the rationale for moving to the new system; reinforce key benefits to the user community and the project team members to keep sustaining change. ▪ Institutionalize a formal and continuous learning program to enhance the competencies of the project team, end users, and project resources. 	

Manage – Operational Scope Management

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Is the scope of the project clearly defined? ▪ Is there a process in place to ensure that the original scope is maintained unless there are objective reasons for amending it? ▪ Have the scope and deliverables of the project been communicated to the management team? ▪ Does the management team understand the impact of changing specifications through the project? ▪ Is there an effective mechanism to implement new changes in place on the project? ▪ Is there effective sponsorship for the solution based on its scope? 	<ul style="list-style-type: none"> ▪ Scope of Edison ERP project is clearly defined for the three primary areas of human resources, procurement, and financials/accounting across all state agencies. ▪ The Edison governance process begins with a request to the Project Office, up through to the Steering Committee with studied implications, alternatives and recommendations. This is the formal process for maintaining scope and change. There are exception criteria and management processes. ▪ Management clearly understands the impact of changing specifications. ▪ The current governance structure is used for managing changes to the project.
Recommended Actions	
<ul style="list-style-type: none"> ▪ Leverage the implementation governance structure when developing post-implementation support and governance mechanisms and expect the model to evolve over time. ▪ Continue the move from a centralized authority “pushing” adoption upon agencies to a partnership model that promotes agency “pull” adoption of Edison, communicating the “What’s in it for me” answer? 	

Manage – Business Value Management

Assessment Criteria	Findings / Observations
<ul style="list-style-type: none"> ▪ Is the project still focused on the full scope of original specifications at the outset of the project? ▪ If there has been a de-scoping exercise, what were the criteria used to make the de-scoping decision? ▪ What processes are in place to ensure the solution design maintains alignment with the business case? How is that alignment measured? ▪ What was the level of involvement from the business in making scoping / de-scoping decision(s)? ▪ At the end of each lifecycle phase, are key deliverables and project performance 	<ul style="list-style-type: none"> ▪ The project is still focused on the full scope, but the execution plan had been revised to account for a manageable pace of change management, support and agency adoption. ▪ In lieu of de-scoping, rescheduling was adopted at various stages, and the breadth of implementation was reduced/phased to limit the number of agencies targeted for go-live at any one time. ▪ Business Value delivery assurance has not yet been identified by Gartner. There are implicit beliefs that the ERP will deliver value but tracking of specific benefits has not been identified. In fact, end users report a significant loss in productivity in day-to-day task execution due to poor business processes or inadequate

reviewed to determine if the project should continue into its next phase, and to detect and correct errors cost effectively?

training.

- End user involvement (agency) on initial scoping/de-scoping activities was not investigated. On future scope and de-scoping, the process will follow the governance process of starting at the Project office, being commented on by the Edison team as to effort, alternatives, impact, etc and then promoted to the Steering Committee for a decision.
- Readiness documentation has recently been updated and refreshed because prior entrance and exit criteria for Agency cut-over did not appear to be effectively managed.

Recommended Actions

- Develop pragmatic and business-based value measures (compliance and performance metrics.)Expand ERP measurement systems beyond traditional IT acquisition and support measurements. Provide businesses with a total view of ERP value by adding metrics that are related to specific business processes. Business metrics should measure improvements in the organization's ability to predict and prescribe answers to business problems.
- Work with the agencies and departments to develop metrics that indicate ERP's contribution to the State. These should not replace the traditional IT-centric systems operations metrics, but should provide an additional view of overall ERP value.
- Defined and measurable business benefits that will be realized as a result of the implementation of the project should be documented and tracked with benchmarks of current and post implementation measurements. Benefits should include:
 - Improved and efficient end-to-end process integrity
 - Improved data quality and consistency across the enterprise
 - Reduced support costs through consolidation of skills and systems
- Confirm that the enterprise is engaging in best practices and compliance mandates through its assurance of process conformity
- Focus on tangible (and measurable) process improvements to finance, accounting, budgeting, purchasing, payroll and so on in terms of timeliness, cost, quality, productivity and customer satisfaction. Communicate the performance metrics in a way that is meaningful to the business.

Appendix B: Data Gathering Sources

Table 6: Key Stakeholders

Workshops / Meetings
<ul style="list-style-type: none"> ▪ FSCM Wave 1, 2 Outreach Meetings ▪ FSCM Wave 3 Readiness Status Meetings ▪ Purchasing Workshop: Complete Contract Process
State of Tennessee Agencies
<ul style="list-style-type: none"> ▪ Comptroller, State Audit Office ▪ Finance and Administration ▪ General Services ▪ Department of Transportation ▪ Department of Revenue ▪ Department of Wildlife ▪ Education Office of Federal Programs ▪ Office of Business and Finance ▪ Department of Treasury ▪ State Chief of Accounts ▪ Agriculture Fiscal Office ▪ Military Department ▪ Bond Finance ▪ Department of Finance ▪ Tennessee Commission on Aging and Disability
Edison Project Team
<ul style="list-style-type: none"> ▪ Project Director ▪ Assistant Project Director ▪ Enterprise Readiness Manager ▪ Logistics & Procurement ERP Manager ▪ Financials Manager ▪ Human Resources Manager ▪ Training Manager ▪ Technical Manager ▪ Help Desk Manager ▪ Benefits Manager

Other
<ul style="list-style-type: none"> ▪ Salvaggio, Teal and Associates (STA)

Per the table below, Gartner collected and reviewed the following documentation and artifacts of the Edison implementation project.

Edison Project Artifacts	
<ul style="list-style-type: none"> ▪ ERP Request for Proposal (RFP) ▪ ERP Requirements (Functional) ▪ ERP Business Case ▪ Project Charter ▪ Master Project Work plan ▪ Weekly Status Reports (2009) ▪ Training Analysis, Design & Prototype ▪ Training Plan (End User & Project Team) ▪ Edison Risk Management Plan ▪ Project Issues & Risk Logs ▪ Issue Resolution Plan ▪ Quality Management Plan ▪ Production Cut-over Plan ▪ Unit Testing Plan ▪ System & Integration Testing Plan ▪ Help Desk Plan 	<ul style="list-style-type: none"> ▪ UAT Plan ▪ Production System Testing Plan ▪ Acceptance Testing Complete ▪ Go-Live Decision ▪ Implementation Contingency Plan ▪ Business Readiness Plan ▪ Business Process Diagrams ▪ Communications Plan ▪ Change Management Plan ▪ Lessons Learned Presentations ▪ Wave 3 Roll-out Plan ▪ Wave 3 Agency Readiness ▪ Wave 3 Production Cut-over Schedule ▪ Comptroller's Survey Results / Artifacts ▪ Miscellaneous

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