ITD Re-Organization Project

Group 3

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Anatomy of Project Orgs

PMGT 611

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# **Part I: The Project**

# **Project Charter**

Developing a project charter serves the purpose of formally authorizing the existence of a project and provides the project manager with the authority to apply organizational resources to project activities (PMI, 2013). The project charter for Group 3 is the complete overhaul of university I.T infrastructure from an archaic legacy system to modernized uniformed enterprise resource planning system that would “serve the growing needs of the university”.

## **Measurable Project Objectives and Related Success Criteria**

* Implement ERP Solution
* On Budget
* On Schedule

## **High Level Requirements**

* Data Migration
* Training Workforce on using Software
* Ticket System for I.T Department
* System Automation of back office

**High Level Project Description**

Although projects have been undertaken in the past to update and improve the infrastructure, these projects have often been off of schedule and over budget. It has been decided that an Enterprise Resource Planning (ERP) solution should be instituted to allow the university to “serve the university’s academic and administrative needs.” An ERP will allow for automation and integration of many back office legacy systems; it will allow the university to run more efficiently and effectively.

## **High Level Risks**

* Over budget
* Over Schedule
* Unable to migrating critical information in some legacy system
* Data lost, or stolen or compromised
* Sluggish Network responses

## **Budget**

Preliminary marketing information indicates that an ERP implementation of this magnitude may cost the university around $350,000 with an annual licensing fee of at around $8,000 a year.

## **Stakeholders**

***Assigned Project Managers***

Kimberly Figueroa

Victor Grate

Christopher Goff

***Project Sponsors***

Project is sponsored by president of the university as suggested by the newly formed alliance or Board of Regents.

***Stakeholder List***

A stakeholder is an individual, group or organization who may be affected by, or perceives itself to be affected by a decision, activity or outcome of a project (PMI, 2013).

Figure 2 Stakeholder Register



## **Project Approval Requirements**

* **Complete Data Migration**-Networking Department verifies all database information from legacy system is migrated into ERP.
* **System Secure**-System Penetration testing indicates ERP is secure.
* **System Stable**-All Divisions of ITD agree system is stable.
* **End User Expectations-** The senior management official in respective department agrees the product meets the requirements that were provided in the Analysis Phase.
* **Ticket System Established**

## **Project Scope**

The Board has decided to implement an Enterprise Resource Planning solution to leverage the capabilities of technology available today. An ERP system will allow the university to integrate all back office functions in the following areas:

●        Financial management

●       Supply chain and operations

●       Customer relationship management

●       Project management

●       Human resources management

●       Business intelligence

## **Goals, and Objectives**

The main objectives of this project is a new organizational structure that supports large projects and a fully functioning and integrated ERP system.

***Deliverables***

* Reorganizing the University and IT organizational structure.
* Selecting the vendor for ERP software that will meet all university needs.
* Ensure project stays on $350,000 budget with quality management.
* Provide a ticketing system for college departments to submit help desk tickets
* Provide training to end users for new system.
* Migrate university department data into ERP

***Sub-deliverables***

* Admissions and Enrollment request that the ERP provide an online self-service portal for current students to register and make payments.  They would also like for it to be able to take transcripts requests, allow for prospective, current and former students to digitally sign documents. In addition, they request the ERP to be able to automatically upload and index documents by type, that are sent by digital transmission into the system. Enrollments requests they have the ability to know what degree program are most searched on the school website; also collect information for marketing to website visitors.
* Financial Aid Department requests the ERP to allow students to check Financial Aid status, as well as the ability to accept or reject financial aid rewards.
* Academics Department is requesting that the ERP have the ability to house online courses. They would like the ERP to be able to allow for students in the Mathematics, Engineering, Computer Sciences, Biology, Chemistry departments be able to use industry specific software (CAD, MATLAB etc.) that is very memory intensive and expensive for students to purchase on their own; but allow the software to be accessed from a virtual server.  The ERP should be able to support mobile users.
* Human Resources is requesting that the ERP provide tools to keep an inventory of personnel to allow them to gain a greater ability to do strategic human resource hiring.
* Information Technology is requesting that the ERP be equipped with a web based interface that allows for each department to submit help desk tickets, with pull down menus that based on the selection the ticket will be queued to the appropriate I.T department. In addition, the IT department is requesting that the ERP has the ability to track I.T assets throughout their lifecycle. Webpage to inform of campus outages for I.T services (campus Wi-Fi or internet in dorms).
* Campus Police Department is requesting to send a real time alert in emergency situations campus wide such as an active shooter.
* Athletics Department would like to allow for college sports fans to purchase tickets for games and events.  In addition, allow for team schedules to be posted.

