

Project Name
Speed Telcom Service Call Center



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Introduction

1.Business Case

ST is a telecommunications company that provides landline, mobile and Internet services to a wide variety of customers in both the private and corporate sectors. With a track record for success, ST's strategy has always been to stand out from its competitors by offering the best customer service available on the market. Now, the pressures of substantial company growth are beginning to create some problems.

In the past, ST offered a level of customer service which was second to none in the market, by localizing the service offered to customers. Five regional offices were established to enable the company to offer personalized services to new and existing clients in their local regions. As ST have grown, additional pressure has been placed on these local offices due to the increase in the number of clients each office is required to support. In response to this added pressure, each office has developed its own Help Desk to support customer queries and complaints.

Historically, ST has had received complaints from less than 0.1% of its customers per year. However, in the past 12 months, it has been noticed that the number of complaints has risen to more than 5%, and it is beginning to affect the company's reputation in the marketplace. A detailed research exercise, recently completed within the business, has found that the rise in complaints was due to:

- A lack of communication between regional offices
- Varying levels of customer service among the offices
- Inadequacies in the systems and processes required to support the customer service function
- Unacceptable delays in the handling of customer inquiries
- Insufficient call management systems

2. Alternative Solutions

After months of research, we have come to the conclusion that there are two potential solutions to the stated business problem:

2.1 Option 1 - Centralize the Help Desk Function

ST's first and most logical solution is to centralize the entire Help Desk function in one location. Logistically, this would include the following steps:

- Establish a central Help Desk premise and new telecommunications infrastructure.
- Create new customer service processes and procedures.
- Market the new centralized Help Desk to reestablish our brand in the market.
- Set departmental performance standards and key performance indicators.

2.1.1 Benefits

- We will have a common source of customer information.
- We will have one team and one set of standards, processes and systems for the delivery of customer service.
- Customer queues will shorten because with account information readily available, Help Desk staff will be able to resolve queries more quickly.
- Customers will be more satisfied, as service problems are identified and resolved proactively through real-time monitoring of query status and automatic alerts on unresolved problems.
- We will be able to investigate the cause of each customer complaint and take action to ensure that service is improved.

The following tangible benefits will be realized by centralizing the Help Desk function:

Benefit Category	Benefit Description	Benefit Value
Customer	Improved customer satisfaction	\$425,000
	Increased customer retention	\$750,000
Staff	Increased motivation and job satisfaction	\$270,000
	Improved staff retention	\$380,000
	Reduced training costs through reduced employee turnover	\$75,000
Market	Increased market share	\$565,000
	Increased product awareness	\$270,000
Operations	Reduced operating costs	\$250,000
	Reduced coordination of service calls	\$85,000
	Improved management reporting and control	\$95,000
	Improved problem analysis and resolution	\$120,000
Total Benefit Gained		\$3,285,000

Table 1 2.1.1 Benefits

2.1.2 Cost

Expense Category	Expense Description	Expense Value	Expense Type
Premise	Refit of new office space in existing ST premise	\$220,000	Capital
	Installation of new telecommunications equipment	\$80,000	Capital
	New office furniture and office equipment	\$25,000	Capital
	Closure old Help Desk premises	\$10,000	Capital
Personnel	Staff relocation	\$120,000	Capital
	Training and recruitment	\$70,000	Capital
Marketing	Advertising to existing client base	\$250,000	Capital
Operations	Creation of new processes and standards	\$50,000	Capital
	Deployment of new Help Desk system	\$375,000	Capital
	Project Team Manpower	\$463,200	Capital
	Integration of new system with other ST systems	\$120,000	Capital
Total Expense Incurred		\$1,783,200	

Table 2 2.1.2 Cost

2.1.3 Feasibility

Solution	Feasibility Rating	Assessment Method
New premise	9	A suitable premise has already been identified within the ST business. It is currently vacant and already has some of the telecommunications infrastructure required to operate the Help Desk.
New technology	8	Suitable Help Desk technology already exists. One potential system has been successfully trialed and selected as most likely to meet our requirements.
New processes	8	We will implement the processes that are provided with the new Help Desk system. Many other companies in the marketplace have successfully used these processes.
Staff relocation	7	Dissatisfied with the current Help Desk situation, most of the staff will welcome the change; they will continue within their current roles, empowered with the tools and infrastructure needed to perform.

Table 3 2.1.3 Feasibility

2.2 Option 2 - Outsource the Help Desk Function

By fully outsourcing the regional Help Desk functions to an external Help Desk provider, we will relieve the company of the responsibility for managing customer inquiries and complaints. The external provider will, of course, carry the ST brand and answer and resolve customer inquiries on behalf of ST. Customers need not know that they are dealing with an authorized agent rather than an internal ST department. All customer complaints will go directly to ST as well as the Help Desk provider, to enable us to monitor the provider's performance.

2.2.2 Benefits

Benefit Category	Benefit Description	Benefit Value
Customer	Improved customer satisfaction	\$400,000
	Increased customer retention	NA
Market	Increased market share	\$500,000
	Increased product awareness	\$220,000
Operations	Reduced operating costs	\$1,350,000
	Reduced coordination of service calls	\$175,000
	Improved management reporting and control	\$95,000
	Improved problem analysis and resolution	\$120,000
Total Benefit Gained		\$2,860,000

Table 4 2.2.2 Benefits

2.2.3 Costs

Expense Category	Expense Description	Expense Value	Expense Type
Personnel	Redundancy packages	\$650,000	Capital
Marketing	Advertising to existing client base	\$250,000	Capital
Operations	Third party contract for provision of Help Desk	\$1,200,000	Capital
Total Expense Incurred		\$2,100,000	

Table 5 2.2.3 Costs

2.2.4 Feasibility

Solution	Feasibility Rating	Assessment Method
Call Center Provider	7	Several established call center/helpdesk providers are available in the marketplace. We have assessed the capabilities of two such providers through demonstration of their services and reference checks from their client base.
New Processes	5	Communication between customers, the service provider and ST must be seamless. We have not been able to adequately test this process to ensure that calls will be routed to the correct target location.

Table 6 2.2.4 Feasibility

3. Solution Rating

The following table tallies the rating scores we have assigned to each solution and calculates an overall rating score. We have used a simple rating mechanism, representing the information in previous tables with a number between 1 and 10. This enables us to compare the strength of each solution against the assessment criteria listed.

Assessment Criteria	Solution 1 Rating	Solution 2 Rating
Benefits		
* Customer	8	7
* Staff	8	4
* Market	7	7
* Operations	8	7
* Finance	3	2
Costs		
* Personnel	6	3
* Marketing	5	5
* Operations	3	2
Feasibility		
* Technology	7	8
* Personnel	7	3
* Operations	6	5
* Assets	6	5
Total Score	74	58

Table 7 Solution Rating

4. Recommended Solution

Having considered the benefits, costs, feasibility, risks and issues associated with each of the two solutions we identified, We recommend that Option 1 be approved for implementation. This recommendation is based on the following rationale:

- It will result in a substantial improvement in the level of customer service within the business
- It does not require that we lose day-to-day contact with customers to achieve this
- It creates a single management function and a consistent level of service offered to customers
- It supports Help Desk staff morale with career opportunities and a new work environment.

After a thorough analysis of the situation, I recommend that the first option listed be approved for immediate implementation. This option allows us to centrally manage a single Help Desk function and to fully integrate it with the rest of the ST Mobile business.

The total cost of this project is budgeted at \$3.2 million, however we expect that the business will save \$1.3 million per year as a result, providing the ST Board with a three-year Return On Investment. I am seeking the ST Board of Directors' immediate approval for this project and the allocation of funds required to initiate and deliver this project to the business.



Vision

Our Vision is to be, within ten years, one of the largest companies in the Kingdom of Saudi Arabia that provides new and unique services, products and technical innovations related to community service.



Mission

Our Mission serving the community by focusing on the main needs and adapting technology to meet these needs by providing distinguished services to our customers and unique products, which brings benefit and profit to the shareholders

7. Project Charter

Project Name	ST Help Desk		Project Sponsor	Dr Waleed
Start Date	01.03.2021	End Date	30.12.2021	Project Manger Maha Al Solai
Project Objective				
Improve customer support processes efficiency through developing a new call center, renew telecommunications infrastructure. optimize resources required Improve, customer experience and operational excellence				
Project Scope		Project Deliverables		
In Scope: - Customer Support - Change Management to organization - Stakeholder Training		- Redesign Help desk center - Develop customer support knowledge base to improve customer satisfaction - Develop proactive approach for on time customer support. - Develop change management approach		
Risk / Challenges		Assumptions / Dependencies		
- Customer Acceptance. - Procurement/ IT resources availability.		- Customer Data Readiness - Adoption of new systems		
Project Working Stream		Project Milestones		
Menewer Al Muhana Abdulrahman Al Sarhani Ali Zahrani Mousa Bahri Lama Al Solai Mohammed Al Amri Nawaf Ibn Aboud Abdulrahman Al Dhweilie		Item	Description	Date
		1	Scope of Work	Mar
		2	Bidding & Contract	June
		3	System and Office Setup	Sep
		4	Go Live	Oct

Table 8 Project Charter Summary

7.1. Responsibilities

Project Sponsor

- Leading the Project Board as Chairman
- Defining the vision, purpose and objectives of the project
- Approving the requirements, timetable and resources
- Approving the provision of funds and resources
- Authorizing acceptance of the final solution delivered by the project

Project Manager

- Delivering the project on time, within budget and to specification
- Managing project staff, suppliers, customers and all other project stakeholders
- Undertaking the activities required to initiate, plan, execute and close the project successfully

7.2. Implementation Plan

Phase	Overall Approach
Initiation	After this Project Charter document has been approved, we will proceed with the recruitment of the project team by appointing the project sponsor. We will establish an on-site Project Office enabling us to centrally administer and control the project.
Planning	With the team appointed and the Project Office established, we will begin the detailed planning phase of the project. We will create a suite of project planning documentation to specify the detailed tasks, resources, finances and suppliers needed to undertake this project. We will also create plans for project communications, risk management, quality review, and customer acceptance of the deliverables.
Execution	During the Execution phase (the longest phase in this project) we will redesign the help desk office and install new equipment, designing new system, system configuration and installation.
Closure	After completing the new helpdesk office and implementing the new system, the project will be ready for closure. This phase will involve terminating supplier contracts, closing the Project Office, releasing project staff .

Table 9 Implementation Plan

7.3. Schedule

The following schedule describes the key activities and timescales involved in implementing this project.

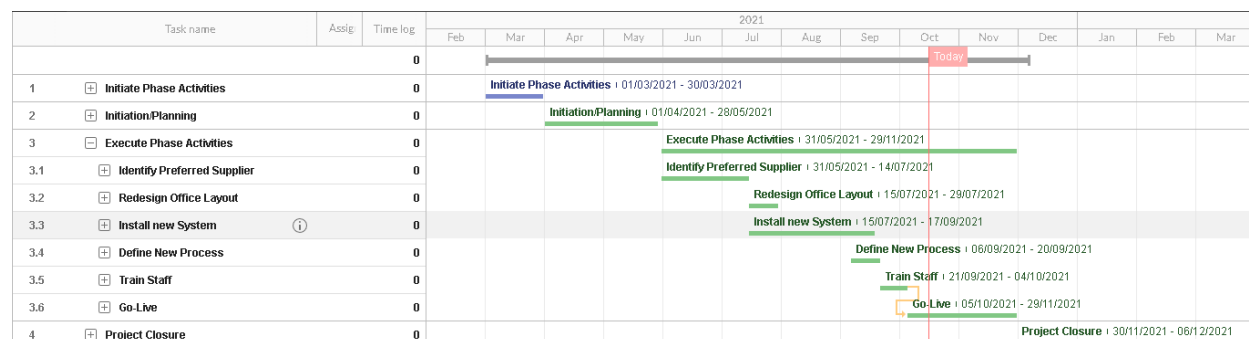


Table 10 Project Schedule Plan

7.4. Financial Plan

Expense Category	Expense Description	Expense Value	Expense Type
Premise	Refit of new office space in existing ST premise	\$220,000	Capital
	Installation of new telecommunications equipment	\$80,000	Capital
	New office furniture and office equipment	\$25,000	Capital
	Closure old Help Desk premises	\$10,000	Capital
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	Deployment of new Help Desk system	\$375,000	Capital
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	Integration of new system with other ST systems	\$120,000	Capital
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Table 11 Project Financial Plan

7.5. Quality Plan

The management processes to be undertaken during this project are summarized in the following table. A detailed Quality Plan will be created later in the Project Planning phase.

Process	Description
Time Management	All staff allocated to this project will record their actual project time using Timesheets. Timesheet information will be summarized in a Timesheet Register and the Project Plan updated weekly.
Cost Management	Expense Forms will be used to record expenses on this project.
Quality Management	Our "Quality Assurance & Control Team" will undertake a suite of reviews throughout the project lifecycle to ensure that the defined quality targets are achieved.
Change Management	Any changes requested within this project must be recorded using a Change Request Form. The Project Manager will be responsible for approving or seeking approval for all change requests.
Risk Management	All project risks will be documented using Risk Forms. The details of each risk will be summarized in a Risk Register to enable the Project Manager to monitor and control the status of risks throughout the project.
Issue Management	All project issues will be documented using Issue Forms. The details of each issue will be summarized in an Issue Register to enable the Project Manager to monitor and control the status of issues throughout the project.
Procurement Management	All project goods and services procured from external suppliers must be reviewed and approved by the project team before the Project Manager will issue payment for related supplier invoices.
Acceptance Management	The customer must approve all deliverables produced by this project in order for the project team to mark it as 100% complete.
Communications Management	The project management team will meet on a weekly basis (at 9:30 am each Monday) throughout the project to discuss progress to date, current risks and issues, and any changes required to ensure project success.

Table 12 Quality Plan

8. Performance Measurement

Customer Perspective

The company seen from the customer viewpoint. Unsatisfied customers will look for the competitors to meet their needs. Customer satisfaction is a lead indicator that can predict potential future loss. Customer support should be meet the customer needs to fix their issues from the first call.

Strategic Objective	Lead Measure	Lag Measure
Reduce operational problems	Hours spent with customer	First Call Resolution (FCR)
Decrease Customer attrition	Improved customer services	Number of customers
Increase customer satisfaction	More Account Management	Customer Satisfaction Score

Table 13 Performance Measurement

9. Organization Structure

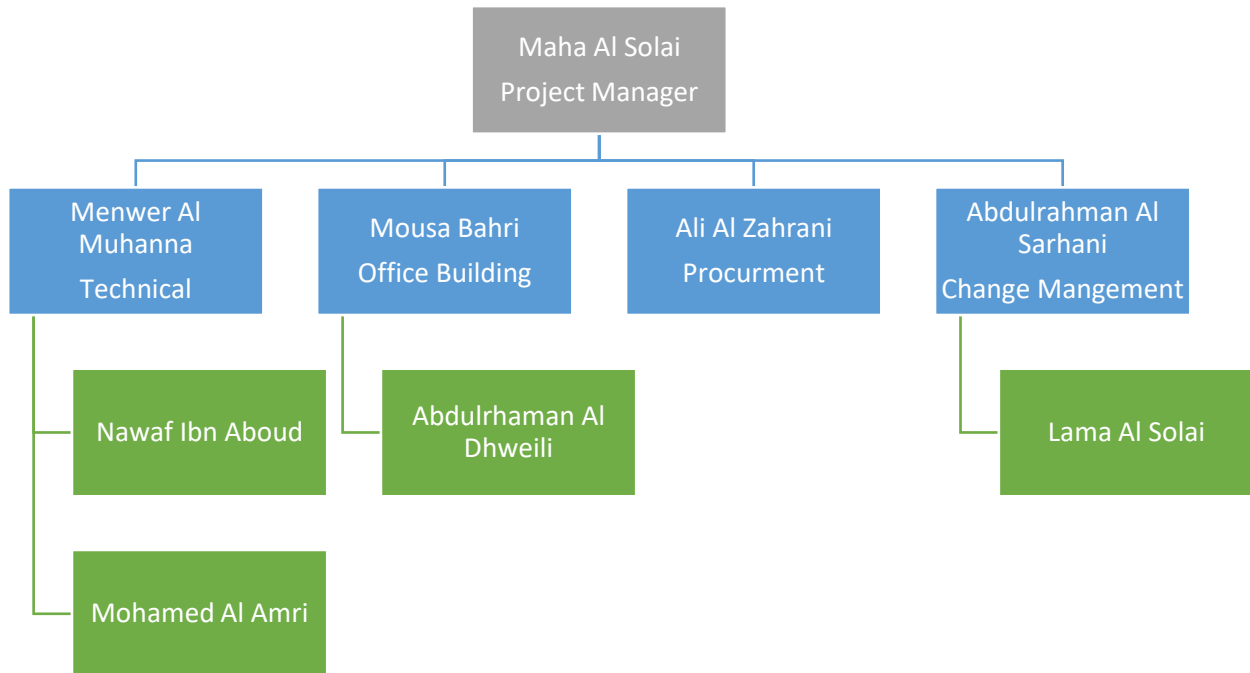


Figure 1 Organization Structure

As a project manager we have to choose the functional organization to run this project. The PMBOK Guide defines functional organizational structure as “An organizational structure in which staff is grouped by areas of specialization and the project manager has limited authority to assign work and apply resources.”

Characteristics:

- Task Divided into functions.
- Functions performed by specialists
- Functions overseen by function heads
- Functions heads enjoy considerable independence

Advantages of this structure is the following:

- Employees are grouped by their knowledge and skills, allowing them to achieve high performance.
- Their roles and responsibilities are fixed, facilitating easy accountability for the work.
- The hierarchy is clear and transparent. This reduces the number of communication channels.

- Communication is frictionless within the department.
- Work is not duplicated, as all departments have defined responsibilities.
- Cooperation is excellent within the department.

