**Assignment 5 - Project Quality management**

QUALITY MANAGEMENT

**Project Title:** Infrastructure Transformation Project

**Project Sponsor:** CIO  **Date Prepared:** 03/26/2016

**Project Manager:** Amit Prabhakar  **Project Customer:** ABC Corp.

**Project Quality Management**

**Project Scope Description:** The project will focus on complete analysis of the current system for the four critical applications i.e. HR/Payroll, CRM, Tech Support and email to enable the team to architect a solution with built in redundancy for the infrastructure on which the applications are hosted on. The project aims at creating a virtual environment for the applications, mirror primary and secondary databases, load balance two data centers to provide high availability across geographical locations. Once the virtual environment is setup the applications and their data needs to be migrated to the new system and after UAT the new system will go live and the old system will be kept dormant before decommissioning it eventually.

**Project Deliverables:** The following are the products of the project –

1. Operational servers capable of hosting the four primary services as virtualized systems.
2. Virtualized images of the four primary enterprise system services: accounting,

Customer resource management, email and tech support.

3. Mirrored primary and secondary databases.

4. Load balancing between two data centers.

5. Migrate data from the old system to the new setup

6. UAT and go live

7. Periodic progress reports at a scheduled negotiated with the customer.

**Quality management approach**

The purpose for managing quality is to validate that the project deliverables are completed with an acceptable level of quality. Quality management assures the quality of the project deliverables and the quality of the processes used to manage and create the deliverables.

The quality management plan identifies these key components [2]:

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| **Objects of quality review** | **Quality Measure** | **Quality Evaluation Methods** |
| Project Deliverables | Deliverable Quality Standards  Completeness and Correctness Criteria | Quality Control Activities |
| Project Processes | Process Quality Standards  Stakeholder Expectations | Quality Assurance Activities |

The following is a brief explanation of each of the components of the quality management plan [3].

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| **Project Processes** | The key project deliverables and processes subject to quality review. |
| **Deliverable**  **Quality Standards**  **and**  **Completeness and Correctness Criteria** | The quality standards that are the “measures” used to determine a successful outcome for a deliverable.  The completeness and correctness criteria describe when each deliverable is complete and correct as defined by the customer. Deliverables are evaluated against these criteria before they are formally approved. |
| **Process**  **Quality Standards**  **and**  **Stakeholder Expectations** | The quality standards that are the “measures” used to control if project work procedures are followed.  Stakeholder expectations describe when a project process is in effect as defined by the project stakeholders. |
| **Quality Control Activities** | The quality control activities that monitor and verify that the project deliverables meet well-defined quality standards. |
| **Quality Assurance Activities** | The quality assurance activities that monitor and verify that the processes used to manage and create the deliverables are followed and are effective. |

**Quality management process**

ABC Corp. team has a dedicated quality management team that focuses on ensuring the optimum quality for the projects delivered by the organization. This project is considered a strategic initiative by the organization and thus has a dedicated quality manager to ensure quality at each step of the project. The quality management approach covers the following:

* Creation of a ‘Quality management plan’ as a part of ‘Planning’ activities. Quality metrics and assessment to be designed, reviewed and signed off by the respective stakeholders.
* Adherence to ‘Quality assurance’ standard operating procedures of the corporation. Every task is expected to be checked for completion, and correction as per the set guidelines.
* Monitoring and control lead by the quality manager through the process will keep a hock eye on the project progress and deliverables with respect to quality.
* The project signoff will contain a strict alignment to the project quality.