## **Project Time Frame**

This project is expected to take 24 to 48 months to fully implement.

## **Constraints**

* 48-month maximum for project duration. The team is encouraged to get the job done sooner.
* ERP Requirements must have the capability to be supported by ITD.

## **Assumptions**

* ITD staff once trained will be able to monitor, troubleshoot and control ERP system exclusively.
* This ERP Implementation will support the university to go paperless (digital document format).
* Should permanent positions be developed they will be filled internally.
* Project team members will be paid their same salary.

# **Scope Management Plan**

## **Scope Statement**

Install an ERP system throughout university and its various departments. Create or purchase a system which will improve accounting, communication between departments, be cloud-based, and train all university users on the system. The time-frame this will take will be within 48 months.

## **Scope Baseline**

The University will select an ERP software package that will have applications that will be fully integrated with the university legacy systems. The ERP will include capabilities for analytical reporting, and measuring and tracking key performance indicators across departments. Additionally, the ERP solution will include tools for performance dashboards, ad-hoc analysis, data-mining, as well as bi-directional integration with Microsoft Office tools such as MS Excel. The ERP will provide for a ticketing system that the university departments can use to notify I.T that systems are down, or if they require assistance that can be accessed by any end user over the university intranet “Home” page. The other features that will help modernize university operations includes:

* ***Integration framework:*** A robust integration framework is required at the core of the ERP Solution and can encompass capabilities and tools for data integration (e.g., ETL, web services, data quality, data profiling, replication, and change data capture), process integration (e.g., SOA, Hub & Spoke), and information integration (e.g., content management, and enterprise search) to enable a seamless information exchange between the ERP backbone and other applications.
* ***Information security:*** Security and controls across the data, application and infrastructure tiers are critical features of the envisioned ERP Solution. Since the ERP Solution will contain highly sensitive and confidential data, robust information security, data protection and governance are required, including encryption, firewalls, identity and access management, role-based access control, privileged user access control (i.e., to prevent system and application administrators from unauthorized access to confidential information), digital rights management, at all tiers of the ERP Solution (i.e., from user interface to disk). Additionally, security provisions need to protect the ERP Solution from malicious code, unauthorized access, hackers, and intrusion. Security provisions of the ERP Solution need to be in compliance with State security regulations.
* ***Hosted solution:*** ERP system should either be hosted on campus in the university owned data center facilities with system management functions provided by State staff or hosted by a third party using a Virtual Private Cloud (VPC) model with system management functions provided by the third party hosting provider.

 At the end of each phase will be a milestone, that will be checked against the quality plan to ensure the end users can requirements determined in the Analysis Phase is fulfilled as well as adherence to the budget and schedule.

**Work Breakdown Structure (WBS)**

In the PMBOK 5th edition it specifies that for I.T projects it is best practice to implement software projects such as the ERP implementation in phases (PMI, 2013). At the end of each phase the process owners will either accept or reject their individual portion of the project that touches their respective department. There will be five phases to the ERP implementation which will be: Analysis, Design, Construct, Test, and Rollout.

Phases of ERP Implementation

Work Breakdown Structure & PBS

# **Budget**

**Option 1**

The budget estimate provided in table includes the anticipated cost for deploying the solution that is owned and operated by the college in their data centers. This cost includes in addition to the hardware cost the required system software licenses, private cloud costs and network investment.

14,000

336,000

4,000

10,000

295,000

5,500

15,000

20,500

Totals

Personnel

Network

System Software

Hardware

Private Cloud

On Site

Component Cost

**Option 2**

The budget that follows is a cost estimate of choosing an ERP system from a system already provided it will be customized and will be maintained by MS Systems. This system is Windows friendly and are from an established company. The contract will be a set price for only one year and adjusted each year thereafter. This system is adequate and customized, but not as flexible in the customization as the university may need. With this ERP provider, there is no need to have a staff to support the system. There will be no adjusting and adapting to the university needs. Customization will very possibly raise the cost of service each year.