Disadvantages

- Conflicts may arise if the performance appraisal system is not properly managed.
- A highly skilled employee costs more.
- Communication is weak among the departments. This causes poor inter-department coordination, affecting flexibility and innovation.
- A lack of teamwork among different departments slows innovation.
- Employees may have little concern or curiosity about events outside their group.
- Decision-making is sluggish due to the bureaucratic hierarchy.
- Functional departments may be more committed to departmental goals rather than organizational goals.
- Employees do not learn any new skills, and their roles don't change often, causing stagnation.

10. PMO Model

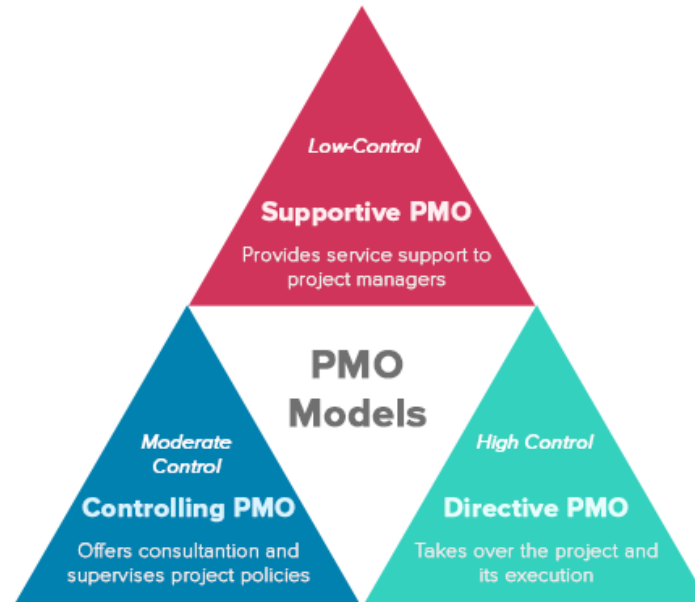


Figure 2 PMO Models

Since the project is been executed by the departmental expertise, the best suited model is Supportive PMO to manage this project.

A supportive PMO acts as a repository to your organization's projects and provides support as and when required. It supplies standard project templates, provides guidance on best practices, conducts training, tracks lessons learned, etc. It plays a consultative role in projects. Its exercises a very low level of control over the projects, and are best suited for organizations with **Functional** or **Weak Matrix** type of Organizational Structure.

Quick points

- Consultative role to projects
- Supplies templates, best practices, training, access to information, lessons learned from other projects.
- Cannot enforce anything on any project
- Low level of control over projects.

11. Project Compliance Check list

It is very important to have a project Compliance checklist before kick starting a project This will help the project team to understand the inputs and outputs of each phase of the project. The below table explains the required process to do this

Phase	Input	Tools & Techniques	Outputs
Develop Project Charter	.Project statement of work Business case .Organizational process assets	.Expert judgment .Facilitation techniques	Project Charter
Project management plan	Project charter Outputs from other processes Organizational process assets	Expert Judgement Facilitation techniques	Project Management Plan
Project Execution Work	Project management plan Approve Change Request Organizational Asset Process	Expert Judgment Meetings Project Management information System	Deliverables Work Performance Data project Management Plan updates Project Document updates
Project Monitor and Control	Project Management Plan Schedule forecasts Cost forecast Validated Changes Work Performance information organizational Process Assets	Expert Judgement Analytical techniques Project Management system Meetings	Change requests Work Performance Reports Project Management Plan Update Project Management documents update
Manage Project Knowledge	Project management plan Project documents Deliverables Enterprise environmental factors	Expert judgment Knowledge management Information management Interpersonal and	Lessons learned register Project management plan updates Organizational

Phase	Input	Tools & Techniques	Outputs
	Organizational process assets	team skills	process assets updates
Procurement Management Plan	Project charter Business documents Project management plan Project documents Enterprise environmental factors Organizational process assets	Expert judgment Data gathering Data analysis Source selection analysis Meetings	Procurement management plan Procurement strategy Bid documents Procurement statement of work Source selection criteria Make-or-buy decisions Independent cost estimates Change requests Project documents updates Organizational process assets updates
Project Closure	Inputs Project charter Project management plan Project documents Accepted deliverables Business documents Agreements Procurement documentation Organizational process assets	Expert judgment Data analysis Meetings	Project documents updates Final product, service, or result transition Final report Organizational process assets updates

Table 14 Project Compliance Check list

12. Project Check list Plan

1. As a project management team we have developed Check List model for the three stages of the project (Start- Plan- Execute-Close).
2. The Project Planning Checklist is used for all Project Plan templates and deliverables identified in the project delivery model.
3. The Project Manager (PM) should fill out the “PM Column (Y/N/NA)” prior to handing the checklist to the Quality Control Reviewers. If the PM response to a question is No or Not Applicable (NA), please provide an explanation.

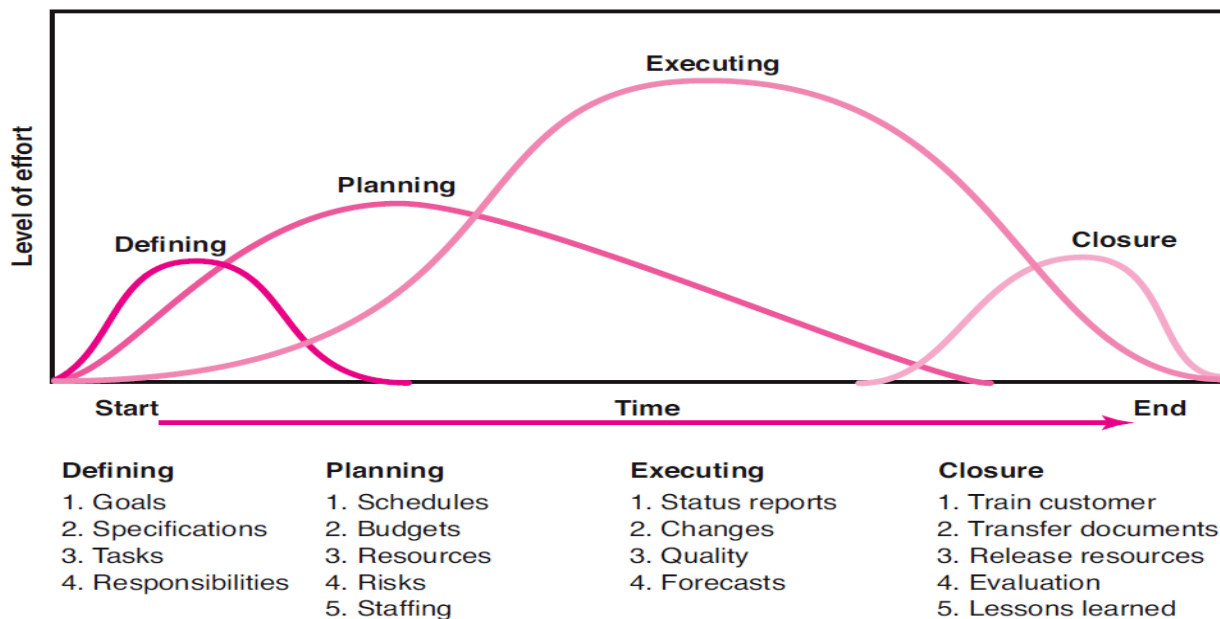


Figure 3 Project Life Cycle

13. Project Review Detailed Checklist for the Project Stages

Project Plan Review Checklist			
Project Name	Service Call Center		
Reviewer Name	Ali Al Zahrani – Menwer Al Muhanna		
Project Manger	Maha Al Solai		
ID	Yes/No/NA	Items to be considered	PM Column (Y/N/NA)
Overall Project Plan Questions			
1.	Y	Have all required sections been addressed in the Project Plan?	Y
2.	Y	Deliverables Identified?	Y
Project Scope Questions			
3.	Y	Scope clearly defined?	Y
4.	Y	Scope consistent with Initial Scope in Project Charter?	Y
5.	Y	Project Approach defined?	Y
6.	Y	Are the baseline requirements numbered or easily identifiable for use in a requirements traceability matrix (RTM)?	Y
7.	Y	Project Assumptions addressed?	Y
8.	Y	Project Constraints addressed?	Y
9.	Y	Risk Identified?	Y
Project Schedule (WBS)			
10	Y	Is there a clear WBS?	Y
11	Y	Is the project schedule structured into overview and sub-phases?	Y
12	Y	Are dependencies identified in the plan?	Y
13	Y	Is there a Gantt chart?	Y
14	Y	Has task duration been estimated?	Y
15	Y	Has work effort been estimated?	Y
16	Y	Have the estimates been supplied by or validated by the resource assigned to it?	Y
17	Y	Has PM effort been included in the plan? Y/N	Y
18	Y	Has the Cost Estimates (Budget) been calculated from the WBS?	Y

ID	Yes/No/NA	Items to be considered	PM Column (Y/N/NA)
Management Plan Questions			
Project Organization Questions			
19	Y	Does the project organization have representation for management, functional office and business unit/section?	Y
20	Y	If the project needs District participation, are there District people in the project organization?	Y
21	Y	Are roles defined?	Y
Estimate/Schedule/Resource Questions			
22	Y	Baseline Estimate established? Estimate method defined?	Y
23	Y	Have key milestones & dates been identified in the plan? These are the key points at which they project will be reviewed for performance?	Y
24	Y	Baseline Schedule established? Match major milestone date with Project Charter and work breakdown structure (if applicable)	Y
25	N	Project > 600hours? Work Breakdown Structure included?	N
Change Management Questions			
26	Y	Change Management process defined?	Y
27	Y	Project Change Control Team (CCT) members identified?	Y
28	Y	Frequency of CCT meetings defined?	Y
29	N	Have a change Log?	N
Issue Management Questions			
30	Y	Issue management process defined?	Y
31	Y	Issue escalation process identified?	Y
32	Y	Have Issue Log?	Y
Risk Management Plan Questions			
33	Y	Risk Management process defined?	Y
34	Y	Project Risk Review Team (PRRT) members identified?	Y
35	Y	Frequency of PRRT meetings defined?	Y
36	Y	Risk Register Initiated?	Y
37	Y	Risk Response Strategy established for each identified risk	Y
38	NA	Has the Risk Tolerance Threshold been established for the project?	NA

ID	Yes/No/NA	Items to be considered	PM Column (Y/N/NA)
39	NA	Is there a Risk Item form or equivalent present, for each risk identified that has a risk severity rating $\geq$ the project risk tolerance threshold?	NA
Quality Management Plan Questions			
40	Y	Quality Management Process defined?	Y
41	Y	QC Reviews identified for deliverables established/addressed in project plan?	Y
Communication Management Plan Questions			
42	Y	Communication plan established	Y
43	Y	Status reports addressed (frequency, audience)	Y
44	Y	Project Distribution groups identified	Y
Configuration Management Plan Questions			
45	Y	Application documents that will be controlled identified? (Requirements, System Design, etc)	Y
46	Y	Project Documents that will be controlled identified (Project Charter, Project Plan, etc)	Y
Project Execution Questions			
48	Y	Were transition activities performed as planned in the Transition Plan?	Y
49	Y	Is the operations side environment prepared and ready to receive deliverables (facilities, equipment, people,...)?	Y
50	Y	Has training been given to users and support teams?	Y
51	Y	Are deliverables available to the requestor side?	Y
52	Y	Are operational/maintenance activities ready to start?	Y
53	Y	Is all project supporting documentation delivered to the Project Owner (PO) and operations teams?	Y
54	Y	Are deliverables fully operational?	Y
55	Y	Is support being given to the requestor side?	Y
56	Y	Is there a formal transfer of responsibilities to the Project Owner (PO) and operations teams?	Y
Project Closeout Questions			
57	Y	Does project have close out plan?	Y
58	Y	Is the training material documented?	Y
59	Y	If project is delivering an application, does the project have a transition to maintenance plan?	Y

ID	Yes/No/NA	Items to be considered	PM Column (Y/N/NA)
60	Y	Is the Acceptance Criteria Clearly Defined	Y

Table 15 Project Review Checklist for the Project Stages

14. Stakeholder Register

The stakeholder register, or registry, is one of the essential project management documents, It contains important information on your project holder.

According to the PMBOK Guide, “A stakeholder can be a person, a group, or an organization that may be affected, or have any interest in the project, or the project’s outcome; either directly or indirectly.”

A stakeholder register is a project document with pertinent information about the project stakeholders. It identifies the people, groups, and organizations that have any interest in the project or its outcome.

Name	Role	Requirements Expectations	or Interest	Power
Dr Waleed	Project Sponsor	Administers project finances, approves ideas and changes, participates in making key decisions	★ ★ ★	★ ★ ★
Maha Al Solai	Project Manager	Plan and Develop the Project efforts, Create and Lead project resources, Monitor Project Progress and Set Deadlines, Solve Issues That Arise.	★ ★ ★	★ ★ ★
Menewer Al Muhana	Technical lead	Plan and supervise the technical activities, report progress, Help Redesign Help desk center	★ ★ ☆	★ ★ ☆

Name	Role	Requirements Expectations	or Interest	Power
Abdulrahman Al Sarhani	Change management lead	Plan and supervise change management activities. Analysis of operational changes and asses the change impact. Develop change management approach	★ ★ ☆	★ ★ ☆
Ali Zahrani	Procurement	Purchase supply of products/materials, infrastructure requirements. Determine the lowest cost for products/materials. Track and record orders.	★ ☆ ☆	★ ★ ☆
Lama Al Solai	Change management staff	Information transfer and documentation of process changes. Communication with the affected employees.	★ ★ ☆	★ ☆ ☆
Mohammed Al Amri	Technical engineer	Help to Impelement call center topology as planned, report progress, help in Staff Training	★ ★ ☆	★ ☆ ☆
Nawaf Ibn Aboud	Technical engineer	Test the new design and implementation and help with team training and implement change requests	★ ★ ☆	★ ☆ ☆
Mousa Bahri	Office building lead	Facilitate the new design requirements and the new seating plan,	★ ☆ ☆	★ ★ ☆
Abdulrahman Al Dhweilie	Office building staff	Facilitate infrastructure requirements for the new topology	★ ☆ ☆	★ ☆ ☆

Table 16 Stakeholder Register Table

Influence / Interest Network

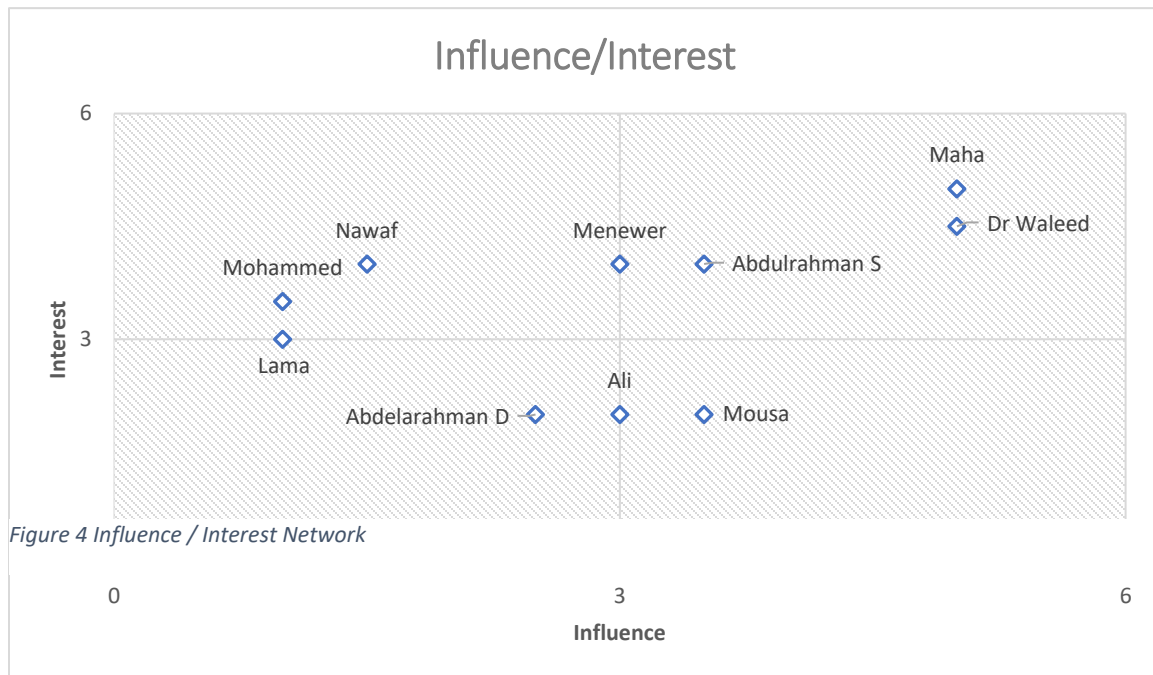
Key stakeholders are those who can significantly influence, or are important to the success of, the project.

Influence is the power which stakeholders have over a project - to control what decisions are made, facilitate its implementation, or exert influence which affects the project negatively.

Influence is perhaps best understood as the extent to which people, groups or organizations (i.e. stakeholders) are able to persuade or coerce others into making decisions and follow certain courses of action.

Importance indicates the priority given by you to satisfying stakeholders' needs and interests through the project. Importance is likely to be most obvious when stakeholder interests in a project converge closely with your objectives.

Importance and influence can be combined by using a matrix diagram. This is done by positioning stakeholders in relative terms according to the two broad criteria in a two-by-two matrix. This exercise in positioning will indicate relative risks posed by specific stakeholders, and the potential grouping of support for the project.