The various areas to be focused on at the different stages of the project for quality measurement and control are detailed in the below table:

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| **Project Stage** | **Deliverables and measurement controls** |
| Project Initiation | * Project definition and its scope quality * Project Justification * Definition of the roles and responsibilities of project stakeholders * Communication plan effectiveness |
| Design | * General description of the proposed project design * Duration of the project activity – planned vs actual * Application of an approved baseline and monitoring methodology * Monitoring plan |
| Project Monitoring and Control - Monitoring and Controlling Project Work | * Recommended corrective actions frequency * Recommended preventive actions response and resolution time * Deliverables monitoring |
| Integrated Change Control | * Adherence to approved change requests * Rejected change requests * Updates to the Project Management Plan * Updates to the Project Scope Statement (and requirements) * Approved corrective and preventive actions * Approved defect repair * Validated defect repair * Deliverables |
| Scope Verification | * Accepted deliverables * Requested changes * Recommended corrective actions |
| Scope Control | * Updates to the Project Scope Statement and Scope baseline (this includes requirements) * Updates to the Work Breakdown Structure (WBS) and the WBS Dictionary * Requested changes * Recommended corrective actions * Updates to organizational process assets * Updates to the Project Management Plan |
| Schedule Control | * Updates to the schedule model data and baseline * Performance measurements * Requested changes * Recommended corrective actions * Updates to organizational process assets * Activity list and activity attribute updates * Updates to the Project Management Plan |
| Cost Control | * Cost estimate planned vs actual * Performance measurements * Forecasted completion * Recommended corrective actions tracking * Updates to the Project Management Plan |
| Performing Quality Control | * Quality control measurements * Updates to the quality baseline * Recommended corrective and preventive actions * Requested changes * Validated deliverables * Updates to the Project Management Plan |
| Managing the Project Team | * Team selection * Project rooster and work allocation and tracking * Team communication management * Training and development |
| Performance Reporting | * Performance reports * Forecasts * Requested changes * Recommended corrective actions * Updates to organizational process assets |
| Project Execution | * Managing Project Scope * Quality Assurance * Hardware and Software delivery * Partner selection for implementation * Partner delivery, test, handover and go live for the project |

**Quality Control**

Quality control methods of ABC Corp. is based on the above list and the deliverables at each stage of the project. The evaluation will be based on customer feedback (both internal and external customers), delivery team inputs, and business stakeholder’s inputs and will be led by quality manager who will be closely monitoring the project for any deviation from the set quality standards through the project.

* Continuous evaluation of the performance of ABC IT team, hardware, software and implementation partners will be carried out to ensure compliance.
* If the criteria could not be met, a change request should be created and approved before the necessary changes are implemented. This change request has to be run through project manager, procurement team (if hardware, software or implementation) and the quality manager.

**Project quality assurance**

The focus of quality assurance is on the processes used in the project. Quality assurance ensures that project processes are used effectively to produce quality project deliverables.

The following table identifies:

* The project processes subject to quality assurance.
* The quality standards and stakeholder expectations for that process.
* The quality assurance activity – such as a quality audit or reviews - that will be executed to monitor that project processes are properly followed.
* How often or when the quality assurance activity will be performed.

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| Project Process | Process Quality Standards/  Stakeholder Expectations | Quality Assurance Activity | Frequency/Interval |
| 1. Develop/refine project charter 2. Develop/refine project plan 3. Execute and control project per project plan      1. Approve each project stage 2. Close project with post project review | 100% compliance  100% compliance with project scope, time and budget  95% compliance with project scope  100% compliance with project scope  100% compliance with project scope | Audit charter updates by phase  Audit plan content and updates, project priorities, and task estimation  Audit the following project activities:   * Quality * Communications * Project progress   Audit stage checkpoints  Audit project reviews by phase | Once per project phase  Once per project phase  Weekly  Monthly  Monthly  Once per project phase/stage  Once per project phase |

**Quality acceptance criteria:**

The final criteria for acceptance will be a fully functional system where the four environments are moved and go live with the desired uptime and functionality within the constraints of scope, time cost and quality.