***Estimate for using MS ERP system***

Software license to use MS ERP system $100,000

Estimated users within ERP system 51+

On a scale of 1-5, of how much customization

required? 5

On a scale of 1-5, how intensive will data

migration to new system be? 5

On a scale of 1-5, how much training will

Be required with new system? 5

Application sets will be required on new

***System***

Core Accounting (GL, AP, AR, Payroll) Yes

Customer Relationship Management Yes

Human Resources Yes

Inventory Management Yes

***Total costs***

 Estimated implantation cost $275,000

 Software license to use ERP System $375,000

There are two choices being evaluated for the university to observe:

1. Create their own ERP or purchase customized system and maintain your own system
2. Purchase the rights to use and be maintained by Microsoft ERP Systems. It is our recommendation that the university chose Option 1, due to the versatility, long-term cost reduction, and customization/maintenance advantages.

 It is our opinion that Option 2 will constantly go up in cost each year, while Option 1 will be reduced to minimal personnel to constantly maintain and upgrade the system.With Option 1 the reorganization will happen first and the ERP project is expected to take 24 to 48 months. New roles and skills will need to be added to support this project. The human resources plan is a significant part of the project due to the reorganization and adding of new skills. If the new organization is not set up to properly support projects that impact all departments, it will impact the success of the project. The Human Resource plan will be updated as the reorganization progresses.

**Recommended Organization Structure**

A new organization structure will be required for the IT department in order to properly integrate the system with the rest of the university and for future IT projects that will be implemented in the future. The recommended organization structure for the university IT department is a structure that supports the integration of IT projects across all the functional groups in the university. This means that not only does the IT department need more authority in the university, but they also need to be integrated across the departments. For these reasons a matrix structure is recommended as well as adding a Project management organization outside of the IT department. More information on the recommended organization structure is shown in part 2 of this document.

**Communication Plan**

**Identify Stakeholders**

The Stakeholder list shown in the project charter will be used to help manage communication for the ERP project. The below communication matrix will be used for all communication. Not all stakeholders need to be involved in the team’s weekly meetings but they do need to be informed. The project manager will be the main point of contact for communication and will be responsible for reporting status to the deans and president ensuring training plans are in place with the focals. The frequency and delivery methods are reflected in the matrix below.

***Communication Matrix***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Forum** | **Objective** | **Audience** | **Freq** | **Responsible** | **Delivery** |
| **Kickoff Meeting** | Set deliverables needed and objective for final event– start on schedule and budget | Sponsor, Project Team & Focals | Single Occurrence  | Project Manager | Face-to-face |
| **Project Team Meetings** | Plan schedule, budget, risks and define requirements  | Project Team, Focals, end users | Weekly | Project Team | Face-to-face |
| **Project Status Reports** | Status schedule, budget and progress to plan.  | Deans, VPs and President | Monthly  | Project Manager | Email /Face-to-Face |
| **Budget and Schedule Updates** | Revisions to timeline leading to event and budgetary restrictions and expansions | Project Manager | Monthly | Analysts  | Email |
| **Trainings** | Train end Users  | End Users from various departments | As required | Department Focals and PMO | Online |

**Quality Control Plan**

In the PMBOK 5th Edition Project Quality Management includes the processes and activities of performing organization that determine quality policies, objectives and responsibilities so that the project will satisfy the needs for which it is undertaken (PMI, 2013). Project Quality Management involves three attributes: Plan Quality Management, Perform Quality Assurance, and Control Quality.

The Integration Management team will utilize processes which will enable them to manage, monitor and control quality. This team will consist of the Dean of the Department in question and the ITD Director support element or Senior Management and applicable ITD Director support element and software vendor liaison. This team will verify the software vendor provides the functionality requested in software. This team will ensure 100% of end users and support personnel has completed training. Business Process Modeling will map the business process to the component of automation. Validation of requirements will be done with end users, and ITD support element and vendor software liaison.

Keeping the project on time and on schedule is a function of the project manager. Metrics can be utilized, and applied at the work package level to control schedule and cost. These quality measurements can be accomplished by using Earned Value Management: which consists of Planned Value, Earned Value, Actual Cost, Schedule Variance, Cost Variance, Schedule Performance Index and Cost Performance Index. These measures will be applied at the work package level in the WBS, but defined in the next section.

**Planned Value** (PV) is the authorized budget assigned to scheduled work.

**Earned Value** (EV) is a measure of how much work is performed expressed in terms of the budget authorized for that work.

**Actual Cost** (AC) is the realized cost incurred for the work performed on an activity during a specific time period.

**Scheduled Variance** (SV) is a measure of schedule performance expressed as the difference between the earned value and and planned value.

**Cost Variance** (CV) is the amount of budget deficit or surplus at a given point in time expressed as the difference between earned value and the planned cost.