Strength/ Interest Network

The power/interest grid is a matrix used for categorizing stakeholders during a change project to allow them to be effectively managed. Stakeholders are plotted on the grid in relation to the power and interest they have in respect of the project. The grid categorizes stakeholders into the following four groups:

- High power/high interest
- High power/low interest
- Low power/high interest
- Low power/low interest

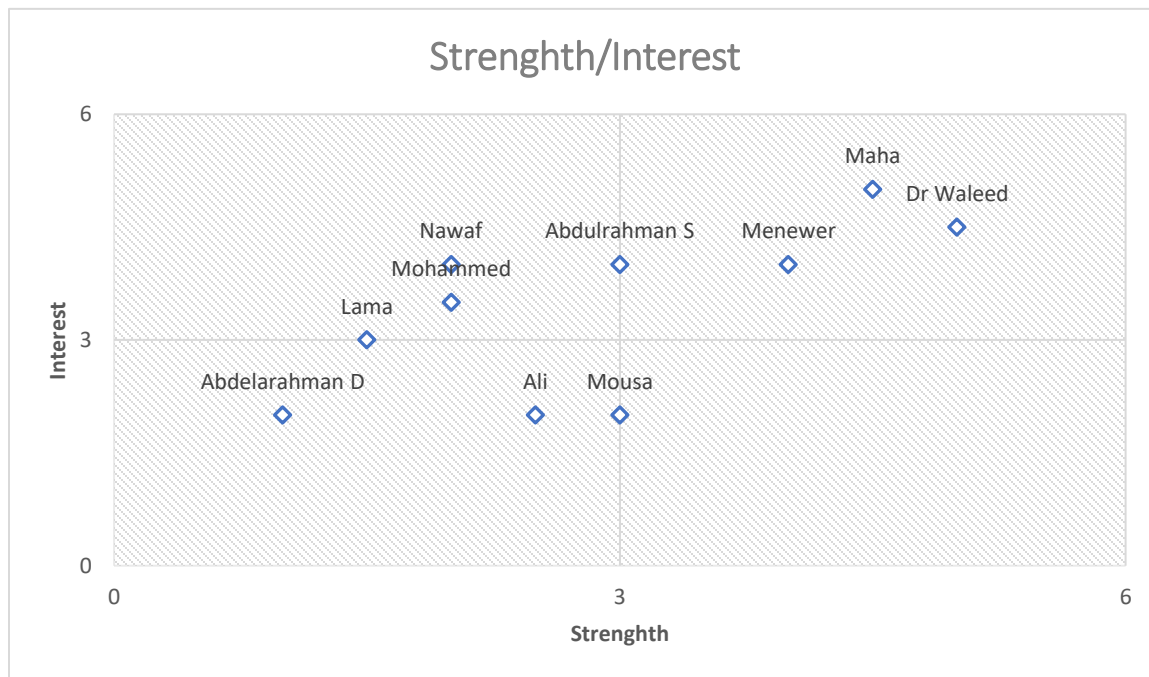


Figure 5 Strength/ Interest Network

15. Stakeholder Register Logical Diagram

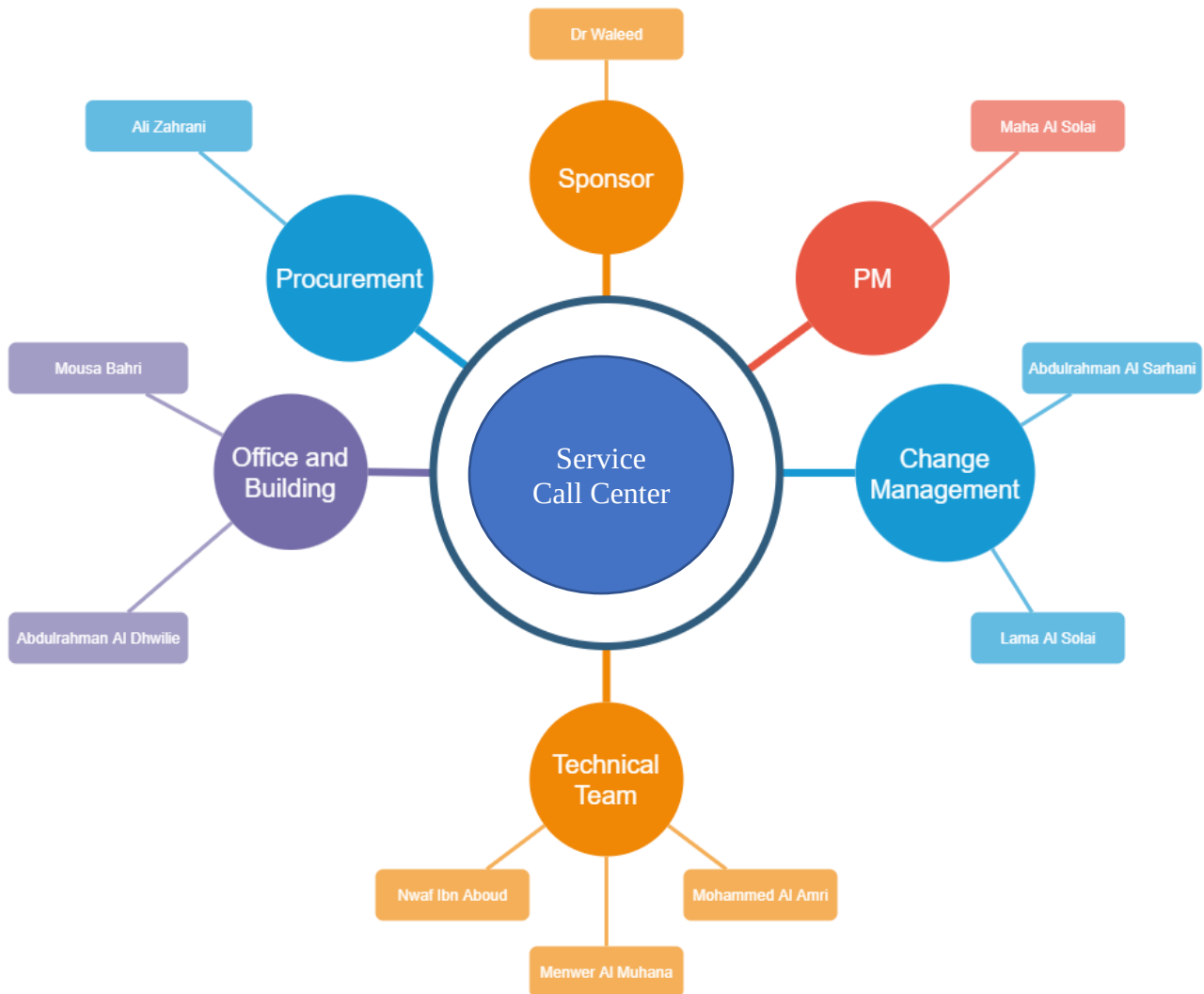


Figure 6 Stakeholder Register Logical Diagram

16. Stakeholder RACI

The RACI matrix is a responsibility assignment chart that maps out every task, milestone or key decision involved in completing a project and assigns which roles are Responsible for each action item, which personnel are Accountable, and, where appropriate, who needs to be Consulted or Informed. The acronym RACI stands for the four roles that stakeholders might play in any project.

RACI matrix roles and responsibilities

The RACI model brings structure and clarity to describing the roles that stakeholders play within a project. The RACI matrix clarifies responsibilities and ensures that everything the project needs done is assigned someone to do it.

The four roles that stakeholders might play in any project include the following:

- **Responsible:** People or stakeholders who do the work. They must complete the task or objective or make the decision. Several people can be jointly Responsible.
- **Accountable:** Person or stakeholder who is the "owner" of the work. He or she must sign off or approve when the task, objective or decision is complete. This person must make sure that responsibilities are assigned in the matrix for all related activities. Success requires that there is only one person Accountable, which means that "the buck stops there."
- **Consulted:** People or stakeholders who need to give input before the work can be done and signed-off on. These people are "in the loop" and active participants.
- **Informed:** People or stakeholders who need to be kept "in the picture." They need updates on progress or decisions, but they do not need to be formally consulted, nor do they contribute directly to the task or decision.

How to create a RACI matrix

- Identify all the tasks involved in delivering the project and list them on the left-hand side of the chart in completion order.
- Identify all the project stakeholders and list them along the top of the chart.
- Complete the cells of the model identifying who has responsibility, accountability and who will be consulted and informed for each task.
- Ensure every task has at least one stakeholder Responsible for it.
- No tasks should have more than one stakeholder Accountable. Resolve any conflicts where there is more than one for a particular task.
- Share, discuss and agree the RACI model with your stakeholders at the start of the project. This includes resolving any conflicts or ambiguities.

After completing those activities as a project team, we have developed the below RACI:

Name	Redesign	Supplier Acceptance	Procurement	Change management	Training	Implementation	Office setup	Technical
Dr Waleed	I	C	I	C	I	I	I	I
Maha Al Solai	C	C	I	C	I	I	I	C
Menewer Al Muhana	R	R	I	I	A	R	I	R
Abdulrahman Al Sarhani	I	I	I	A	I	I	I	C
Ali Zahrani	C	R	R	I	I	I	I	I
Lama Al Solai	I	I	I	R	I	I	I	C
Mohammed Al Amri	I	I	I	I	R	R	I	R
Nawaf Ibn Aboud	I	I	I	I	R	R	I	R

Mousa Bahri	C	R	C	I	I	I	A	I
Abdulrahman Al Dhweilie	I	I	I	I	I	I	R	I

Table 17 Stakeholder RACI

17. Culture and Values

We at SPEED TELECOM have decided to make the Help Desk team have a distinct culture different from other departments in order to strengthen the relationship within the team and to increase productivity and achieve the goals of the organization and from some of the initiatives that will help create a positive culture for the team

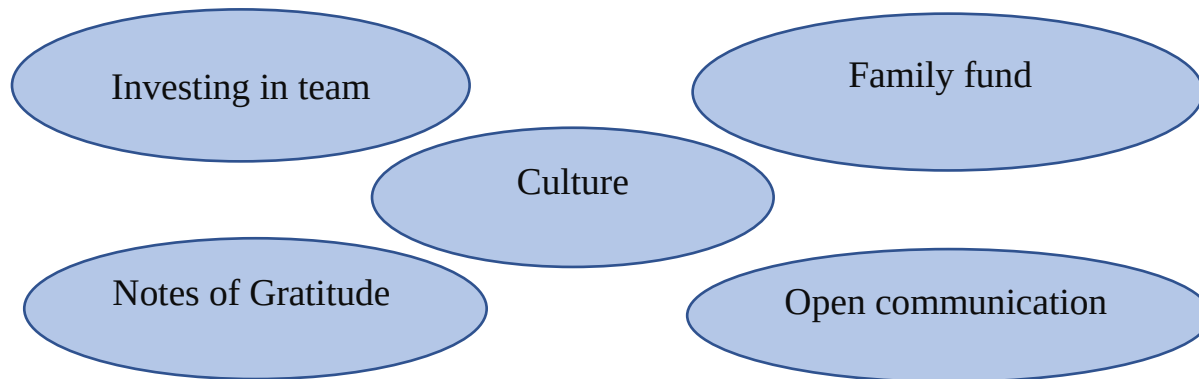


Figure 7 Culture and Values

- **Family fund :** speed telecom provides emergency financial support for employees during times of need. It's funded through voluntary paycheck deductions from corporate employees. The Family Fund has assisted team members in paying for temporary housing due to a fire and has also helped assist an employee who needed to travel to care for a sick loved one.
- **Notes of Gratitude:** Employers host a "Gratitude Night" to thank employees for making a positive impact on their customers. The corporate office reviews letters sent in from happy customers and writes personal, handwritten notes to employees who have helped these customers. This type of event highlights employee achievement and gives them some public recognition for their hard work.
- **Open communication:** open communication helps build trust in the organization and sows the seeds of transforming employees into co-entrepreneurs.

- **Investing in team:** can afford organizations a myriad of benefits, including improving employee retention and productivity. Your company culture and environment play an important role in obtaining the best possible employees... and in keeping them around

18. Self-reflection and self- management

1. Personal behaviors of the student that can influence on the project.

- Poor Communication .
- Negativity.
- Failure to provide constructive feedback.

2. Study such behaviors, identify their reasons, and how they can be eliminated.

- **Poor Communication**

Poor communication occurs when people share information in an improperly complex or rushed manner. It can happen even at every level of an organization. For instance, people may not understand one another and rely on assumptions.

There are many ways to fix poor communication, and this is one of them

Confirm and Clarify

Like any important message, follow-up messages should confirm what you are communicating. Additionally, this is also an opportunity to ask for more details if needed. These messages clear up misunderstandings, which prevent future headaches. As a rule of thumb, know it's never safe to assume what someone is saying, especially when so much communication now happens through written messages. A quick follow-up is all it takes to catch a possible mistake.

Make Meetings Count

Most people don't like attending meetings. As much as it may be tempting to eliminate them, some meetings are necessary to ensure things get done on time.

Meetings are where a lot of important communication is shared, so getting them right is a vital part of any company strategy. When meetings do happen, make sure they're carried out efficiently, with clearly stated goals and plans of action. In addition to this, emphasize getting everyone on the same page and allow time for questions

- **Negativity**

1. **Tackle Genuine Problems**

Are there continual complaints about something that's actually a problem? While it can be irritating to hear employees complaining about what seems like a minor issue, if something is affecting their work or morale, it's important to address it.

Even if you can't make a wholesale change, you might be able to reduce the impact of the problem. For instance, if several people seem to be struggling with a particular process or task, perhaps implementing a collaboration tool or offering additional training will help

- **Failure to provide constructive feedback**

There is a proper way to train people and a helpful way to give feedback. Crushing a person is rarely a constructive pathway to strong teamwork.

19. Model for Help Desk team.

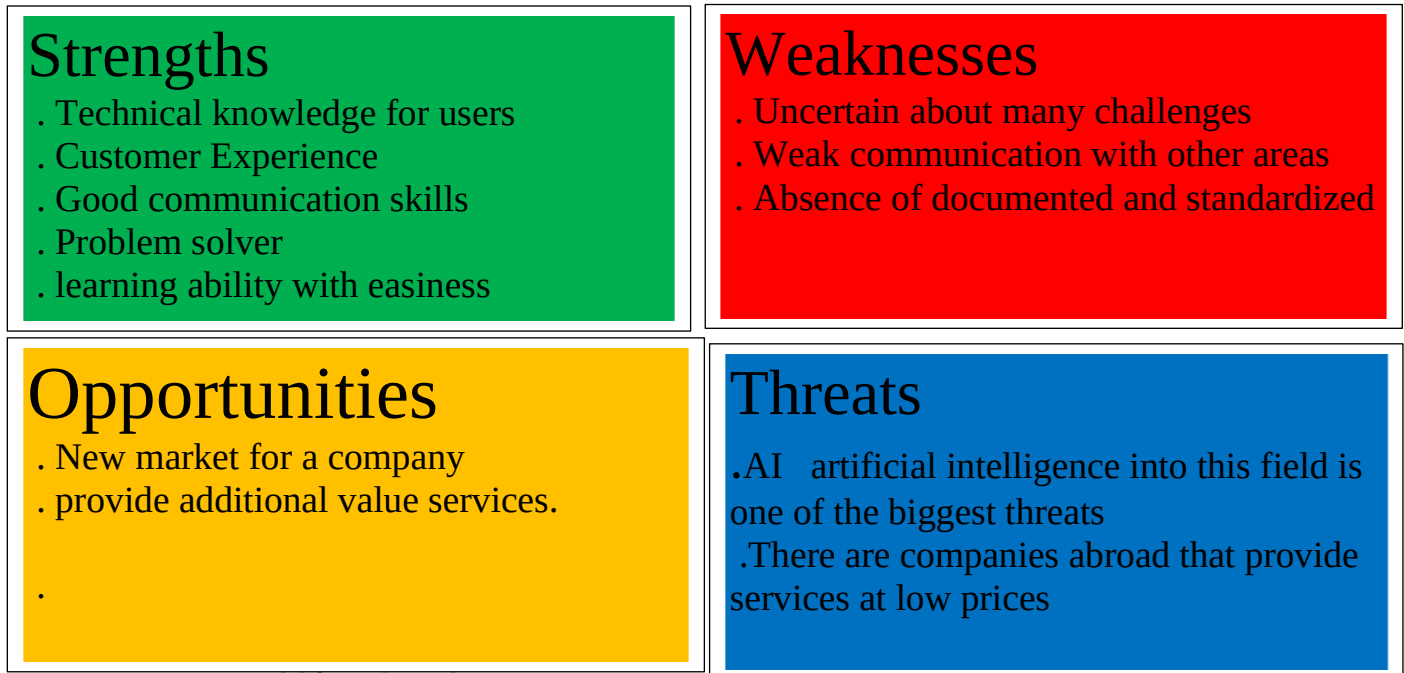


Figure 8 SWOT model for Help Desk team.

20. Stakeholder Register

The stakeholder register, or registry, is one of the essential project management documents, It contains important information on your project holder.

According to the PMBOK Guide, “A stakeholder can be a person, a group, or an organization that may be affected, or have any interest in the project, or the project’s outcome; either directly or indirectly.”

Managing stakeholders is vital for your project because if your stakeholders are not happy, your team will struggle and your project won’t succeed.

Name	Role	Requirements Expectations	or Interest	Influence
Dr Waleed	Project Sponsor	Administers project finances, approves ideas and changes, participates in making key decisions	High	High
Maha Al Solai	Project Manager	Plan and Develop the Project efforts, Create and Lead project resources, Monitor Project Progress and Set Deadlines, Solve Issues That Arise.	High	High
Menewer Al Muhana	Technical lead	Plan and supervise the technical activities, report progress, Help Redesign Help desk center	Mid	Mid
Abdulrahman Al Sarhani	Change management lead	Plan and supervise change management activities. Analysis of operational changes and asses the change impact. Develop change management approach	Mid	Mid

Ali Zahrani	Procurement	Purchase supply of products/materials, infrastructure requirements. Determine the lowest cost for products/materials. Track and record orders.	Low	Mid
Lama Al Solai	Change management staff	Information transfer and documentation of process changes. Communication with the affected employees.	Mid	Low
Mohammed Al Amri	Technical engineer	Help to Impelement call center topology as planned, report progress, help in Staff Training	Mid	Low
Nawaf Ibn Aboud	Technical engineer	Test the new design and implementation and help with team training and implement change requests	Mid	Low
Mousa Bahri	Office building lead	Facilitate the new design requirements and the new seating plan,	Low	Mid
Abdulrahman Al Dhweilie	Office building staff	Facilitate infrastructure requirements for the new topology	Low	Low

Table 18 Stakeholder Register

21. Personal communication and effective communication:

Personal communication is an exchange of information between two or more people. It is also an area of research that seeks to understand how humans use verbal and nonverbal cues to accomplish a number of personal and relational goals, it can also be extended to include groups such family and friends. Personal communications may include private letters, memos, some electronic communications (like e-mails), personal interviews, telephone conversations as well as through platforms such as social media.

