Internal Travel System (ITS) – Interim Group Report

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| Course | ITEC 640 – Information Technology Project Management |
| Document | Group Project: Assignment #2 |
| Semester | Spring 2020 |
| Group # | 4 |

## Roles and Assignments

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| --- | --- | --- | --- |
| Team Member Name | Assigned Section | Internal Due Date | Estimated Hours |
| Brittany Kircher | Section 1 | 03/05/2020 | 10 |
| Debashis Jena | Section 2.1 - 2.5 | 03/05/2020 | 10 |
| Eugene Kim | Section 2.6 - 2.8 | 03/05/2020 | 10 |
| Didimus Kimbi | Section 2.9 - 2.11 | 03/05/2020 | 10 |

## Schedule

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| Deliverable | Due Date |
| Initial Draft | 3/15/2020 |
| Initial Draft Review | 3/17/2020 |
| Final Draft | 3/22/2020 |
| Final Draft Review | 3/24/2020 |
| Submission | 3/29/2020 |

# Introduction

# Project Description

Silver Springs, LLC will embark on a journey to build an enterprise-wide centralized travel system to modernize its infrastructure, reduce overhead and travel costs, and create standard operating procedures. One modernization project that was conducted a year ago, the implementation of the enterprise-wide Office 365, has already proven to reduce overhead costs, standardize practices and procedures, and create interoperability within the company. Silver Springs, LLC will capitalize on this past success to build a next-generation travel system that will meet the organization’s needs for a secure, high-performing environment. The travel system will be implemented within the company by using Agile methodologies over the project lifecycle, which will enable the team to capture user stories and implement first-class technological solutions (Project Management Institute -b, 2017, p. 16).

# Project Scope

# Project In-Scope Activities

The internal travel system (ITS) will be built leveraging the newest Cloud technology. In-scope activities will include project management, design, validation, testing, and deployment. The end service intends to support business roles and functions for internal stakeholders. Activities in-scope focus on the necessary components required for a system build and maintaining scope over the course of the project’s lifecycle; each project artifact is tailored for ensuring effective management of project activities (Project Management Institute, 2017 –a, p. 558).

# Project Out-of-Scope Activities

Out-of-scope activities for the ITS are activities that are included in other projects. ITS will not address these activities as they are products to be completed by other functional areas.

* Negotiating contracts for third-party usage within the ITS.
* End-user training once the system is in operation and maintenance.
* Reports for business best practices. While the ITS is built on the foundation of streamlining processes and saving costs, other projects will produce products intended to serve as guidelines.

1.2.3. Project Dependencies

The ITS project objectives are to provide an integrated, enterprise-wide system to be used by all internal stakeholders. The system will provide the company with the tools and resources needed to standardize, interoperate, and create best practices and procedures.

* Reduce duplication of efforts by providing a centralized system for all travel processing.
* Manage and secure information and data sets in a cost-effective manner.
* Provide access to functional areas to onboard employees, produce reports, etc.

# Success Criteria

The following are the minimum project success criteria to be considered an organizational enabler (Project Management Institute, 2018, p. 4)

* Delivered according to the approved schedule, within budget, and with specified features and functions.
* Current employees have been onboarded in the system.
* Multiple active users can access information, run analytics and reports, and consume data as needed.
* ITS services are highly available and reliable to provide stability to the enterprise.
* The use of ITS reduces overall operating costs for the company.

# Project Assumptions

Significant assumptions identified by the team are:

* Third-party data will always be available for display within the user interface.
* Administrative records will be delivered to ITS for implementation into the system.
* Some modifications to information to administrative records such as user address, name, or phone number will be necessary to standardize data.

# Project Dependencies

Significant project dependencies identified by the team are:

* Acquisition of needed software and data.
* Identification and application of third-party software for booking flights, cars, hotels.
* Resources for internal stakeholders. The accounting team must have time to dedicate to producing a workflow and charge codes for invoicing and payments.

# Project Constraints

Significant project constraints identified by the team are:

* The project is constrained by the timeline for implementation before overhead costs for the company are overrun.
* The project is constrained by project and staff resources for internal stakeholders. The availability of these staff is critical for components of the system to be complete and accurate.

# Managerial Plan

# Schedule Management Plan

* Milestone List and Activity List
* Milestones
* Dependencies

ITS is a midsize project with many components and potential third-party integrations. The project plan and estimation will be somewhat complex. The basis of the project plan can be done with a bottom-up approach with a work break down structure.

# Work Breakdown Structure (WBS)

As the inception phase of the project is complete, the system architecture is created in the elaboration phase. Highly experienced developers and enterprise architects will get together to create the architecture of the application. Based on the architecture, the entire project requirement can be broken down into multiple submodules. The following figure shows activities and efforts for each of the development phases.