**Scheduled Performance Index** (SPI) is a measure of schedule efficiency expressed as a ratio of earned value to planned value. It measures how efficiently the project team is using its time.

**Cost Performance Index** (CPI) is a measure of the cost efficiency of budgeted resources, expressed as a ratio of earned value and actual cost.

**Human Resources Plan**

## **Project Staffing Plan**

**Project Staffing Requirements**

This ERP project will require internal resource allocation and external resource acquisition. These resources will be needed for 16-48 months. The project will require some additional staff members and skill sets, but most of them will be reallocated to the project from other groups through the reorganization of the department. Project managers, programmers and information system resources assigned to the project will need to be dedicated full time to the project. The analysts and SMEs from other departments will be shared resources. Analysts will also support other projects within the IT department. Functional SMEs will be assigned to the project during specific phases to help define requirements from their departments and verify these requirements are satisfied by the new system. The Network Architect will also need to be consulted in the planning and implementation phases to ensure accurate transition. The below Matrix identifies the phases of the project each resource is needed.

**Roles and Responsibilities**

***Project Manager***

The project manager will lead the team in all phases of the project. The main responsibilities of the project manager are to coordinate, communicate, plan, schedule and manage risk.

***Information System Specialist***

        This person will be contracted to come support the team and provide their expertise and experience in working with ERP systems.

***Business Analyst***

The Business Analyst role will be the same as it was in the existing organization. They will be a shared resource with other project teams and provide analysis of the university operations and perform administrative functions.

***Network Architect***

The Network architect function will also be the same as in the previous organization however their support in this particular project will be to provide their knowledge and expertise in the universities network and security to ensure that the ERP system can be integrated with the universities system.

***Programmers***

        The programmers will be dedicated to the project team through the entire project and their main responsibility is to program the ERP system based off the design formed in the planning phase of the project. In the testing phase they will work with functional SMEs to ensure that the system functions as intended.

***Functional Department SMEs***

The functional department subject matter experts (SMEs) are selected individuals from the various impacted departments that will be assigned to the project team to be focals for their department. Their main role is to ensure that the new ERP system will support their departmental needs and to set up communication and training plans with their departments regarding the ERP system. They will also support the beta testing of the system.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Role** | **Initiating** | **Planning** | **Developing** | **Test** | **Implement** |
| Project Manager | X | X | X | X | X |
| Information System Specialist | X | X | X |  | X |
| Business Analyst | X | X | X |  | X |
| Functional Department SMEs | X | X |  | X | X |
| Programmer 1 | X | X | X | X | X |
| Programmer 2 |  |  | X | X | X |
| Network Architect |  | X |  |  | X |

**Staffing Timeframes**

* The Project Manager will be chosen immediately.
* The Project team (Information system specialist, Business analyst, Programmers 1) within four weeks.
* Network architect will be chosen within six weeks.
* Functional Department SMEs will be added as needed during the process and be utilized during the training phase.

**Staffing Counts**

1 Project Manager

1 Information System Specialist

1 Business Analyst

1 Network Architect

2 Programmers

5 Functional Department SMEs

## **Type of Labor Skills needed**

For the IT department’s reorganization project management and project office skills are needed. For this ERP project in particular we will need IT, project management and information system skills. We will also need support from the respective function subject matter experts (SMEs) to work with the project team to define and verify each department’s requirements. We will utilize existing functional SMEs and IT support but will need to onboard a project manager and an information systems resource.

## **Resource Qualifications**

The resources will be expected to have the required competencies and skills of their role before the beginning of the project. New information pertaining to ERP knowledge and new processes developed by the PMO group may be required and will be distributed by the responsible groups.

## **Training needs**

For the project the resources will be expected to have the required competencies and skills of their role before the beginning of the project. New information pertaining to ERP knowledge and new processes developed by the PMO group may be required and will be distributed by the responsible groups.

During the implementation phase members of each department will be trained on the

capabilities and usage of ERP to facilitate better usage of this system.

## **Materials/Other Resource Needs**

●    Dedicated Server

●    Use current network infrastructure

●    Application Support

●    Network support

●    Appropriate ERP system application

## **Resource Company Information**

The University is considering using or consulting with Microsoft Dynamics for the ERP system. Microsoft Dynamics began working in computer systems as early as 1975.  The system they propose has popularity and success with these types of former clients:  Construction, Distribution, Education, Financial Services, Government, Healthcare, Manufacturing, Not for Profit, Professional Services, and Retail.  This system has cloud-first technology and allows multiple divisions growth, technical support, customization, and longevity of business (Panorama, 2016).