Effective communication is defined as communication between two or more persons in which the intended message is properly encoded, delivered through appropriate channel, received, and properly decoded and understood by the recipients

In other words, communication is said to be effective when all the parties (sender and receiver) in the communication, assign similar meanings to the message and listen carefully to what all have been said and make the sender feel heard and understood.

"Effective communication is the process of sending a message in such a way that the message received is as close in meaning as possible to the message intended".

R.W. Griffin

22. Personal Communication Shapes, models and channels

Shapes of communication

There are several different ways we share information with one another,

1. Verbal

Verbal communication is the use of language to transfer information through speaking or sign language. It is one of the most common types, often used during presentations, video conferences and phone calls, meetings and one-on-one conversations. Verbal communication is important because it is efficient. It can be helpful to support verbal communication with both nonverbal and written communication.

2. Nonverbal

Nonverbal communication is the use of body language, gestures and facial expressions and even voice tone used to convey information to others. It can be used both intentionally and unintentionally. Nonverbal communication is helpful when trying to understand others' thoughts and feelings.

3. Written

Written communication is the act of writing, typing or printing symbols like letters and numbers to convey information. It is helpful because it provides a record of information for reference. Writing is commonly used to share information through books, pamphlets, blogs, letters, memos and more. Emails and chats are a common form of written

4. Visual

Visual communication is the act of using photographs, art, drawings, sketches, charts and graphs to convey information. Visuals are often used as an aid during presentations to provide helpful context alongside written and/or verbal communication. Because people have different learning styles, visual communication might be more helpful for some to consume ideas and information.

23. Communication methods:

- Push. Communication sent to stakeholders such as memos, emails, status reports, voice mail, and so forth. Push communication is used for one-way communications with individual stakeholders or groups of stakeholders. Push communication inhibits the ability to immediately gauge reaction and assess understanding; therefore, it should be used deliberately.
- Pull. Information sought by the stakeholder, such as a project team member going to an intranet to find communication policies or templates, running internet searches, and using online repositories. Pulling information is used for indirect sensing of stakeholder concerns.
- Interactive or Engagement communication goes deeper than pushing or pulling communication. It includes an exchange of information with one or more stakeholders such as conversations, phone calls, meetings, brainstorming, product demos, and the like. With all forms of communication, quick feedback loops provide useful information to confirm the degree to which the stakeholders heard and understood the message, determine if stakeholders agree with the message, and identify nuanced or other unintended messages the recipient detected.

The Communication Models

The purpose of a “model” is to offer a visual representation of a concept with the intent of facilitating the understanding of it. Traditionally speaking, there are three standard models of the communication process: Linear, Interactive, and Transactional, and each offers a slightly different perspective on the communication process.

- Linear Communication Model

It is a one-way communication, where a sender encodes a message via a channel and the receiver decodes the message. It is straight-line communication found typically in mass communication; like television, radio, newspapers, etc. According to this model, there is no means for immediate feedback.

- Interactive Communication Model

It is a two-way that included a message and feedback, where the sender encodes and send the communication message via the channel and receiver decode the and then decode and send his reply or feedback message. The same thing happens during a telephone call, or even an email exchange. A message is sent and received, and then the roles reverse.

- Transactional Communication Model

The Transactional Model becomes more sophisticated yet. This model depicts face-to-face interaction, or “trans-action” as a dynamic and changeable. In the Transactional Model, receiver and sender can play the same roles simultaneously, as sometimes happens, as messages can be sent back and forth simultaneously. It appears chaotic and ineffective, but sometimes communication is just that.

24. Project communication matrix

Communication	Purpose	Channel	Frequency	Audience
Kickoff meeting	Introduce the project high level plans, objectives and goals	In person	once	Project team, Sponsor, Stakeholders
Project Team meetings	Review status of the project	Physical meeting or conference call	Weekly	Project team
Technical Meetings	Discuss, review technical aspects and raise technical problem and solutions	Physical meeting or conference call	As needed	Technical and creative team
Project Status Meetings	Update leadership on project status	Physical meeting or conference call	Monthly	Project manager, stakeholder
Status reports	Detailed report on project status including progress, cost, risks and issues	Email	Weekly	Project manager, stakeholder

Table 19 Project communication matrix

25. 3 wrong scenarios of the communication

- **Using wrong communication channel**, like when you send a formal communication through an informal channel like social media or using nonverbal communication type that may not be delivered, understood and be documented properly, choosing the right media and from of communication to propagate the message is important to the quality of delivering a formal message, on the other hand delivering an informal (or friendly) communication message should not be using emails, presentation or infographic for example.
- **Sending to the wrong audience**, communicating a message should consider the right audience and only the needed ones, sending to the wrong receiver could lead to data leakage and wasting audience time.
- **Wrong communication timing**, timing is one of the most critical communication efficiency parameter, delivering a message late will lead to missing the a goal, deadline or even an opportunity and also losing the goal of sending this message.

26. Stakeholder Assessment matrix

Influence	High	Meet their needs	Key players
		• Customer • Sponsor • Change mngt • Legal dept	• Project manager • Executives • BA

	Low	Leas important • Office building rep • Procurement • Help desk • System admin	Show consideration • Supplier • Internal user • Trainers • Developers • Testers
		Low	High
		<u>Interest</u>	

Figure 9 Stakeholder Assessment matrix

27. Behaviors contradict the moral integrity

The busyness of a project manager's day-to-day business means problems are often brushed aside with the hope that they will just disappear – which they rarely do.

Here we list some of the most common problems that project teams face. By confronting these – and therefore improving project outcomes – you can boost your own career, while working better together benefits everyone on the team.

Badly perceived, not delivering

A project team has a brand, an image and a reputation created by the actions and behaviors of the team members. A large part of the perception is driven by how well the team delivers on expectations and promises made. As a project team, you need to make sure that everyone understands and takes responsibility for their roles in creating the perception of the team. This includes both what is delivered on the project and how it is delivered.

Lack of trust

Trust is crucial to teamwork, and it starts with people knowing each other. Team members absolutely need to be acquainted, both professionally and personally, particularly in projects where tensions will run high at some point. Otherwise,

members won't understand each other, they won't want to engage because they haven't made that human connection and they won't fully trust each other.

Conflict and tension

Conflict or a difference of opinion can be healthy and, if carefully managed, can trigger useful debates. It can make people think differently, expanding knowledge and insight; innovation can happen and results flourish. Different opinions are not a bad thing. It's how we handle the conflict that makes a difference.

The Impact of Bad Behavior

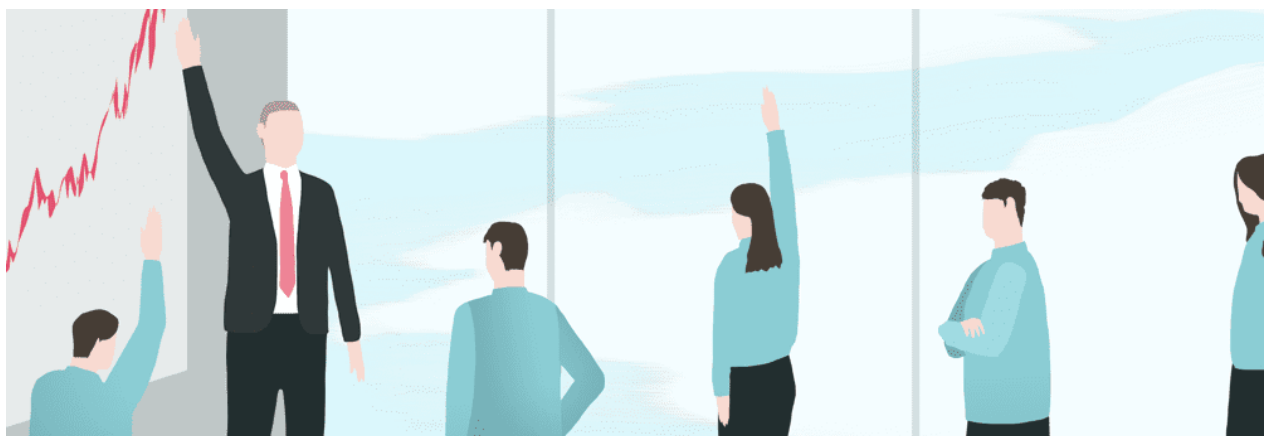
At a personal level, you can suffer negative effects from someone else's bad behavior, even if you're not the direct target.

At an organizational level, bad behavior can have a tangible impact on profitability. Missed objectives and declining productivity mean diminished profitability. You may find that you face increased sick days, as team members try to escape the bad behavior, or are sucked into it. Another possible consequence may be higher staff turnover, with all of the cost and time involved in hiring and training new people.

28. Project Leadership Style

Project management leadership is important because effective leaders motivate their teams to efficiently achieve project goals. Optimal project management leadership contributes to a culture that promotes performance and success. A project manager motivates their team by making effective project management decisions, such as structuring team roles to capitalize on the skills of individual members and defining clear, attainable goals throughout the course of a project. Project managers can develop effective leadership skills by building relationships with team members, practicing proper communication, maintaining flexibility and displaying dependability. We at SPEED TELECOM have choose the Democratic leadership style.

Democratic leadership style invites team input and feedback on decisions. This leadership style values group discussions, collaboration and teamwork. It promotes a work environment where team members feel encouraged and empowered because it values their voices and contributions. A workplace environment where the democratic leadership style is effective may include one that produces creative work. When members of a creative project have some form of ownership when producing creative content, they may feel more motivated to contribute. There fore this is the best style to be used in this project since the team meet for the first to time complete this project.



29. Project Motivation Methods

As a project manager or leader, you must be able to motivate and encourage people around you so that you have a happy and productive team.

Naturally, you cannot control each employee's attitude towards their work, but strategies do exist to motivate and excite your team, below you will find some methods has been developed to increase the motivation during the project:

No.	Method	Clarification
1	Be clear and direct	Once you have set a timeline and some realistic goals for the project, make sure your team members are aware of their workload and deadlines and that you communicate this clearly. Be receptive to their concerns and come to a unanimous agreement about how the project should go forward.
2	Catch up with your team members	Conduct a weekly or bi-weekly catch up session to see how your team members are doing with their work. If they know that they have to show evidence of some progress each week, they will be more motivated to make sure they are following deadlines and working consistently. It will also nurture opportunities for discussion and collaboration, and address problems as they arise.
3	Get excited about the project	Highlight the benefits of the work to your team members. Elaborate on how the project is benefiting your company and how it fits in with the wider ambitions of the department and business as a whole. This will help your team members get a detailed understanding of what the project is, why it is important, and the value of their role in regard to the end goal.

4	Keep a clear line of communication	When managing a project team, it is crucial that you maintain a good line of communication with all stakeholders. Make sure you have several ways in which your team members can contact you so that communication remains fluid and accessible. These can include: • Email • In-person contact • Instant message If one form of communication fails, there will still be many other ways to reach you. This will help make sure that your team is feeling supported as you complete the project.
5	Offer praise for good work	Keep up a constant flow of positive feedback for small victories and it will help keep your team feeling motivated and valued. Offer compliments to employees that you feel have gone above and beyond, and make sure you commend them in front of your team so that other staff are inspired and can see the results of hard work. Break up long weeks with lunches, coffee or drinks at the end of the day to reward your team. These are small moments where your staff can feel more appreciated and good working relationships solidify.

Table 20 Project Motivation Methods

30. RACI Model for Administrative Measures.

The RACI technique has been designed to identify functional areas, key activities and provides management with decision points where ambiguities exist.

The approach enables management to actively participate in the process of systematically describing:

- activities
- decisions to be accomplished
- clarity of responsibilities

Item	Project Manger	Tech Lead	Procurement	CM Team	Team Members
Project Deliverable					
Initiate Phase Activities					
Request Review by PMO	R/A	A/C			
Submit Project Request	R/A				
Defining and engaging stakeholders	R/A	A/C			
Interpreting business goals and translating those goals into service standards	R/A	C	C	C	C
Reviewing market developments in supply markets	A		R		
Research Solution	R/A	A/C	A/C	A/C	A/C
Develop Business Case	R/A	A/C	A/C	A/C	A/C
Plan Phase Activities					
Create Project Charter	R/A	C	C	C	C
Appoint Project Team	R/A	C	C	C	C
Create Schedule	R/A	C	C		
Create Budget	R/A	C	C		

Item	Project Manger	Tech Lead	Procurement	CM Team	Team Members
Create WBS plan	R/A				
Contract the supplier.	C	I	R/A	I	I
Execute Phase Activities					
Build Deliverables		R/A	R/A	R/A	R/A
<i>Identify Preferred Supplier</i>	I/C	I/C	R/A		
Issue RFP	I/C	I/C	R/A		
Issue Contract	I/C	I/C	R/A		
Deliver Products	I/C	I/C	R/A		
Deliver Services	I/C	I/C	R/A		
Review Supplier Performance	I/C	I/C	R/A		
<i>Redesign Office Layout</i>	A	R/A	C	I	I
Design Office Layout	A	R/A	C	I	I
Rebuild Office Layout	A	R/A	C	I	I
<i>Install new System</i>	A	R/A	C	I	I
Design System Configuration	A	R/A	C	I	I
Configure Machine	A	R/A	C	I	I
install system	A	R/A	C	I	I
Install operating machines	A	R/A	C	I	I
<i>Define New Process</i>	C	A/C		R	R/A
Create Operator Process	I/C	I		R	R/A
Create Maintenance Process	I/C	I		R	R/A
<i>Train Staff</i>	I/C	I		R	R/A
Retrain Contact Center Operators	I/C	I		R	R/A
Conduct Change Management	I/C	I		R	R/A
Closer					
Complete Documentation of process and activities	R/A	C	C	C	C
Create Lessons Learned	R/A	C	C	C	C
Perform Project Closure	R/A	I	I	I	I

Table 21 RACI Model for Administrative Measures.

31. Conflict and crisis

Conflict is when two perspectives, personalities, values, or opinions contradict each other. Crisis management is the process by which an organization deals with a major event that threatens to harm the organization, its stakeholders, or the public conflict and crisis phenomena as a state of the business operating environment that is riddled with so many threats and uncertainties. In doing this, manifestations and impacts on the organization.

Consequently, we discovered that both conflict and crisis phenomena are an indispensable part of human existence and environmental character.

Between productivity demands and service quality. More pacifically, their research indicates that the agents become less able to handle interactions with customers due to the negative influence of the pressure of obeying key performance indicators and efficiency demands have a negative influence on the level of service quality and customer satisfaction.

According to the employee-job fit is about the ability of employees in solving problems and acting positively in all situations on his/her job. Also, it encompasses feelings about his/her job, or in simple words, whether he/she likes it or not.



31.1.Expected Scenarios of conflicts

Scenario 1

You get off on the wrong foot with a new coworker. They ask you for help responding to a customer inquiry, but you refuse to lend a hand because you are working on a tight deadline and don't want to waste time. There has been tension between you two ever since, and now you need their help on a project, but they're not being very responsive.

Proposed Solution

Go own it! Find an appropriate time to walk up to them and say, "I understand that we got off on the wrong foot. My apologies for that. What I'm trying to resolve is X. Can we have a conversation about that?"

Regardless of who the conflict is with - an employee, your boss, etc., they'll think more highly of you if you demonstrate self-awareness. The conversation may be awkward, but that's better than a tense relationship that could last years all because you got off on the wrong foot.

Key Focus: It's all about how you approach the situation.

Try to maintain respect in the conversation and understand that it does not mean that you're going to love each other at the end of it. At the end of the day you are trying to resolve something so that you can move forward and execute on whatever project or plan you need to deliver.



Scenario 2

You got a promotion that your friend at work was also gunning for. Now things are awkward between you two. You definitely want to keep the friendship going, but they aren't even speaking to you outside of team meetings.

Proposed Solution

Lama suggests going up to the person and owning it. Tell them that you know it's an uncomfortable situation and that you'd like to continue the relationship. These situations are tough, but radical candor is important - learn more about how to practice it in the workplace here.

Key Focus: Be proactive. Break the ice. Figure out how to work together.

Important Note: Never apologize for your promotion/moving your career forward. Prepare to be content with the other person's decision if they are no longer interested in continuing the friendship.



Scenario 3

You're frustrated because your colleague in AL-Qassim keeps messaging you at 3am (your time). They send you seemingly urgent requests when you're sleeping or just waking up, and you're sick of being bombarded with 11 requests before you've even sat down at your desk. You get the vibe they don't like you very much and you don't know how to approach them.

Proposed Solution

Avoiding confrontation is making your situation worse, not better! Schedule a time to chat with them via phone or video call.

Bring the spirit of collaboration to the table!

Uncover the root of the problem by asking questions - "Is there any particular reason you send me requests before I'm up? Am I responding to you too late?" Once you understand *why* they're doing it, you can help them articulate their needs. Maybe they send you 11 messages at 6am because that's right before their lunchtime, and they don't want to forget their questions when they go on break. Now figure out a solution that works for both of you. Can they send themselves a reminder on Slack to ping you with their questions when you're at your desk? Can you just ignore their messages until you clock in now that you understand they're not time sensitive? Should you schedule a morning check in to go over these requests in real time rather than via message?