A screenshot of a cell phone

Description automatically generated

# Basis of Estimates

As mentioned above, the bottom-up approach enables estimation of each of the low-level efforts first, which will eventually aggregate to calculate the final project estimate. Therefore, creating the WBS upfront helps in estimating each of the modules. For example, in the above WBS, the system design phase consists of Architecture, system design, functional design, and test creation. "Design" as a whole, is a large activity and hard to estimate without a WBS. In this case, as each of the modules is estimated separately, that will constitute the phase level estimate. Similarly, as other phase level estimates are calculated the final project level estimate will be calculated.

# Project Effort Estimation

The estimation is typically calculated with a man-hour unit. As mentioned above, the man-hour estimates will be gathered for each of the modules and then the final project estimates will be given with man-hour or man-days unit. As there is a time constraint, the project must have a plan to increase or decrease the number of resources and staff as required. It is highly recommended to have some buffer time for each of the module completion (Misutka, 2017). The ITS project will also utilize organizational process assets and lessons learned from previous projects to assist with project estimates.

# Quality Assurance Plan

ITS development project will be based on a combination of business and test-driven framework. The goal is to fulfill the customer requirements, therefore validation of the same is important. The acceptance criteria are assessed during this phase of the project.

# Approach

Validation can be done during each phase of the development process.

* Unit tests will be created to validate each of the modules and submodules.
* Integration tests will be done to verify the connections and other integration points.
* System tests may be performed by a dedicated Quality Assurance team and will be followed by the user acceptance testing done by a group of the end-user.

# Activities

The major activities that may be performed during the QA phase are as follows.

* The test cases will be extracted from the requirement and converted to executable steps and test data.
* Both functional and nonfunctional tests will be performed to ensure the overall quality of the end product. Functional tests may cover the requirement validation, whereas nonfunctional testing is to tune the performance of the application.

# Project Change Management Plan

# Change Management Guidelines

* Request
  + Project
    - Project change Requests will go through the project manager and will be evaluated as necessary
    - Necessary changes are those that are required by the project to function. These can include policy updates or technical blockers
    - Changes that are improvements to user experience or functional improvement will not be considered but will be documented in the project closeout plan
  + Schedule
    - Schedule changes will be addressed to the project manager and any relevant stakeholders
    - An online calendar will be used to track PTO, holidays, and any absences
    - Pending no change in the overall scope of the project, there will be no effect.
    - Failure to notify schedule changes may result in the delay of project deliverables
  + Requirements
    - Requirement changes must be addressed to the project manager before implementation.
    - Requirements requests will be reviewed as necessary or improvements by technical leads
    - Requirements will be sized and prioritized accordingly by the technical leads
* Approval
  + Project
    - Project change approvals must be made by the project sponsor and documentation must be sent out to the project team for visibility and transparency
  + Schedule
    - Schedule approvals will be made by the project manager pending no change to the overall project delivery date
    - If a delivery date is affected, the project sponsor will also need to approve
  + Requirements
    - Same guidelines as project change approvals
* Implementation
  + Approved changes will be implemented in parallel to other work if possible. If the work is in the critical path of the project, it will be prioritized as soon as possible.
* Tracking
  + All changes will be documented and shared out to at least the project manager and sponsor as well as any other stakeholders.
  + Project Changes must be sent out to the entire project team
  + Schedule Changes will be sent out to the project manager, sponsor, and technical leads
  + Requirements changes will be sent out to the project manager, sponsor, and relevant stakeholders involved with the requirement.

# Individual Roles and Responsibilities

* Project Manager: Handles scheduling and delivery of the project. Keeps track of project deadlines, milestones, and changes. Liaison between technical leads and project sponsors.
* Technical Development Leads: Handles sizing and development of project deliverables. Technical leads will design the overall system and determine how long it will take to develop each module.
* Project Sponsor: Handles the management and organization of the project. Ensures that project changes are in line with the project requirements and goals.
* Other groups (Procurement, HR, etc.): Other groups and stakeholders may be necessary to work with depending on the changes. They should respond in a timely manner regarding any changes to the project

# Project Closeout Plan

Staff Reassignment

* Contractors and staff on the project will be maintained to ensure ease of transition and future maintenance and upgrades on the system

Archiving of Project Materials

* Project materials and documentation will exist on Confluence, an online wiki tool, and SharePoint, a cloud document storage system for reference and review.

Metrics Recording

* After project completion, final metrics and project evaluation will be collected and provided to the project sponsor.

Tracking Lessons Learned

* Painpoints and lessons will be documented throughout the project cycle and collected
* Feedback from the project team will be requested on their experience throughout the project cycle.
* All of these data points will be summarized and collected in a document to be shared on Confluence and stored on Sharepoint

Project Closeout Report

* The project closeout report will include a review of the final requirements, an overview of the developed system, final metrics for success, pain points, lessons learned, and a transition guide
* The report will be shared with the project sponsor and stored on Sharepoint

Transitioning

* Members of the project team will remain in the company to provide future maintenance and improvements to the system.
* If a major upgrade or change is needed, a new project team will come to gather requirements and develop a new system.