## **Bidding and Contract Terms**

***Contract terms***

The only intended contract outside of the university is for the information system SME and the software package may be outsourced. The contract terms are as follows: Payments to the consulting firm will be divided into four equal parts, first payment upon acceptance of terms of contract, second payment when the system has been installed in all departments, third payment upon completion of initializing and testing all systems in all departments, and last payment when all departments have been trained.

# **Change Control Plan**

 For this project and all projects going forward that involve IT at the university all changes must utilize the change management process. This will help control risk and scope creep in all IT projects as well as ensuring the right stakeholders are involved in change decisions. It will also ensure for future projects or changes to the ERP system that the IT department and any other applicable departments are involved.

**Change Process**



1. A Change request is submitted via the change request form. This change could be as small as asking for an additional programmer or as large as asking for a new project from the IT department.
2. The change manager records all change requests in the change log.
3. The change manager presents all of the change requests to the change board at a bi-weekly meeting where the changes are assessed for their impact to schedule, budget, headcount and other risk factors. T
4. Once the change board makes a decision it is then recorded in the change log.
5. The change manager is responsible for communicating all changes to the impacted stakeholders through normal communications channels outlined in the communication plan.

**The Change Board**

The change board meetings and representatives are coordinated by the assigned change manager in the Project Management Office. The board is to be made up of a representative from each department and there must be a representative from various roles including working level, management and at least one senior level management sponsor must be present.

**Sponsor Acceptance**

Acceptance Criteria

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_

 Customer Approval

Criteria: ERP System, Reorganize

ITD, Train Personnel on use, Complete in forty-eight months or less for $350,000.

Description: To install a ERP system that will integrate cloud technology and enable all college departments to communicate and conduct business more efficiently.

Acceptance Person: University President

Requested By: IT Director

Acceptance Details

Project Name: College ERP

Project Manager: ITD Director

P

Project Details

# **Summary**

        This project has two end goals, restructure the university’s organization to enable them to be more effective with projects going forward and to implement a new ERP system. The reorganization will happen first and the ERP project is expected to take 24 to 48 months. New roles and skills will need to be added to support this project. The human resources plan is a significant part of the project due to the reorganization and adding of new skills. If the new organization is not set up to properly support projects that impact all departments, it will impact the success of the project. Part 2 of this document covers the reorganization of the ITD.

# **Part II**

**Project Introduction**

        The Board of Regents for a university has decided that the I.T infrastructure is inadequate to serve the growing needs of the university. Although projects have been undertaken in the past to update and improve the infrastructure, these projects have often been off of schedule and over budget.  It has been decided that an Enterprise Resource Planning (ERP) solution should be instituted to allow the university to “serve the university’s academic and administrative needs.” An ERP will allow for automation and integration of many legacy systems and it will allow the university to run more efficiently and effectively.

## **Project Background**

The university has recently joined a group of other universities as part of a new alliance.  This new alliance requires the university to revisit its IT strategy, operations, policies, and budget to optimize the use of Information Technology assets and resources.  Major IT projects are expected to take place in the future.  One of these major projects is the implementation of a uniform enterprise resources planning system to serve the university’s academic and administration needs.  It has been observed that the current organization structure is not set up for implementing this major project. This project will involve almost every single unit in the organization.  The project will involve an update to the organizational structure and will also require training for the various departments on the new system. The project team will work with the other departments to convert their existing data into the new system and make sure that all these systems are now integrated.

# **Issues in Current ITD Organizational Structure**

The I.T related projects at the university have suffered due to lack of communication, and failure to identify the stakeholders that are critical to the success of the project. All of the issues seem to stem from the fact that the neither the I.T department or the departments that they support understand that the I. T department effectively own the system and that the end users are the people whom use those systems on a daily basis. Failure to properly identify and consult with the end users has made the university I.T related projects run over budget and over schedule. In the university steering committee, historical information or artifacts about the past university projects were disclosed. The following issues have been identified:

* IT department lack of authority and poor relationship amongst other departments
* Limited Budget or poor budget management
* Poor schedule management
* 24% of all projects were cancelled before they are completed, 44% of projects were late, over budget, and/ or missed meeting performance requirements. Only 32% of projects were delivered on time and within budget.
* Most of the university departments and colleges assign their IT-related issue to one of their employees and leave it to him/her to resolve these issues. They can resolve these issues with or without the assistance of ITD.
* Lack of coordination and visibility with IT-related projects within university departments and colleges, ITD is not aware of or cannot support several systems
* There does not appear to be a ticketing system for I.T issues that arise in the different departments, that the I.T department supports.
* Large implementation projects were almost totally outsourced.