Key Focus: Have a candid conversation to ease any tensions long distance can bring.

31.2. Conflict Management Strategies

There is a menu of strategies we can choose from when in conflict situations: Research on conflict management styles has found that each of us tends to use one or two of the above five strategies more than the others. For instance, some people predominantly use collaborating when in interpersonal conflict situations.

In other words, although there are five different ways to handle conflicts, such a person is more likely to collaborate than they are to force, accommodate, avoid, or compromise. There are many advantages to using a collaborating strategy to handle interpersonal conflict situations. Collaborating with the other party promotes creative problem solving, and it's a way of fostering mutual respect and rapport. However, collaborating takes time, and many conflict situations are either very urgent or too trivial to justify the time it takes to collaborate.

There are many conflict situations that should be handled with one of the other four conflict management strategies rather than collaboration. Managers who are very skilled at conflict management are able to (a) understand interpersonal conflict situations and (b) use the appropriate conflict management strategy for each situation.

Negotiating and handling conflict are essential skills in business today. Using the Thomas-Kilmann Conflict Mode Instrument (TKI) personality tool will help you and your teams become more effective. They will learn how to handle conflict both now and in the future .

Understanding our conflict modes strengthens team work for your whole business. TKI helps trainers and facilitators understand conflict styles. Customer service teams will improve their skills in handling customers in difficult situations, enabling complaints and disagreements to be settled smoothly and successfully.

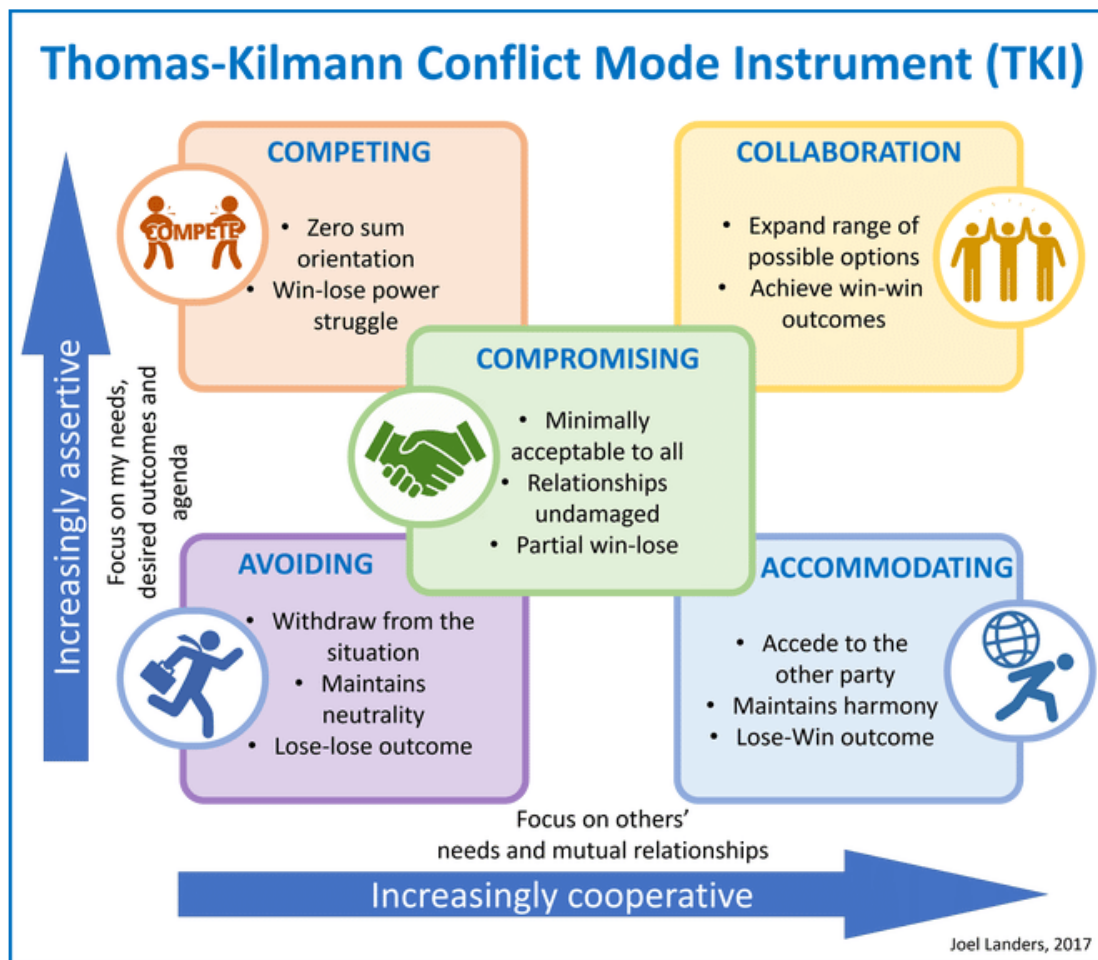


Figure 10 TKI Conflict Instrument tool

- **Competing** - Assertive and uncooperative, the competing conflict style is an intense approach to resolving grievances. It's not uncommon for a competing conflict resolution strategy to yield a positive outcome for one party and a negative outcome for the other. This strategy isn't one to make new friends, so tread lightly.
- **Accommodating** - allowing the other party to satisfy their concerns while neglecting your own.
- **Avoiding** - not paying attention to the conflict and not taking any action to resolve it.
- **Compromising** - attempting to resolve a conflict by identifying a solution that is partially satisfactory to both parties, but completely satisfactory to neither.

- **Collaborating** - cooperating with the other party to understand their concerns and expressing your own concerns in an effort to find a mutually and completely satisfactory solution (win-win).

Why use the Thomas Kilmann Conflict Instrument (TKI)?

- People to understand their conflict handling styles and those of others.
- People to understand their preference for handling conflict and how the options for handling conflict can be increased.
- Business leaders to develop their interpersonal skills and leadership capabilities to negotiate and influence others to achieve their goals.
- Customer service teams to handle difficult relationships with customers to increase sales and enhance business opportunities.

Root Cause Analysis

It is well known that gaining satisfaction from customers you serve can help a company grow. When this area starts to weaken then immediate attention must be taken to figure out what is going on. It is important to find out why there is low customer satisfaction for the business to succeed. Once the areas of weakness have been acknowledged then training your employees to improve in these areas is vital.

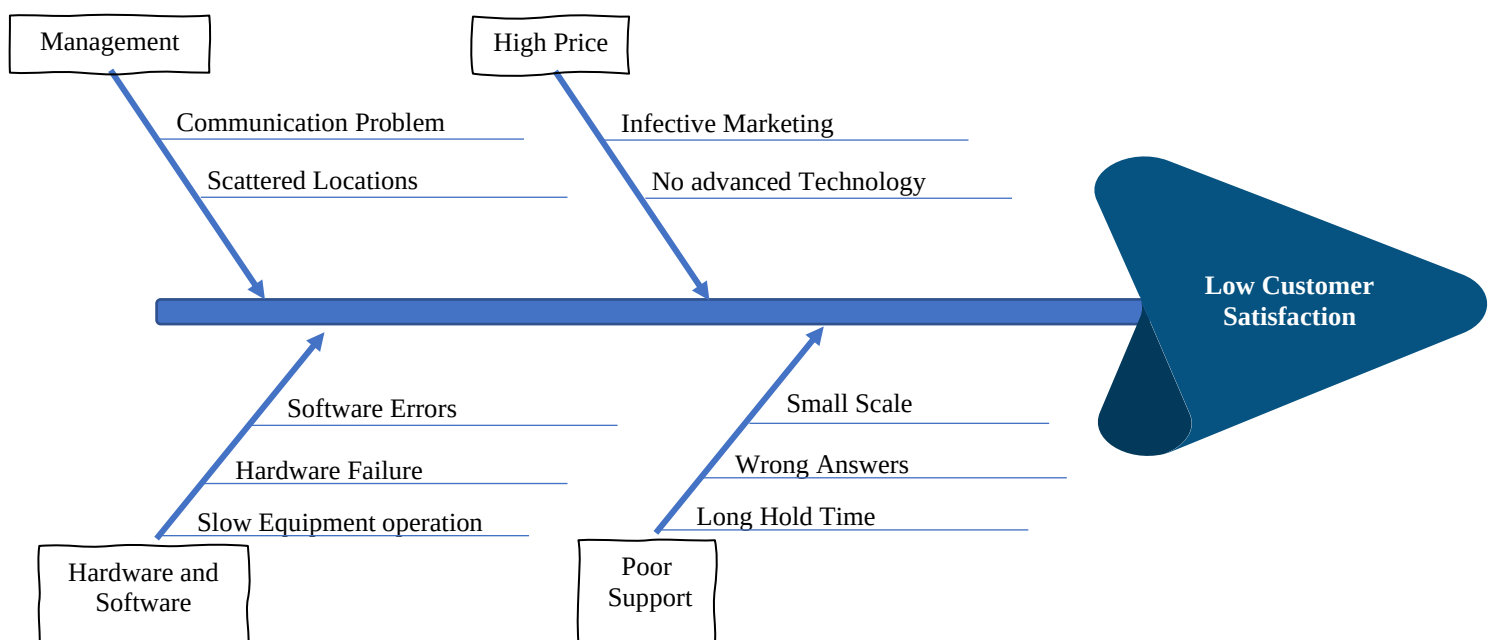


Figure 11 Root Cause Analysis

32. Distribution List of Human Resource per activities

WBS Number	Task name / Title	Assigned to
1	Initiate Phase Activities	
1.1	Develop Business Case	Maha Al Solai
1.2	Defining and engaging stakeholders	Maha Al Solai
1.3	Develop Project Charter	Maha Al Solai, Ali Al Zahrani
1.4	Management Activities Completed	Maha Al Solai, Ali Al Zahrani, Muhanned Al Muhana
2	Initiation/Planning	
2.1	Conduct Feasibility Study	Maha Al Solai, Ali Al Zahrani
2.2	Create Stakeholder engagement plan	Maha Al Solai, Muhanned Al Muhana
2.3	Conduct Workshops with SMEs	Maha Al Solai, Abdulrahman Al Sarhani, Nawaf Aboud
2.4	Appoint Project Team	Maha Al Solai, Muhanned Al Muhana
2.5	Create Schedule	Ali Al Zahrani, Nawaf Aboud, Abdulrahman Al Dwillie, Mousa Bahri
2.6	Create Budget plan	Ali Al Zahrani, Nawaf Aboud
2.7	Create WBS plan	Mousa Bahri
2.8	Create Project Charter	Maha Al Solai, Ali Al Zahrani, Abdulrahman Al Sarhani, Mousa Bahri
2.9	Complete Business case	Maha Al Solai, Abdulrahman Al Dwillie, Mousa Bahri
3	Execute Phase Activities	
3.1	Identify Preferred Supplier	
3.1.1	Issue RFP	Maha Al Solai, Ali Al Zahrani, Nawaf Aboud
3.1.2	Issue Contract	Maha Al Solai, Ali Al Zahrani
3.2	Redesign Office Layout	

WBS Number	Task name / Title	Assigned to
3.2.1	Design Office Layout	Abdulrahman Al Dwillie, Mousa Bahri
3.2.2	Install Office Equipment's	Abdulrahman Al Dwillie, Mousa Bahri
3.3	Install new System	
3.3.1	Design System Configuration	Abdulrahman Al Dwillie, Mousa Bahri
3.3.2	Configure System	Muhanned Al Muhana
3.3.3	Perform System Testing	Muhanned Al Muhana, Nawaf Aboud, Mohammed Amri
3.3.4	Perform Performance testing	Maha Al Solai, Muhanned Al Muhana, Abdulrahman Al Sarhani, Nawaf Aboud
3.3.5	Install System	Nawaf Aboud, Mohammed Amri
3.3.6	Perform Final User Testing	Abdulrahman Al Dwillie, Mousa Bahri
3.4	Define New Process	
3.4.1	Create Operator Process	Ali Al Zahrani, Nawaf Aboud, Abdulrahman Al Dwillie
3.4.2	Create Maintenance Process	Muhanned Al Muhana, Nawaf Aboud, Abdulrahman Al Dwillie
3.5	Train Staff	
3.5.1	Conduct Pre-Go Live Training sessions to power users	Lama Al Solai, Abdulrahman Al Dwillie
3.5.2	Train support team for maintenance	Lama Al Solai, Abdulrahman Al Sarhani
3.5.3	Conduct Change Management	Lama Al Solai, Abdulrahman Al Sarhani
3.6	Go-Live	
3.6.1	Launch New Helpdesk Center	Lama Al Solai, Maha Al Solai, Ali Al Zahrani, Abdulrahman Al Sarhani, Mousa Bahri, Mohammed Amri

WBS Number	Task name / Title	Assigned to
3.6.2	Monitor Implementation	Lama Al Solai, Maha Al Solai, Ali Al Zahrani, Muhanned Al Muhana, Mohammed Amri
3.6.3	Provide Post Go-Live Training Support	Lama Al Solai, Ali Al Zahrani, Muhanned Al Muhana, Nawaf Aboud, Mousa Bahri, Mohammed Amri
3.6.4	Conduct Advertising to existing client base	Lama Al Solai, Ali Al Zahrani, Abdulrahman Al Sarhani, Nawaf Aboud, Mousa Bahri, Mohammed Amri
4	Project Closure	
4.1	Complete Project Documentation materials	Maha Al Solai, Muhanned Al Muhana
4.2	Create Lessons Learned Documents	Maha Al Solai, Ali Al Zahrani, Abdulrahman Al Sarhani, Nawaf Aboud, Mousa Bahri, Mohammed Amri
4.3	Sign off Project Closure Document	Maha Al Solai, Ali Al Zahrani, Muhanned Al Muhana, Abdulrahman Al Sarhani

Table 22 Distribution List of Human Resource per activities

32.1 Crashing and Fast-tracking process

Fast Tracking is a schedule compression technique in which activities or phases normally done in sequence are performed in parallel for at least a portion of their duration.

Crashing is a technique used to shorten the schedule duration for the least incremental cost by adding resources.

The below table shows the measures that has been taken for fast tracked and crashing activities and the cost if the stakeholders agrees on the crashing expenses to expedite the project:

Activity ID	Activity	No of Res.	Normal		Fast		Crash		Crash Var Norm Cos
			Time	Cost	Time3	Cost4	Time	Cost6	
1.1	Develop Business Case	1	80	12,000	-	-	75	12,750	750
1.2	Defining and engaging stakeholders	1	24	3,600			-	-	-
1.3	Develop Project Charter	2	72	10,800			-	-	-
1.4	Management Activities Completed	3	16	2,400			-	-	-
2.1	Conduct Feasibility Study	2	80	12,000			-	-	-
2.2	Create Stakeholder engagement plan	2	40	6,000			-	-	-
2.3	Conduct Workshops with SMEs	3	64	9,600			60	10,200	600
2.4	Appoint Project Team	2	48	7,200	40	-	-	-	-
2.5	Create Schedule	4	88	13,200			-	-	-
2.6	Create Budget plan	2	88	13,200	80	-	-	-	-
2.7	Create WBS plan	1	40	6,000				-	-
2.8	Create Project Charter	4	80	12,000				-	-
2.9	Complete Business case	3	120	18,000				-	-
3.1.1	Issue RFP	3	176	26,400			166	27,900	1,500
3.1.2	Issue Contract	2	88	13,200				-	-
3.2.1	Design Office Layout	2	40	6,000			-	-	-
3.2.2	Install Office Equipment's	2	88	13,200				-	-
3.3.1	Design System Configuration	2	88	13,200				-	-
3.3.2	Configure System	1	128	19,200			100	23,400	4,200
3.3.3	Perform System Testing	3	64	9,600			56	10,800	1,200
3.3.4	Perform Performance testing	4	64	9,600			56	10,800	1,200
3.3.5	Install System	2	80	12,000			70	13,500	1,500
3.3.6	Perform Final User Testing	2	80	12,000			70	13,500	1,500
3.4.1	Create Operator Process	3	88	13,200			76	15,000	1,800
3.4.2	Create Maintenance Process	3	80	12,000			50	16,500	4,500
3.5.1	Conduct Pre-Go Live Training sessions to power users	2	80	12,000			60	15,000	3,000
3.5.2	Train support team for maintenance	2	80	12,000	75			-	-
3.5.3	Conduct Change Management	2	40	6,000				-	-
3.6.1	Launch New Helpdesk Center	6	240	36,000			220	39,000	3,000
3.6.2	Monitor Implementation	5	240	36,000			220	39,000	3,000
3.6.3	Provide Post Go-Live Training Support	6	240	36,000			220	39,000	3,000
3.6.4	Conduct Advertising to existing client base	6	160	24,000			120	30,000	6,000
4.1	Complete Project Documentation materials	2	24	3,600	18			-	-
4.2	Create Lessons Learned Documents	6	40	6,000				-	-
4.3	Sign off Project Closure Document	4	40	6,000	36			-	-
Total	Calculating the Variance		3,088	463,200	3,061		2,843	316,350	36,750

Table 23 Crashing and Fast-tracking

32.2 Summary of Normal Vs Crashing VS Fast Track

Column1	Hours	% Compress	Cost
Initial (uncompressed) schedule	3088	0	463,200
Crashing	2843	-8%	499,950
Fast Tracking	3061	-1%	463,200

Table 24 Summary of Normal Vs Crashing VS Fast Track

33. Project Negotiations Roles and Models

Negotiation can be defined as a dynamic process among interdependent and self-interested parties with different backgrounds, which aims to reach an agreement that satisfies preferences and constraints of the involved parties. Some common characteristics can be identified during a negotiation:

- There are two or more parties (individuals, groups or organizations)
- There is a conflict of interest (goals, requirements, needs, desires, beliefs) between the parties.
- Parties negotiate due to the belief that they are going to gain better outcomes instead of not negotiating.
- There is no formal perspective to provide a solution to the dispute of the parties
- A “give and take” attitude between the parties is expected.
- Psychological factors usually influence parties during a negotiation.