# Project Execution Deliverables

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| **Deliverable** | **Acceptance Criteria** | **Who Reviews (R) or Accepts (A)** |
| Architecture Design Document | Stakeholders approve of architecture design. | Technical Lead  Project Sponsor |
| Procurement of development environments and tools | Developers have access to development, test, and production environments and have the necessary tools to accomplish a job. | Finance |
| ITS Main Module Code | Documentation and code available in the code repository | Technical Lead |
| Reservation Module Code | Documentation and code available in the code repository | Technical Lead |
| Payroll System Code | Documentation and code available in the code repository | Technical Lead |
| Other Backend Service code | Documentation and code available in the code repository | Technical Lead |
| Frontend Code | Documentation and code available in the code repository | Technical Lead |
| Deploy to QA environment | QA Environment stood up  Services deployed for QA testing | Technical Lead |
| Initial QA Test Plan | QA Test Plan created and implemented  Any resulting bugs or changes fixed | Technical Lead |
| User Acceptance Test Plan | User Acceptance Test plan created and implemented  Feedback incorporated into the application | Developers  Project Sponsor |
| Deploy to PROD environment | PROD environment stood up  Services deployed to PROD | Project Sponsor |
| Training Manual | Training Documentation available to stakeholders for review | Project Sponsor |
| Maintenance and Transition Plan | Maintenance and Transition Report available to stakeholders for future releases and improvements | Technical Lead  Project Sponsor |

# Risk and Issue Management Plan

Risk management is structured into phases to assess risks depending on the phase on the project. A risk checklist from similar projects will serve as a baseline of potential risk. The project sponsor and technical leads will identify risks that are specific to the ITS project. As a best practice, at every phase of the project, the checklist of risks is updated and evaluated (Project Management Institute, 2019, p. 28).

* Initiation
  + Brainstorming unknown potential risks
  + Risks to choosing the design of the project
  + Assign low and high risks
* Planning Phase
  + Risk analysis of the planning phases after project approval
    - Risk avoidance
    - Risk sharing
    - Risk reduction
    - Risk transfer
* Implementation Phase
  + Update the list of risk as a task performed
  + Evaluation of risks and contingency plans
* Closeout Phase
  + Risk sharing and risk transfer are concluded
  + Verify closure and mitigation of risks

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| Risk Event | Mitigation Strategy |
| Insufficient technical resources | Provide technical training throughout the project. |
| Failure to integrate system components | Communication should occur early and often, particularly for cross-workstreams. |
| Inadequate testing | Identify and create a plan for system testing. |

# Communication Plan

This communication plan provides a framework for informing, involving, and obtaining buy-in from all participants throughout the duration of the project.

* Audience
  + Project Sponsor
  + Technical Leads
  + Developers
  + SMEs
  + Users
* Communications Methodology (Top-bottom, Bottom-up, and Middle-out)
  + Middle-out: Full support at all levels where changes will be implemented. Communicating specific benefits of changes and groups taking personal stakes for project success.
* Communications events
  + Monthly status reports: Project sponsor provide monthly written reports tracked against the project plan
    - Task completed
    - Task scheduled
    - Issues and resolutions
  + Bi-monthly Team status meeting
  + Centralized communications: SME and users share at the discretion

# Stakeholder Groups

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| **Stakeholder Group** | **Description** | **Stakeholder Issues/Concerns** |
| Project sponsor | Executive stakeholder management | Funding and business strategies/ project critical success factors and approve deliverables |
| Project Manager | Stakeholder management | Project success and completion |
| Technical leads | Code and implement | Deployment and testing |
| Project team members | Document, code and implement | Deployment and testing |

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| **Type of Communication** | **Description** | **Distribution Channel** | **Audience** | **Frequency** |
| Meeting Summaries | Summary of tasks complete, scheduled and issues/concerns | Meeting room and web conference | Project Sponsor, Project Manager  Technical Leads | Monthly |
| Presentations | Presentation from teams | Meeting room and web conference | Project sponsor, Project Manager | Monthly |
| Standups | Short daily status updates | Direct communication | Technical leads and team members | Daily |
| Status reports | Written project status tracked against project plan | Email and company SharePoint | Project Manager and Project sponsor | Bi-Monthly |

# Contact Information

# The following project team members can respond to inquiries about the project.

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| --- | --- |
| **Name** | **Role** |
| *Brittany Kircher* | *Project Sponsor* |
| *Debashis Jena* | *Enterprise Architect* |
| *Eugene Kim* | *Project Manager* |
| *Didimus Kimbi* | *Risk Manager* |

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