It will be advantageous to develop an overall more inclusive environment in which I.T department is included in procurement decisions for software and hardware systems that they will be required to support as well as resolve all current network connectivity, application software and hardware issues. The I.T department should have absolute control, and authority over what software and hardware that align with current network topology and current hardware investments in place. The I.T department is responsible for securing the digital assets of the organization. They will be responsible for applying the software patches, upgrades a securing databases. The I.T department has the responsibility of constantly monitoring the network for malicious software, and hackers attempting to steal information. Purchasing software that might have a software vulnerability that hackers can exploit, should be a major concern, and again should be the primary reason that the I.T department should have primary control over all hardware and software issues. Therefore, the I.T department actual clients are the university staff, student body, and the general public with authorized access to university facilities.

The current structure of ITD is segmented into three distinct departments. These departments are Networking, PC support and Application support respectfully. These units have junior technicians, and senior technician, that are better known as the “lead” technician; each department has a director that report directly to the assistant CIO and CIO. The applications support department has webpage, database, and application programmers. The PC Support department has system engineers and system administrators. The Networking department has all the network administrators, and system security and intrusion detection personnel.

***Current Structure***

## **Strengths and Weaknesses in Current Structure**

 The below Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis outlines the major strengths and weaknesses in the IT department. The major strengths identified for the IT department seem to be the existing skillsets of the employees. There does not seem to be any issues with the skills of the programmers and technicians and their ability to complete IT projects in house.  The other strength noted is the current director of applications support and her experience in project management as well as her attitude towards improving the structure and performance of the group. This has also been presented as an opportunity because her experience can be utilized to improve the current Organizational structure and project management in the department.

 The major weaknesses identified are the lack of communication between the different groups within the IT department and the different departments at the university. Another weakness is the overall lack of project management including lack of accountability over projects that are implemented in silos amongst the various departments. One of the weaknesses that was noted as a threat is the assistant CIO who has poor relationships with the different department heads and does not support an improvement to project management in the organization.

SWOT Analysis



# **Proposal 1**

There are a few organizational structures that Group 3 has discussed that might improve communication and ensure critical stakeholders are consulted. Below the current organization structure is provided as a reference, so that one can see clearly how modifications to the current organization structure will resolve communication issues with stakeholders, and also allow all critical stakeholders to provide input on all the universities upcoming projects. This structure is a representative of the current ITD organization structure and a typical university Organization structure obtained from University of Virginia (University of Virginia, 2016). The intent of incorporating the ITD into a larger university organization structure is to show how the IT department is aligned to the other departments in a typical university structure. As shown in the below structure the IT department is several levels down in the hierarchy which is one of the factors causing their lack of authority and inability to integrate with the other departments.

Current Organization Structure

## **Objectives**

 The main objectives of the proposal to change organizational structure are:

* Ensure that ITD is consulted before any decisions to upgrade hardware and software on the network
* Provide better support to the other departments in the organization
* Provide more consistent and centralized way to manage projects
* Remove the burden of implementing projects from the directors and individuals on the teams
* Provide more discipline in the selection, planning, budgeting and execution of projects

## **Reporting Structure**

The proposed organization structure is shown above with the functional reporting structure. In this proposal it is recognized that the Chief Information Officer is under the Vice President for Operations (current organization chart) which weakens and minimizes the significance and importance, and influence that the CIO should have within the organization. Group 3 has concluded that it is likely that I.T department consumes a small portion of the Vice President of Operations attention. Information Technology is not the Vice President of Operations expertise. Risk Assessments, Incident Reporting and other critical matters regarding securing organization assets, ensuring technology investments complement and improve our I.T infrastructure, while decommissioning old antiquated legacy systems.is beyond the scope of his or understanding. By promoting the assistant CIO to CIO will eliminate the assistant CIO position.

**Roles and Responsibilities**

***Vice President of Technology***

The Vice President of Technology will be responsible for ensuring any technology procurements considers the infrastructure and investments of the network in place. Provide guidance when end users make requests for new technologies and ensure they align with the strategic direction and accept the level of risk associated with deploying such technologies. The Vice President of Technology will be the functional manager that brings ITD concerns directly to university President. This will create a composite organizational structure as the structure will have characteristics of both functional, matrix and projectized organizational structures (PMI, 2013).