In the context of the project, negotiation is a technique for resolving conflicts between project stakeholders and demonstrates a way of crafting mutually satisfactory solutions

Projects are structured upon controversial stakeholders' interests, requirements, goals and expectations. So, conflict is a common event in the project life cycle. There are four generic processes that can describe the life cycle of a project:



Figure 12 Negotiation Project Life Cycle

33.1 Project Roles

Rule	Project Management Example
1. Be patient	Dealing with a team member who is underperforming—and perhaps defensive—may be uncomfortable for a project manager, so the tendency is to get the encounter over with as quickly as possible. A better approach is to develop rapport with the person, ask for permission to provide feedback or suggestions, carefully answer any questions that come up, and take the time to reach satisfactory agreement.
2. Be positive	A principle of persuasive influence is to deal with people you like. A positive attitude with project sponsors helps build confidence and credibility in their minds. This means they engage more willingly with the PM in supporting the project and maintaining that support throughout the project lifecycle.

Rule	Project Management Example
3. Gather information	Clients or customers have challenges that may be addressed by the outcome of your project. Ask probing questions about what they are doing...and listen to the answers. Review the relationship history, especially if support issues have come up and whether or not they were adequately addressed. Find out their timetable or deadline, both to purchase and then to implement the solution.
4. Float trial balloons	Ask “What if we could provide key features in Phase 1 and address other wants in later phases?” These questions make no commitments but do explore reactions from the other party about possible approaches they may be willing to consider.
5. Know your status	Project managers are closest to the action on most projects and have significant status attributable to the information they possess. Other stakeholders have status via the authority they have to allocate resources or dispense funds. The real opportunity to achieve better outcomes is when one side is anxious to reach agreement; the other side may then nibble to gain additional concessions, such as extend a resource’s time on the project or reduce features in order to meet cost or time pressures.
6. Know your opening offer	You estimate the project will take between 4 to 6 months. Ask the customer when they want it, and they may respond in 8 months, in which case you have a cushion. If the PM were aggressive and quoted first, saying 4 months (the bottom line), there is no room to negotiate. If the customer has no

Rule	Project Management Example
	clue and may ask for 2 months, the PM can open first by quoting 6 months (the edge of the envelope) and have room to negotiate something in between.
7. Limit your authority	Try to negotiate with the decision-maker so you deal with them directly and get agreement quickly. When you are the decision-maker, have someone else negotiate on your behalf so you cannot be pinned down by hard core negotiating tactics. This provides opportunity to practice patience, review the proposal more thoroughly (instead of in an emotional moment), and to come back with counter proposals.
8. Know your bottom line	Two vendors have similar products where one has a slight edge and costs more. The PM wants the better product but has a strict budget limit of \$10K. Negotiations with the higher priced vendor proceed in order to get a lower price or arrange terms that fall within the budget limit. Use the limit to stand firm, negotiate with due diligence, and fall back on the other vendor if not successful. Knowing these limits determines whether to continue or walk away.
9. Be prepared	Have a risk management plan that provides advance notice of technology that may not work or tasks that take longer than planned. Clear trigger points invoke contingency plans calling for negotiations on the pros and cons of various options, leading to quick resolution. Preparation avoids being caught

Rule	Project Management Example
	by surprise and having to invent options where none previously existed.
10. Never reward intimidation tactics	A PM whose does not push back against unreasonable scope, schedules, or resources is training sponsors to continue a demanding behavior. Instead, set expectations by negotiating the triple constraints at project start-up and when changes occur. Make concessions when the other side makes them as well. Do not give in to intimidation tactics or “the beatings will continue until morale improves.”

Table 25 Project Roles

33.2 Negotiation Models for managing projects:

Since conflicts are inevitable during the life-cycle of a project, therefore there is a need to apply techniques in order to manage and resolve conflicts appropriately.

In our project we have developed 2 models as follows:

Negotiation Model 1: Principled Negotiation Process Model:

this model can be adopted in the context of a project, as it serves project objectives via an honest relationship between stakeholders and mutually satisfactory solutions. This model can be developed through four stages:

1. Separate the people of the problem. Primarily, it is essential for the negotiators to concentrate on the real aspects of negotiation. They have to separate objective problem from emotions (egoism, anger, empathy)
2. Focus on interests, not positions. Negotiation participants have to distinguish between interests and positions of the other parties. Position is the formal state of a negotiator over an issue, whereas interest underlies the position.
3. Invent options for mutual gain. Parties need to devote time to investigate all possible options and then choose these options with mutual gain that keep all of them satisfied. They have to participate in brainstorming sessions for generating new ideas that may come into better agreements.
4. Insist on using objective criteria. Finally, parties have to decide about the objective criteria according to them each possible solution is going to be evaluated.

Negotiation Model 2: Possible steps in a negotiation process by International Project Management Association (IPMA)

The International Project Management Association (2006) refers synoptically to the possible steps of a negotiation in the context of projects. These steps are:

1. Primarily, parties should determine both the ideal outcome from the negotiation and the minimum acceptable solution BATNA (Best Alternative to Negotiated Agreement)
2. Afterwards, they have to choose their negotiation strategy, either an integrative or a distributive approach.

3. At this step, they identify negotiating issues and analyze relative information about the issues.
4. Next, parties record all possible options that provide solution to the negotiating issues.
5. Then, they reveal the options with mutual gains that can conclude to win-win negotiation.
6. A positive relationship must be kept among parties; therefore shared interests should be highlighted.
7. Until crafting an agreement, above steps may be repeated.
8. At the end, documentation is required in order to provide lessons learned to future negotiation of the same or other projects.

IPMA mentions that above steps should be conducted according to the parties' interest and positions. Conclusively, IPMA's approach takes into account the following determinants: ideal outcome, BATNA, negotiation strategy (integrative or distributive), negotiating issues, possible options, options with mutual gains, shared interests, documentation, parties' interests and positions.

Project Triple Constraints

The triple constraint theory is often referred to as the project management triangle. Each side or point of the triangle represents the triple constraints of project management: scope, time, and cost. Recently those constants expand to include more project constraints like quality, resources and risk, but we will talk about the major ones here

The triple constraint theory in project management says every project operates within the boundaries of scope, time, and cost. A change in one factor will invariably affect the other two.

For example, in this project the client wants to add a bunch of new features to the call center capabilities (ie: expand the scope), they will have to budget more time and money to achieve the project goals. On the other hand, if the client wants to reduce the project budget, you will need to scale back the project requirements and time.

In other words, it is all about trade-offs. As project manager, it is our job to balance these triple constraints and manage expectations so everyone understands what it takes to achieve project success.



Figure 13 Project Triple Constraints

Cost

The financial commitment of the project is dependent on several variables. There are the resources involved, from materials to people, which include labor costs. There are other outside forces that can impact a project, which must be considered in the cost of the work.

Scope

It deals with the specific requirements or tasks necessary to complete the project. Scope is important to manage on any project, whether agile software projects or well-planned waterfall projects, because if you can't control the scope of the project, you're not likely to deliver it on time or under budget!

When managing scope it is critical that you prioritize your tasks, enabling you to plan and assign resources effectively. Without creating a sense of order, it is easy to become overwhelmed, enabling scope creep. Make sure that you knock out prerequisite tasks so your project can develop smoothly without interruptions.

Time

At its basic, the schedule is the estimated amount of time allotted to complete the project, or producing the deliverable. Usually, this is figured out by first noting all the tasks necessary to move from the start to the finish of the project.

Project success factors:

According to PRINCE2's definition, critical success factors (CSFs) are “elements in a project that are critical to the project achieving its mission or goal.”

Success factors define the things that the deliverable requires, and the factors that ultimately define it as successful.

For the call center project to be successful, we must have the following success factors achieved:

- Effective communication between regional offices
- Reliable system and processes required for supporting the customer
- Least delay in handling customer inquiries
- Efficient call management system

Work Breakdown Sturcture (WBS)

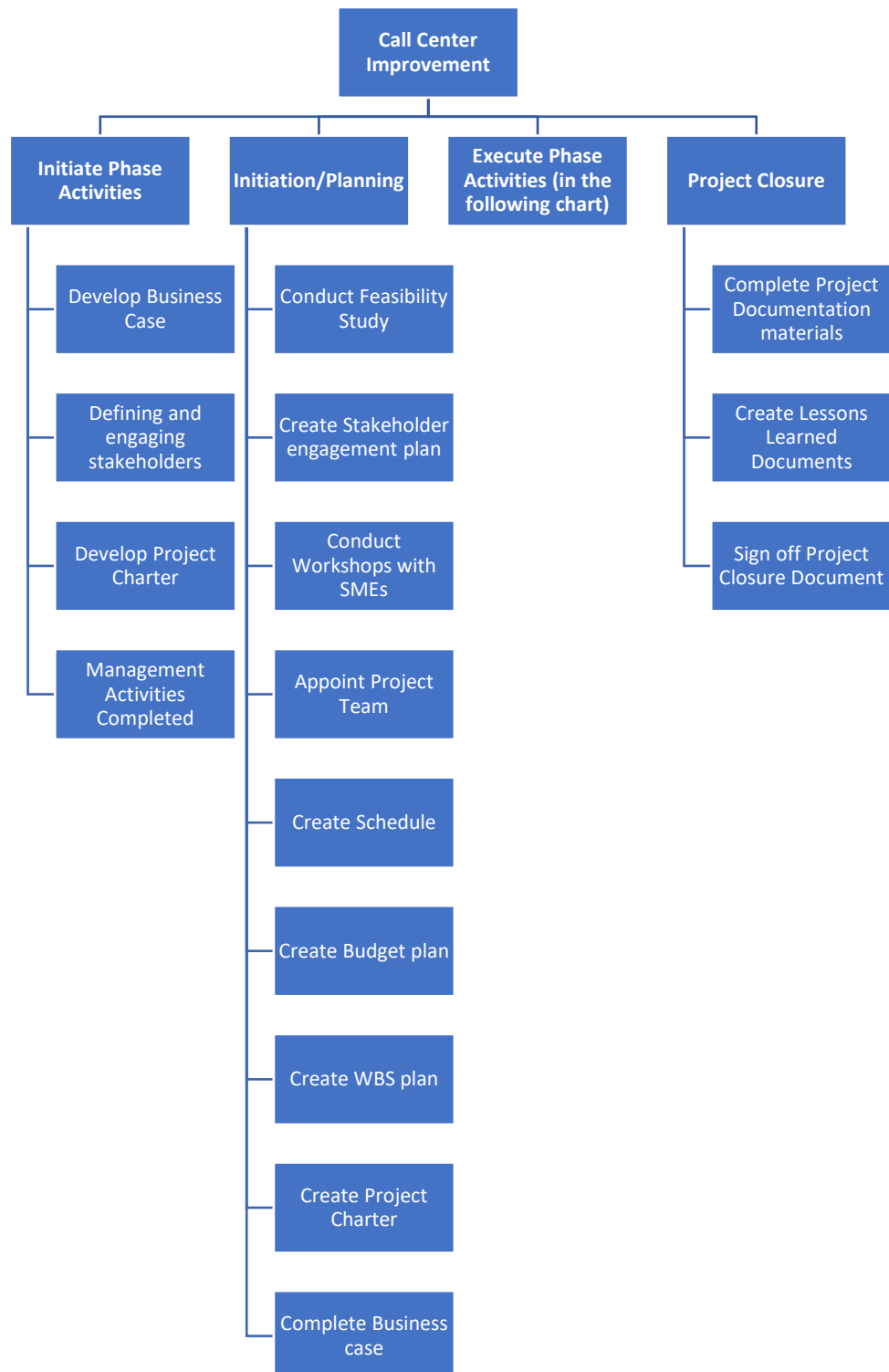
A work breakdown structure (WBS) is a visual, hierarchical and deliverable-oriented deconstruction of a project. It is a helpful diagram for project managers because it allows them to work backwards from the final deliverable of a project and identify all the activities needed to achieve a successful project.

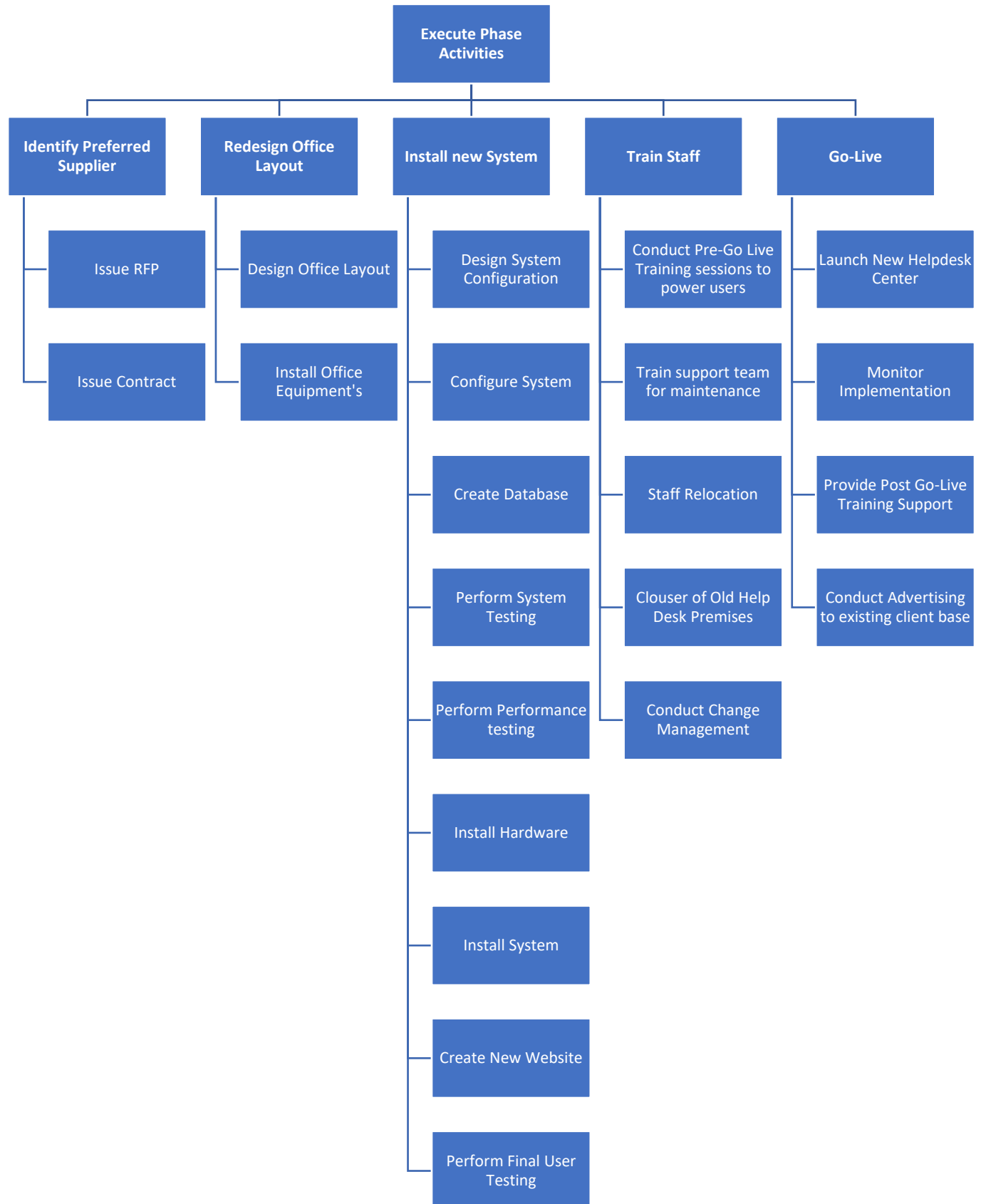
Table 26 WBS

WBS	Task Name
1	Call Center Improvement
1.1	Initiate Phase Activities
1.1.1	Develop Business Case
1.1.2	Defining and engaging stakeholders
1.1.3	Develop Project Charter
1.1.4	Management Activities Completed
1.2	Initiation/Planning
1.2.1	Conduct Feasibility Study
1.2.2	Create Stakeholder engagement plan
1.2.3	Conduct Workshops with SMEs
1.2.4	Appoint Project Team
1.2.5	Create Schedule
1.2.6	Create Budget plan
1.2.7	Create WBS plan
1.2.8	Create Project Charter
1.2.9	Complete Business case
1.3	Execute Phase Activities
1.3.1	Identify Preferred Supplier
1.3.1.1	Issue RFP
1.3.1.2	Issue Contract
1.3.2	Redesign Office Layout
1.3.2.1	Design Office Layout
1.3.2.2	Install Office Equipment's

WBS	Task Name
1.3.3	Install new System
1.3.3.1	Design System Configuration
1.3.3.2	Configure System
1.3.3.3	Create Database
1.3.3.4	Perform System Testing
1.3.3.5	Perform Performance testing
1.3.3.6	Install Hardware
1.3.3.7	Install System
1.3.3.8	Create New Website
1.3.3.9	Perform Final User Testing
1.3.4	Train Staff
1.3.4.1	Conduct Pre-Go Live Training sessions to power users
1.3.4.2	Train support team for maintenance
1.3.4.3	Staff Relocation
1.3.4.4	Closure of Old Help Desk Premises
1.3.4.5	Conduct Change Management
1.3.5	Go-Live
1.3.5.1	Launch New Helpdesk Center
1.3.5.2	Monitor Implementation
1.3.5.3	Provide Post Go-Live Training Support
1.3.5.4	Conduct Advertising to existing client base
1.4	Project Closure
1.4.1	Complete Project Documentation materials
1.4.2	Create Lessons Learned Documents
1.4.3	Sign off Project Closure Document

WBS chart





Project Traceability Matrix

A requirements traceability matrix is an integral part of an embedded systems' lifecycle. It helps organizations ensure that their products are safe and are meeting their intended standards.