1. All compliance audits should be in compliance to the set strandards
2. All requirements need to be formally approved by the respective stakeholders.
3. The work completed needs to be signed off as per below:
   1. Work completed as per the scope of work signoff by internal teams
   2. Work completed as per the Scope of work and contract signoff with the chosen partner for the implementation
4. Complete setup of the new infrastructure environment with all desired functionality
5. Migrating applications and data from old system to new environment
6. Backup & Restore testing completed successfully.
7. Strict adherence to network, security and data confidentiality policies of ABC Corp.
8. Project delivery as per the scope signed off with the partner for hardware, software and implementation by partners.
9. [User acceptance testing (UAT)](http://www.simplilearn.com/fundamentals-of-software-testing-rrt3co41vd247-video) completed and the Senior User/Project Executive signed off on user acceptance testing.
10. Go live with all functionalities signed up at the beginning of the project

**ASSUMPTIONS AND CONSTRAINTS LOG**

**Project Title:** Infrastructure Transformation Project **Date Prepared:** 03/25/2016

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| ID | Category | Assumption/Constraint | Responsible Party | Due Date | Status | Comments |
| 01 | Initiation | User requirements will be able to be verified easily by all stakeholders. | Project Manager | Feb 20th | Closed | All stakeholders agreed on this ground. |
| 02 | Initiation | Project has full support from the project sponsor. | Project Manager | Feb 20th | Closed | Agreed to be funded by the project sponsor completely. |
| 03 | Planning | ABC’s IT team has efficient technical resources for completing assigned tasks. | Team Lead | N/A | Closed | Team lead made sure to gather sufficient resources for the project to be completed on time. |
| 04 | Planning | Training and other incentives will be provided to project teams to enhance their capabilities resulting in high quality of project products and increased efficiency. | Project Manager | N/A | Pending | Discussions ongoing with higher management as to how and what incentives shall be provided during the Process. |
| 05 | Execution | Quality is the first priority taking in account cost, scope and time. | Quality Manager | N/A | Open | Understood and agreed by the team working for the project. |
| 06 | Execution | The partners – IBM, Accenture, ATOS, TCS, Infosys and Cognizant have the required skills and resources to complete the project. | Procurement Manager | N/A | Closed | Partners involved have agreed to provide efficient resources for the project. |
| 07 | Procurement of H/W and S/W | There will be no back orders while procuring the hardware and software. | Procurement Manager | N/A | Closed | Both the sender and receiving party agreed to no back orders. |
| 08 | Scope Design | The first version of implementation cannot exceed one year from the start date of the project including hardware and software delivery and implementation by partner. | Project Manager | N/A | Closed | Agreed subject to project being completed on by the prescribed date. |
| 09 | Execution | The requirements and implementation team by partner needs to work onsite with ABC Corporation IT team. | Team Lead | N/A | Closed | Team has agreed to terms and conditions to work onsite for the project. |
| 10 | Execution | IT system must comply with recent architectural design approved by the technical team of ABC Corporation. | Team Lead | N/A | Open | Research ongoing regarding the latest technology architectural to be taken into consideration and that is in sync with ABC Corporation. |
| 11 | Testing | Backup and restore testing shall be completed successfully before it goes live with desired functionality. | ABC’s IT team | N/A | Open | Understood by the IT team and they’re ready to utilize resources to the fullest for testing. |
| 12 | Testing | User Acceptance Testing (UAT) is completed and signed off by the Senior Project executive on UAT. | ABC’s IT team | N/A | Open | Agreed by both parties for UAT and the sign off. |

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| 13 | Planning | Business Continuity Plan (BCP) is in place to be used in situations if and where the IT system is unavailable. | ABC’s IT team | N/A | Closed | If for a reason the IT system is unavailable, BCP will cater to the needful. |

**References:**

1. Project Management Body of Knowledge Book by Project Management Institute, 2013
2. <http://www.project-management-skills.com/project-quality-management.html>
3. <http://www.pma.doit.wisc.edu/plan/3-2/what.html>
4. <http://www.pma.doit.wisc.edu/plan/3-2/tools.html>
5. <http://www.pmdocuments.com/project-execution-documents-and-templates/>

**Note:** We have referred the above content and articles to formulate the response in this section of the report. Some details have been picked up and modified to align the response, matrix to the ABC corp. Infrastructure transformation project.