***Director of Projects***

The director of projects will be responsible for overseeing all projects at the university ensuring they align with the University presidents strategic vision.

***Chief Information Officer***

The Chief Information Officer is responsible for overseeing I.T service operations. The CIO will coordinate with the Directors of Applications, PC and Networking and Communication support regarding the service level metrics and security concerns.

***Director of Application Support***

The director of application support roles will be to support all application housed on university servers.

***Director of PC Support***

The director of pc support ensures all hardware devices, are supported and an asset management tracking system is accurately tracking location, and warranty information.

***Director of Networking and Communication***

The Director of Networking and Communication ensures network security and connectivity throughout the university campus.

***PMO***

 The Project Management Office will be responsible for supporting the Project Management organization and ensure that all projects are aligned to university mission. They will be responsible for the assigning resources and controlling processes and tools. Another function of the PMO group will be to work with the various departments to acquire SMEs and develop training plans for new projects. The PMO will also include shared resources such as business analysts that will assist the project teams with planning and budgeting for projects. The PMO will also be responsible for communications regarding new projects between project teams and other departments.

***Project Managers***

The project manager will lead the team in all phases of the project. The main responsibilities of the project manager are to coordinate, communicate, plan, schedule and manage risk.

***Programmers***

        The programmers will be assigned to specific projects to support the programming needs of each project. They will report to the director of application support as well as the project manager for their assigned project if applicable.

***Functional Department SMEs staffed from Deans or Directors of Colleges or Departments***

The functional department subject matter experts (SMEs) are selected individuals from the various impacted departments that will be assigned to the project team to be focal point for their department. Their main role is to ensure that the new projects will support their departmental needs and to set up communication and training plans with their departments. They will also support the beta testing of the system.

## **Communication**

 Communication will be essential with this new structure. Each project will have an appropriate communication plan to ensure the appropriate groups are engaged. There will also be a change board implemented via the PMO group to control and communicate any changes to scope of projects. The Director of Projects, and the Vice President of Technology reports directly to the President of the University. Whereas in the previous structure the Director of Projects reported to the Chief Information Officer. In this organizational structure the PMO is centrally located so that it could provide guidance on all projects, without a filter or bias that could develop from the I.T department. The Vice President of Technology is able to directly communicate with the President of the University. This organizational structure should ensure that the university president can make decisions on procurement that considers all the risks, and stakeholders involved. Once a meeting is called with all Vice Presidents of functional areas, the university president can decide on the best option given all the information.

Each project manager will be expected to report out to the director of projects and PMO group on a weekly basis on the status of the project including budget, risk, schedule and any internal issues. The Director of projects and PMO communication specialist will be responsible for communication to the various departments. Each functional department SME will be responsible for communication to their department throughout the project.

## **Expected New Outcomes**

The expected new outcome is that with everyone realizing what their role actually is, they can focus on those duties as input to the process improvement or change. This will allow projects to be finished on time and on schedule meeting end user requirements.

## **Dean and Director Buy In**

The Director of Projects should facilitate the kick off meeting. The Director of Projects should ensure that the dean’s of the different schools on campus are physically sitting with the directors of the ITD. The Director of Project should acknowledge that no one is more capable of providing software requirements then the end users that will use the software; however also explain no one is more capable of explain hardware specifications, and what is able to be supported hardware or software wise, than ITD. Both groups are subject matter experts. The Director of Projects should remind both groups, that we are all on the same team, just trying to do whats best for the organization. At this kick off meeting the Director of Projects should as for volunteers for the Intergration Team. The Intergration Team will be the quality component that will ensure the project scope, and requirements collected from the Analysis Phase are built into system. This team will be comprised of end users, the software vendor and ITD staff member represnting the group that will support that functionality. Announce awards will be given on the team whom has the best schedule, and cost peformance per phase.

# **Proposal 2**

 The second organizational structure being proposed is to create a form of matrix organization by adding a new department which would be the Project Management department led by the Director of Projects. This new structure is set up like a dedicated project team structure from a university standpoint but a matrix structure within the IT department. In this structure there would be a few roles that report to the project management function including Project Managers and a Project Management Office. For new projects including the ERP system technicians and programmers will be assigned to support those projects either full or part time and report to the Project Manager leading the project. Effected department will also assign focals to support these projects to ensure their department’s requirements are being met. Another function proposed is adding a PMO to assist with consistency and processes in tools.