This is especially important for the medical, technology, and engineering industries. But any business that has a set of goals and standards to uphold can benefit from this proven requirements analysis tool.

Here's how to make an effective requirements traceability matrix and why you should start one today.

RTM Requirements Traceability Matrix

RTM, the meaning is **Requirements Traceability Matrix (RTM) Template** is a scope control tool that helps ensure that the requirements and related deliverables remain stable and linked back to their baseline and the original source is, the stakeholder who requested them. Thus it “traces” the deliverables by establishing a thread for each requirement- from the project's initiation to the final delivery.

How to group requirements and create RTM

- **Business Requirements:** needs that come from the organization, at the business level(Business Requirement Document)
- **Stakeholder Requirements:** requirements gathered from stakeholders
- **Solution Requirements:** requirements that relate to the solution to be delivered, which in turn be split between functional and non-functional requirements
- **Transition Requirements:** requirements regarding the transition between solutions (existing and new), if applicable
- **Functional Requirements:** requirements that refer to user or system requirements
- **Non-functional Requirements:** requirements that are non-functional, such as quality requirements or constraints that need to be considered

Respondent will be required to submit a completed RTM as part of its proposal.

The RTM requires that:

- Respondent will perform a self-assessment on its ability to meet requirements.
- For each subsection outlined, the Respondent must indicate with an "X" how current capabilities meet the requirements.
- The Exchange will assume that any requirement in the RTM that the Respondent fails to respond to cannot be met by Respondent.

Respondent should use the following descriptors to describe its ability to meet requirements:

Meets the Requirements (MTR)	Meets all requirements as written in the sub-section (e.g., well defined support system, flexibility, considerable implementation experience, has performed function in pervious capacity.
Requires Minor Modifications (RMM)	Demonstrates capabilities to meet requirements with slight adjustments (e.g., well-defined approach / plan to meet requirements with adjustments, performed similar but not exact function in the past projects) to respondents' standard configurations of call center services.
Requires Significant Modification (RSM)	Current Respondent standard configuration does not demonstrate capabilities to mee requirements as written (e.g., insufficient support, no functionality built to meet requirements) and would have to make major changes to comply.
Does Not Comply (DNC)	Not Able to comply or no capability or no response provided.
Respondent Notes and Consideration on Capabilities (RNCC)	This is section is not mandatory, it may include any notes for the consideration concern the self-assessment, examples of demonstrated experience executing the requirements in previous projects.

1.0 Core Functionality/ Operations		COMPLIANCE TO RTM (MTR/RMM/RSM/DNH)	RNCC
1.1	The Respondent shall establish and operate a single hotline for consumer assistance.		
1.2	The Respondent's system and procedure shall provide call monitoring capability to the Exchange of all calls answered by Call Center personnel and Voice call recordings shall be made available to designated Exchange staff as needed and retained as per Exchange records archival requirements.		
1.3	The Respondent's system and procedures shall record all call inquiry information.		
1.4	The Respondent's system and procedures shall be capable of assisting consumers through integrated Interactive Voice Response (IVR) technology. IVR should be capable of being customized for Exchange functionality, include the ability to confirm status, transfer caller identification data to Call Center personnel, assist in eligibility determination, confirm enrollment, assist with automated call transfers, etc.		
1.5	The Respondent's system and procedures shall have the ability to manage outbound IVR campaigns.		
1.6	The Respondent's system and procedures shall have the ability to add rules to outbound campaigns to actively direct consumers to inbound IVR self-service functions or to designated Call Center personnel during the conduct of outbound automated call.		
1.7	The Respondent's system and procedures shall provide virtual hold and callback features when thresholds are met for wait time to allow consumers to hang up and receive an automated call when Call Center personnel is available.		
1.8	The Respondent's system and procedures shall provide consumers who make contact by phone with an estimated wait time to speak with Call Center personnel. Such wait times must reflect actual Call Center response times to within 5 minutes or less throughout the day. Exchange must be able to inspect and monitor actual wait times during 15 min intervals on a daily basis in real time.		

1.0 Core Functionality/ Operations		COMPLIANCE TO RTM (MTR/RMM/RSM/DNH)	RNCC
1.9	The Respondent's system and procedures shall have the functionality to allow Exchange personnel to monitor Call Center activity on a real time basis through access to Respondent Manager/Supervisor Dashboards.		
1.10	The Respondent's system and procedures shall have the functionality to issue customer service reports, and other reports required by the Exchange for basic reporting needs.		
1.11	The Respondent's system and procedures shall have the functionality to export to the Exchange all ACD, IVR and CRM statistical data and contact information.		
1.12	The Respondent's system and procedures shall have the functionality to call people based on an IVR periodic call list.		

Table 27 Core Functionality

2.0 KPIs/ Performance Guarantees		COMPLIANCE TO RTM (MTR/RMM/RSM/DNH)	RNCC
2.1	Respondent will provide a written narrative for any KPI's, corrective actions, timelines and responsible Respondent manager.		
2.2	Respondent agrees the KPI period will run from contract inception to contract termination ("Performance Period")		
2.3	Respondent agrees that Call Center KPI's are subject to both annual change and changes within a year as Call Center operational and financial objectives emerge.		
2.4	Respondent agrees that call center will have review and signoff on all CSR QA protocols and measures		
2.5	The Respondent will be required to provide service levels in accordance with the following Key Performance Indicators:		
	1. Service Measures – Accessibility:		
	Blockage: weekly rate will be no more than: 2%.		
	Hours of Operation: available 8am to 6pm EST Sunday through Thursday		

2.0 KPIs/ Performance Guarantees		COMPLIANCE TO RTM (MTR/RMM/ RSM/DNH)	RNCC
	Abandon rate: less than 5%		
	Self Service: discuss readiness of Respondent to provide new platform with HIX data for self-serve		
	2. Service Measures – Speed of Service:		
	Total Service Level: answer 90% of calls within 30 seconds, 95% of calls within 45 seconds, and 99% of calls within 60 seconds over a measurement period of each day.		
	Average Speed of Answer: 60 seconds or less.		
	Longest Delay In Queue: Respondent must provide reason for delays and mitigation plan for future delay situations		
	3. Quality Measures – Resolution:		
	First Call Resolution (all calls): 65% or greater.		
	First Call Resolution (net FCR) (resolvable calls):85%.		
	Transfer Rate: to be discussed		
	Consumer Satisfaction: (CSAT) goal: 90% or better; min sample size 25% with prorated distribution across call types/reasons		
	4. Quality Measures – Call Process:		
	These will be discussed during Final planning process.		
	Expected to largely come from the Respondents CSR/QA Monthly Assessment process.		
	5. Efficiency Measures –Contact Handling:		
	Average Handle Time: (AHT) : 14 minutes or less (talk time before a call is resolved, closed at Tier 1 or transferred to Tier 2)		
	On Hold Time: the weekly average wait or hold time will not exceed 120 (one-hundred twenty) seconds per call.		
	After Call Work Time: Respondent CSR will adhere to 70 seconds after call for completion of case comments		

Table 28 KPI Performance

3.0 Training and Development		COMPLIANCE TO RTM (MTR/RM M/ RSM/DNH)	RNCC
3.1	The Respondent shall, in collaboration with the Exchange, define the approach to training and development, including the setting (e.g. classroom, Web-based, etc.), the list of specific skills and knowledge required for each minimum skill, the personnel authorized to provide the training, and a desired outcome that can be verified. Such training components are subject to the approval of the Exchange throughout the Contract period.		
3.2	The Respondent shall provide all the necessary training and development that is needed by all Call Center personnel to acquire and maintain the skills and knowledge required for their positions.		
3.3	Training is to be provided in the most effective manner, including distance learning, online web cast, hands-on labs, interactive scenarios and classroom based education to insure Call Center personnel are aware and capable of resolving the Exchange consumer issues, and/or that Tier 1 or Tier 2 Exchange Consumer Support are aware of any changes impacting their online management of a request.		
3.4	The Respondent shall define a formal re-training plan for existing Call Center personnel if the Exchange's skill and knowledge requirements change. Monthly reports on retraining will provided to the Exchange.		
3.5	The Respondent shall create and maintain a verification process for all Call Center personnel of their skillset and training that includes:		
	a) Objective performance thresholds that are linked to the minimum requirements;		
	b) Documentation of CSR performance and coaching (e.g. tests, scores, dates) that can be audited independently by the Exchange or its representatives;		
	c) Action plans for Call Center personnel that fail to demonstrate the required skills and knowledge;		
	d) Annual re-verification and reporting to the Exchange of skills and knowledge certification no later than 30 days prior to each annual Open Enrollment date;		
	e) Re-verification of skills and knowledge following CSR break in service on the Exchange account as well as: changes in program, procedures, systems, etc. Respondent must provide weekly reporting to the Exchange on the status of all such re-verifications.		

Table 29 Training and Development

4.0 Quality Assurance		COMPLIANCE TO RTM (MTR/RMM /RSM/DNH)	RNCC
4.1.1	The Respondents systems and procedures shall include controls for tracking service requests and inquiries for accuracy of information.		
4.1.2	The Respondents systems and procedures shall provide the capability to automate customer surveys with the capacity to configure groups of questions at intervals as required by the Exchange from time to time.		
4.1.3	The Respondent shall conduct surveys of consumers immediately after they have used the Call Center, and report the results of the survey to the Exchange each month. With these monthly surveys, the Respondent will include a :		
	a) Minimum survey sample of 25 percent of the inbound calls reported for the month.		
	b) sample that is representative across Call Types , Call Reasons and Program Types reported for the month		
	c) In those months where the automated survey sample does not meet the minimum of 25 percent of inbound calls for the month and/or is not representative of the Call Types and Program Types reported for the month – the Respondent will supplement through other survey methods to reach the required sample criteria.		
4.1.4	The Respondent shall quantify and report on the overall consumer experience on a monthly basis through consumer surveys queried for all tickets:		
	a) Measuring samples must be representative of the services performed;		
	b) Measuring samples that include all types of end-consumer requests received by the Respondent;		
	c) Making monthly suggestions for improvements across the Exchange and the within the Respondent provided services - based on the issues identified that the Respondent will included as part of the monthly consumer survey report to the Exchange.		
4.1.5	The Respondent shall create and maintain a process for responding to the Exchange complaints on an individual basis. The Respondents systems and procedures shall be capable of		

4.0 Quality Assurance		COMPLIANCE TO RTM (MTR/RMM /RSM/DNH)	RNCC
	providing the Exchange to direct access for all complaint history at an individual level.		
4.1.6	The Respondent shall take action on end-consumer dissatisfaction that is controllable by the Respondent. Respondent will provide a list of actions that believe are to be excluded from their ability to resolve as part of the proposal submission and quarterly thereafter.		
4.1.7	The Respondents systems and procedures shall collate requested information from consumers regarding suggested improvements to the Respondent's service.		
4.1.8	The Respondent shall develop an Action Plan on a monthly basis to address these suggested improvements.		
4.1.9	The Respondent shall review the Action Plan with the Exchange for the Exchange approval within five (5) business days at the close of each month.		
4.1.10	The Respondent shall report monthly to the Exchange's Call Center PMO and/or its designated representative the status of all progress and improvements made.		
4.1.11	The Respondents systems and procedures shall provide access to status updates on open tickets to consumers via email, a web link or other consumer self-serve interface.		
4.1.12	The Respondent shall proactively solicit, evaluate, and take appropriate action on feedback obtained from Call Center personnel at least monthly. Such feedback shall be summarized and reported to the Exchange monthly for prioritization of actions to be taken.		
	a) This approach will include topics on process improvement, telephonics and system (e.g., CRM; HIX; etc.) recommendations.		
	b) The Respondent shall evaluate and analyze the feedback and provide action plans for addressing the feedback received that has the highest potential impact on the Exchange within five (5) business days at the close of each month.		
4.1.13	The Respondent shall develop and execute a Quality Assurance Program that promotes performance of the proposed services at a high level of quality, focusing on measuring and continuously improving call resolution, knowledge and the call center consumer experience.		

4.0 Quality Assurance		COMPLIANCE TO RTM (MTR/RMM /RSM/DNH)	RNCC
4.1.14	The Respondent shall perform internal audits that provide the Exchange with the assurance that the Respondent is complying with its proposed Quality Assurance procedures and standards. This includes both self-audits on the metrics gathered to support Quality Assurance activities and on Respondents efforts to improve overall quality. Such audits will demonstrate Respondent compliance with Quality Assurance requirements of the Exchange. Such audits may be carried out by an independent organization that is recognized by the Exchange as an expert in Call Center/Consumer Experience Quality Assurance methods. However, such Quality Assurance audits may not be conducted by the Respondent Team or Executives directly responsible for the management of the Exchanges services, they must be conducted by an internally independent group that is also recognized as having the expertise to conduct such Quality Assurance audits.		
4.1.15	The Respondent shall participate in ongoing continuous-improvement programs that the Exchange will oversee jointly with the Respondents Quality experts, including collaborating with an independent Quality Assurance vendor as needed.		
4.1.16	The Respondent shall, before the end of the implementation period, supply the Exchange with a Quality Assurance Plan associated with proper execution including but not limited to clear articulation of Quality Assurance performance tools, processes and knowledge.		
4.1.17	The Respondent should supply details of any industry-recognized quality standard to which it is, or will become, compliant (including a timeframe for compliance, if not already achieved), as well as any awards received over the last 18 months. Please indicate all quality programs that are externally measured (e.g., Six Sigma, ISO 2000, ITIL, etc.) and how such certifications would directly benefit the Exchange Call Center.		

Table 30 Quality Assurance

5.0 Knowledge Management		COMPLIANCE TO RTM (MTR/RMM /RSM/DNH)	RNC C
5.1.1	The Respondent shall develop and maintain a central knowledge database used to capture, store, and retrieve information and solutions for reuse by Call Center personnel, Exchange IRD, and other Exchange staff. This knowledge database must enable the sharing of all Call Center policies, procedures, best practices, and		

5.0 Knowledge Management		COMPLIANCE TO RTM (MTR/RMM /RSM/DNH)	RNC C
	methods to resolve requests among Call Center personnel, Exchange IRD, and other Exchange staff.		
5.1.2	The Respondent shall provide primary support to the Exchange in development and maintenance of the online knowledge database and its component parts in order that it is available and current to assist with inquiries, procedures, referrals, training and problem solving.		
5.1.3	The Respondent shall incorporate the active use of a knowledge database to assist with the resolution the processing of service requests, including:		
	1. If approved by the Exchange, make the knowledge base available online to consumers for consumer self-help or FAQs.		
	2. Track the use of the knowledge base and report usage statistics to the Exchange on a monthly basis, or as requested by the Exchange (i.e., the number of requests resolved using the knowledge base).		
	3. Manage content in conjunction with the Exchange knowledge owners to insure continued accuracy applicability of knowledge elements to the State environment.		
	4. Provide the Exchange with portable copy upon request of all knowledge elements pertaining to the management of the Exchange requests, including but not limited to data, request resolutions, classifications and content.		
5.1.4	The Respondent's system and procedures shall provide the ability to identify types of requests that could/should be resolved at Tier 1 but are escalated to supervisors or the Exchanges IRD unit.		
5.1.5	The Respondent shall provide a monthly update to the Exchange with best practices as they are identified, developed, and disseminated - including updates based on "lessons learned" and experience with similar technologies active on other client projects.		
5.1.6	The Respondent's system and procedures shall continuously educate and support the Exchange staff on review and management of the status of open tickets.		

5.0 Knowledge Management		COMPLIANCE TO RTM (MTR/RMM/RSM/DNH)	RNC C
5.1.7	The Respondent's system and procedures shall provide a monthly update of frequently asked questions (FAQs) regarding the services.		
5.1.8	The Respondent's system and procedures shall identify those FAQs where recommended solutions can be designed and made available to consumers – by either the Respondent or the Exchange - to increase their ability to self-resolve requests.		
5.1.9	The Respondent shall provide FAQs on a platform that is directly accessible by Exchange internal personnel and systems (i.e. Web Portal, Mobile Portal, phone, etc.).		
5.1.10	The Respondent shall recommend and publish answers to the FAQs using a media/platform that is efficient, easy to use, and easily accessible for consumers; FAQ answers will be subject to approval by the Exchange.		

Table 31 Knowledge Management

Hierarchy of Project Objectives

The hierarchy of objectives is a tool that helps analyze and communicate the project objectives. It organizes these objectives into different levels of a hierarchy or tree. Different organizations use different names for the various levels and the types of objectives at each level, but otherwise there is a great deal of similarity in approach.

This approach organizes objectives into three broad levels:

- Policy
- Strategic, and
- Operational.

In general, these levels correspond to the top, middle, and working levels of management in an organization. Broad, general objectives, some people call them "goals", that policymakers deal with, for example: "improve economic growth", fall into the top level and are called "policy objectives".

Objectives that are narrower in scope, such as "increase literacy for teenage girls", fall into the middle level and are called "strategic objectives". Objectives that relate directly to a project's deliverables fall into the operational level and are called "project objectives". Objectives that relate to project inputs, i.e. what is needed to make a project function, are also considered operational and are called "input objectives". Operational objectives are usually the concern of working management, including project managers.

As shown in the below figure, the hierarchy has four types of objectives: policy, strategic, project, and input and they are grouped into three levels: policy, strategic, and operational.

Policy Objective	Offering the best customer service available on the market
Strategic Objective	Reduce Customer complaints
Project Objective	Deploy New Call Center
Input Objective	\$1.7 Million contract, assists, labor

Table 32 Hierarchy of Project Objectives

Policy Objective: The overall policy objective is to "Offering the best customer service available on the market ". We then ask: How is this to be accomplished? That brings us to the next lower objective, the strategic objective.