**Objectives**

 The main objectives of this proposed organizational structure are to

* Provide better support to the other departments in the organization
* Provide more consistent and centralized way to manage projects
* Remove the burden of implementing projects from the directors and individuals on the teams
* Provide more discipline in the selection, planning, budgeting and execution of projects

## **Reporting Structure**

The Proposed Organization Structure is shown below with the functional reporting structure and the smaller dotted line structure illustrates how the project team will be structured.



One critical piece of this new structure is the creation of the Director of Projects. This position is proposed to be filled by the previous Director of Application Support due to her experience in the University’s IT department and knowledge, qualification in project management. Her experience in IT, attitude towards project management and desire to improve the way the department operates will make the transition much smoother.

 Another piece of this proposal is to remove the position of Assistant CIO and offer the CIO the opportunity to backfill the vacant Director of Application Support position overseeing the programmers. This is due to his lack of cooperation with the other departments and attitude towards project management and improving communication with the university's department heads. In this new structure he will still report to the CIO but will not interact with other departments as he did before.

**Roles and Responsibilities**

In this new organizational structure there are a few new roles created or moved which are outlined below. The remainder of the roles will remain the same as they were previously.

***Director of Projects***

The director of projects will be responsible for all new projects involving IT at the university. This person will report to the CIO as well as engaging with and reporting status of projects to the various department heads and university president.

***Director of Application Support***

The director of application support roles and responsibilities have changed to include functional support of the programmers including resourcing, training and assigning to projects.

***PMO***

 The Project Management Office will be responsible for supporting the Project Management organization and ensure that all projects are aligned to university mission. They will be responsible for the assigning resources and controlling processes and tools. Another function of the PMO group will be to work with the various departments to acquire SMEs and develop training plans for new projects. The PMO will also include shared resources such as business analysts that will assist the project teams with planning and budgeting for projects. The PMO will also be responsible for communications regarding new projects between project teams and other departments.

***Network Architect***

The Network architect function will also be the same as in the previous organization however their support in this particular project will be to provide their knowledge and expertise in the universities network and security to ensure that the ERP system can be integrated with the universities system.

***Project Managers***

The project manager will lead the team in all phases of the project. The main responsibilities of the project manager are to coordinate, communicate, plan, schedule and manage risk.

***Programmers***

        The programmers will be assigned to specific projects to support the programming needs of the each project. They will report to the director of application support as well as the project manager for their assigned project if applicable.

***Functional Department SMEs***

The functional department subject matter experts (SMEs) are selected individuals from the various impacted departments that will be assigned to the project team to be focals for their department. Their main role is to ensure that the new projects will support their departmental needs and to set up communication and training plans with their departments. They will also support the beta testing of the system.

## **Communication**

 Communication will be essential with this new structure. Each project will have an appropriate communication plan to ensure the appropriate groups are engaged. There will also be a change board implemented via the PMO group to control and communicate any changes to scope of projects.

Each project manager will be expected to report out to the director of projects and PMO group on a weekly basis on the status of the project including budget, risk, schedule and any internal issues. The Director of projects and PMO communication specialist will be responsible for communication to the various departments. Each functional department SME will be responsible for communication to their department throughout the project.

## **Expected New Outcome**

 There are many benefits to a matrix organizational structure including increased efficiency, project focus, accountability and smoother post implementation transitions (Gray & Larson, 2014). Currently projects are implemented within individual departments by people who have other duties as their full time jobs. Most projects are completed in silos and are over budget and schedule. This new structure with the addition of the PMO will drive discipline, accountability and consistency to university and IT projects. Having these resources dedicated to the project, using project management practices and engaging with the various impacted departments will ensure each project provides value to all impacted and are managed properly through all phases of the project.

## **Dean and Director Buy-in and Cooperation**

 Previous university statistics show that a change is needed in order to improve the way that projects are selected, managed and executed. University statistics show that Only 32% of projects were delivered on time and within budget and the remainder were either cancelled prior to completion, over budget, late or not meeting requirements. This new proposal will ensure that all projects are properly vetted and communicated and only projects that are value added and achievable within the parameters are pursued. It will also ensure complete focus and discipline to projects that are selected including proper project management which will improve the statistics of projects that are completed on time and within budget.

# **Recommendation**

 Option 1 is the recommended organization structure for the ERP project and future IT and non-IT related projects within the university departments. This structure gives the IT department the authority they need and also provides a specific project management function to help support the project and integrate with the various departments at the university. This matrix hybrid will allow all departments to operate within their specialties while the project management department coordinates the planning and implementation of new projects with their support.

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