Strategic Objective: One way that the country is trying to increase customer satisfaction, the policy objective, is by producing " Reduce Customer complaints ". This is the strategic objective for the project. Of course, there may be other strategic objectives and additional projects that also support the overall policy objective. Again we ask: "How customer satisfaction can be obtained?" The answer takes us to the next lower level of objective in the hierarchy, i.e. the project objective.

Project Objective: The project objective in most cases is the same as the deliverable for the project. In this case, it is to " Deploy New Call Center." Asking: "How is the call center to be built?", again takes us to the next lower level of objective, the input objective.

Input Objective: The input objectives relate primarily to the resources and conditions that are required to accomplish the project. For the new call center, they consist of a "\$1.7 million contract, assets for the call center, and necessary labor" as well as expertise

Scope Statement

1.Introduction

Due to SpeedTelecom dramatic growth in recent years, we have decided to relocate our customer support call center team from our current office locations to a single office premise based in the area. To ensure that this office move is undertaken smoothly and without affecting the SpeedTelecom business, we have decided to outsource the installation of the new system, design, fit-out and relocation activities to an external supplier.

This document describes the scope of work to be undertaken by that supplier, as well as the:

Primary objectives to be achieved by the supplier

Basic responsibilities of the supplier and the project team

Key terms for supply, under which the work must be performed

If you are interested in being the preferred supplier for this project, the attached Request for Information describes the information we need to know about your company and your solution offerings, as well as the process by which you must submit that information to us for consideration.

2. Objectives

The preferred supplier to this project will be expected to meet the following objectives:

- Design the new premise to house a total of 50 staff, 12 offices, three meeting rooms, a kitchen and for staff entertainment area
- Manage the entire fit-out of the new premise by installing cabling, fixed and moveable partitioning, plumbing, electrical fittings and all interior decorating in accordance with the architectural design
- Relocate the entire SpeedTelecom operation to the new premise within a single weekend to ensure that the business operation remains unaffected by the move
- Clean up our existing premise after the move to comply with the terms specified in our tenancy agreement

3 Scope of Work

The preferred supplier must deliver the following procurement items to achieve the objectives stated above.

Procurement Item	Item Description	Item Quantity	Delivery Timeframe
Architectural design of the new premise	Design the layout for the new premise to meet the following criteria: - Facilities for 50 staff, 12 offices, three meeting rooms, a kitchen and a staff entertainment area - Has practical partitioning, office and meeting room layouts - Is primarily open plan - Makes use of natural lighting - Is structured to provide office views for managers - Provides a Boardroom suitable for 12 people - Contains a network services room with space for two racks of equipment - A friendly reception environment with seating for up to 10 visitors	1	Within 2 weeks of the approval of the Supplier Contract
Complete fit-out of the new premise	Construct the new office fit-out, including installation of: - Office telecommunications links to desks - Fiber optic telecommunications links to the network room - Power, lighting and general services - Partitioning of the new kitchen and office - The final interior fit-out (painting, partitioning, carpeting, lighting and electrical fittings)	As specified by the Architectural Design	Within 1 month of the approval of the Supplier Contract
Install New Software	Configure and install new system including:		With in 1 month of the Approval of

	• Create a detailed architectural design of the new computer network. • Build the file server to act as the central store of all documents, images and data to be accessed by users and applications. • Build the application server to hold all core business applications • Configure the application server according to the design documentation • Install and configure communications hardware and software (e.g. routers, hubs, racks, cabling, firewall, switches and UPS) • Perform end-to-end performance and reliability testing across the network, testing the functionality of the business applications, the accuracy of application data and the overall performance of the new network.		the Supplier Contract
Relocation to the new premise	Relocation of all SpeedTelecom staff to the new premise by: • Documenting and communicating new seating locations • Moving furniture, equipment and personal belongings • Communicating the layout of the new premises to staff	N/A	Within 1 week after completing the new office
Tidy up existing premise	Completely tidy up the existing premise in accordance with the terms of our lease by: • Removing all surplus equipment, fittings and partitioning • Reinstating the original layout of the premise	N/A	Within 2 Weeks of relocating to the new premises.

	Cleaning the carpets, walls, and permanent fixtures and fittings		
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Table 33 Scope of Work

4 Responsibilities

To ensure that this scope of work is efficiently delivered by the supplier and accepted by the project team, we have listed each party's responsibilities below:

4.1 Supplier Responsibilities

The supplier will be responsible for:

- Meeting the objectives stated in this Statement of Work
- Delivering the specified procurement items within the timeframes and costs agreed to in the Supplier Contract
- Informing the project team of any risks or issues occurring during the course of the project
- Supplying the staff, equipment, sub-contractors and other resources required to deliver the scope of work
- Providing a weekly status report that clearly states the deliverables produced and the forecast delivery dates of deliverables yet to be produced
- Requesting the project team's acceptance of each item delivered

4.2 Project Responsibilities

The project team will be responsible for:

- Advising the supplier of the detailed requirements of the project
- Supporting the supplier throughout the project, by resolving questions, issues and risks in a timely fashion
- Approving any changes required to ensure that the supplier can meet the project objectives
- Communicating the status of this project within the SpeedTelecom business
- Identifying issues related to the supplier's performance

5. Project Budget

Expense Category	Expense Description	Expense Value	Expense Type
Premise	Refit of new office space in existing ST premise	\$220,000	Capital
	Installation of new telecommunications equipment	\$80,000	Capital
	New office furniture and office equipment	\$25,000	Capital
	Closure old Help Desk premises	\$10,000	Capital
Personnel	Staff relocation	\$120,000	Capital
	Training and recruitment	\$70,000	Capital
Marketing	Advertising to existing client base	\$250,000	Capital
Operations	Creation of new processes and standards	\$50,000	Capital
	Deployment of new Help Desk system	\$375,000	Capital
	Project Team Manpower	\$463,200	Capital
	Integration of new system with other ST systems	\$120,000	Capital
Total Expense Incurred		\$1,783,200	

Table 34 Project Cost

6. Project Milestones:

The following schedule describes the key activities and timescales involved in implementing this project.

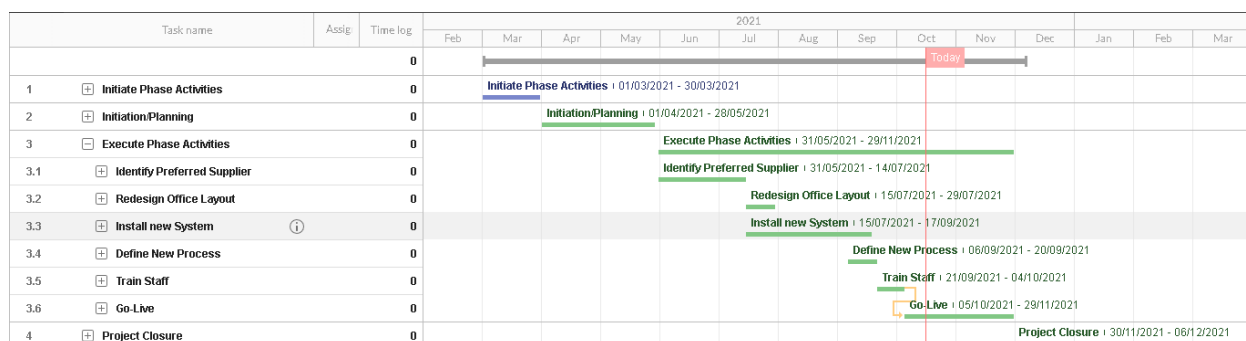


Figure 14 Project Milestones

7. Acceptance Criteria

The following Acceptance Criteria were established by the Project Manager:

Deliverable	Acceptance Criteria	Acceptance Standards
Implement a new System	The new system provides: 1. All of the existing functionality offered by the existing branch systems 2. Integration with the company's administrative systems 3. Comprehensive management reporting functionality 4. Full auditing capabilities to comply with legal standards and protect company assets	The new system: 1. Provides 100% of the common functionality available within existing branch systems 2. Can exchange transaction data with the Finance, Client Management and Call Center system 3. Gives Senior Management a comprehensive view of overall company performance 4. All transactions can be fully traced and reported on
Implement a common set of processes	The new processes provide common: 1. Guidelines and standards for customer services 2. Processes and procedures for resolution of client issues 3. Rules and criteria for mortgage approval	The new processes enable company officers to: 1. Improve levels of customer service 2. More efficiently monitor and resolve client problems and issues 3. Clearly communicate to customers the fundamental rules and criteria for approving mortgages
Train all staff in the new system and processes	The following staff are trained in the new systems and processes: • Branch Client Service Officers • Branch Team Leaders • Branch Managers • Head Office Administration Staff • Head Office Management	All specified staff understand: • How to use the core system functionality • The basic processes and business rules involved in approving mortgage requests • Who is available to provide assistance with the system and its associated business processes
Implement new office	The new office must provide: • Facilities for 50 staff, 12 offices, three meeting rooms, a kitchen and a staff entertainment area • Has practical partitioning, office and meeting room layouts • Makes use of natural lighting	The new office provide: • A space to accommodate the staff in accordance to the safety standards. • Meet the code of buildings. • Meet the environmental standards.

	• Provides a Boardroom suitable for 12 people	
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Table 35 Acceptance Criteria

Scope Creep

What is scope creep?

“Scope creep” refers to project changes that happen once the project’s terms have been defined and work on the project has begun. Scope creep isn’t always bad—when you truly understand it, you can become a project whisperer. But one thing’s for sure: scope creep always involves the disconnect between your plans and the work people expect you to complete.

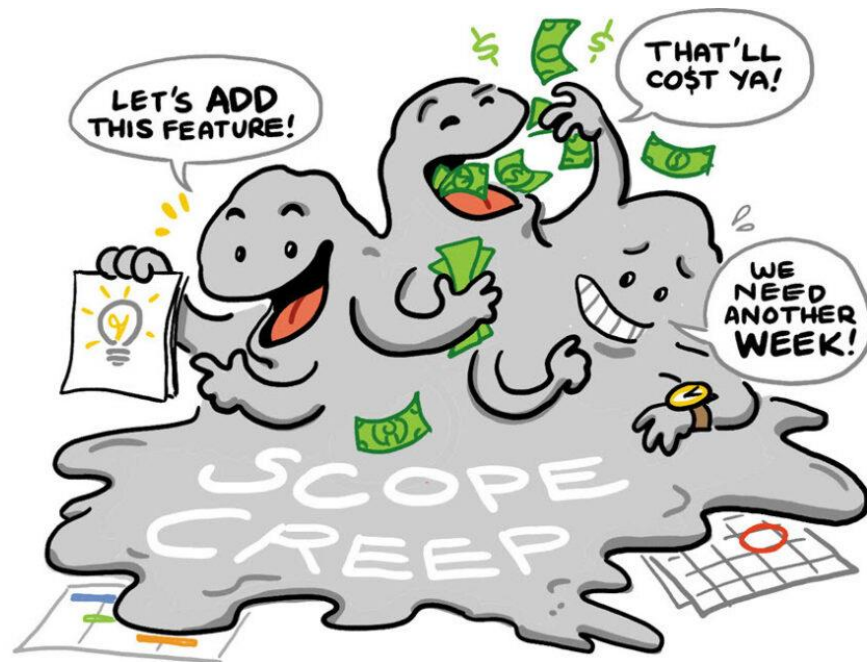


Figure 15 Scope Creep

How does scope creep impact the project and its environment?

- Goals and outcomes change
- Stakeholder relationships and alignment suffer
- Project scope, timeline, and budget stretch out
- Project slows down/pauses
- People lose faith in a successful launch

- Teams get stressed and prickly or people may quit

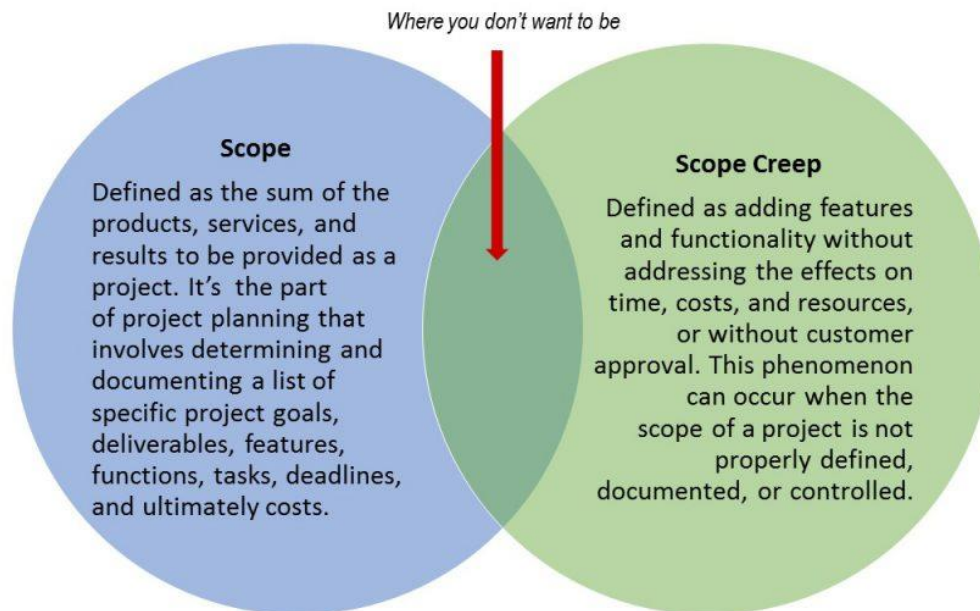


Figure 16 Scope Vs Scope Creep

Scope Creep Examples:

Problem	Cause	Fix
Promises don't align with project reality	Sometimes client facing teams will experience a situation where their business developer sold an impossible project or a high level stakeholder wants to impress his market by creating a fantasy project. This sets the project up for failure as the team literally can't build what they've been contracted to do.	Have a conversation with the decision makers on the project and buy some time. It's possible to add additional budget and time to this project, but only if there's a lot of trust. work with them to get alignment on sales criteria for future projects.
Lack of skills or knowledge to	Every time you build a new product, the technology you	Consider taking a more agile or flexible approach to the

complete the work	use is often outdated well before it launches. Chalk it up to the exponential growth of tech. This usually means you have to learn new technologies or add-ons or approaches every time you start another project. Think about how teams estimate or scope for work they've never done before: they can't do it well (and that's okay).	scope so you can spend time learning. Build in more research time to learn the tool or technology (maybe treat some of that budget as professional development rather than billing directly to the client if you're not confident in outcomes). Even better? Say no to projects that take you further away from your educational goals or don't align with your expertise.
Stakeholders are scared of screwing up or disappointing others	Your team or other decision makers have Imposter Syndrome and are afraid to be honest about what they're up to in case it falls short of expectations. This happens when people on the team put a lot of pressure on themselves to be perfect. It also happens when middle managers are scared that they might lose their power or be trampled by others who are higher on the ladder. Hope creep naturally oozes out of people's need for approval and acceptance.	Talk openly with teams and external stakeholders about mistakes, failures, and working together for continuous improvement. Focus less on nailing it the first time, and more on listening and sharing collaboratively to prioritize the right things. The first draft shouldn't be perfect, but your team and clients need you to help them see and genuinely believe that. This is reinforced through your organization's culture.
Stakeholders keep asking for more features	Stakeholders will always get excited and want to change	Use your scripts. If you know the request is out of scope,

	and add more things. It's practically in our DNA to want to improve things constantly. They may also want to see if you'll bend a little and throw in a few freebies. The problem is, unplanned changes mean no additional time or budget to do them. Companies can't survive on goodwill alone. Gold plating can sink you one change at a time.	immediately respond that you can add this to the ideas pile for future since you want to maintain project priorities. If you're not sure if something's out of scope, buy some time to chat with your team. Chances are, the request is out of scope and you can shelf it for a later phase and additional budget. If the request is in scope and doesn't shift priorities, look at your available schedule and slot it in when it makes sense.
Poor Estimation	Getting estimation of timeline accurate can be potentially problematic. It is difficult to be accurate and foresee any and all changes to a project at its conception, since there are still many unknowns. Certain things may not get properly accounted for, meaning your team will be tied to additional scope in order to deliver the project.	Estimate for a discovery period where you will determine what it is your end product will be – at the end of this period, you will be able to provide a more accurate estimate for the remainder of the project. Use a Time and Materials pricing model, rather than estimating by a Fixed Price. Actual worked hours on the project are what are billed, so the former can offer much more flexibility. Avoid specifying the exact features being built and how within the scope – be specific but allow some room for change if needed.

Table 36 Scope Creep Examples

Scope creep does not have to be the enemy for your project development. At its core, it describes unexpected change. The way you go about managing that change is what ultimately affects your project, not the request to change it. Remaining watchful for when you spot scope creep is critical, especially when it isn't apparent to the rest of your team, so ensuring you raise it before it spirals should be a given. However, change can actually be largely beneficial to your project, if you leverage it in the right way. The objective of your project should always be to deliver the best possible product or service you can, so if that objective requires a change in parameters every now and then, you as a project manager need to lead the way for adapting to that.

Product Analysis Management

Product Analysis for projects that have a product as a deliverable, it is a tool to define scope that generally means asking questions about a product and forming answers to describe the use, characteristics, and other relevant aspects of what is going to be built or manufactured.

Product analysis can be used to define products and services. It includes asking questions about a product or service and forming answers to describe the use, characteristics, and other relevant aspects of what is going to be delivered. Each application area has one or more generally accepted methods for translating high-level product or service descriptions into meaningful deliverable's. Requirements are captured at a high level and decomposed to the level of detail needed to design the final product.

Requirements analysis encompasses those tasks that go into determining the needs or conditions to meet for a new or altered product or project, taking account of the possibly conflicting requirements of the various stakeholders, analyzing, documenting, validating and managing requirements. Requirements analysis is critical to the success or failure of any project. The requirements should be documented, actionable, measurable, testable, traceable, related to identified business needs or opportunities, and defined to a level of detail sufficient for further planning and illustrated in the below figure:

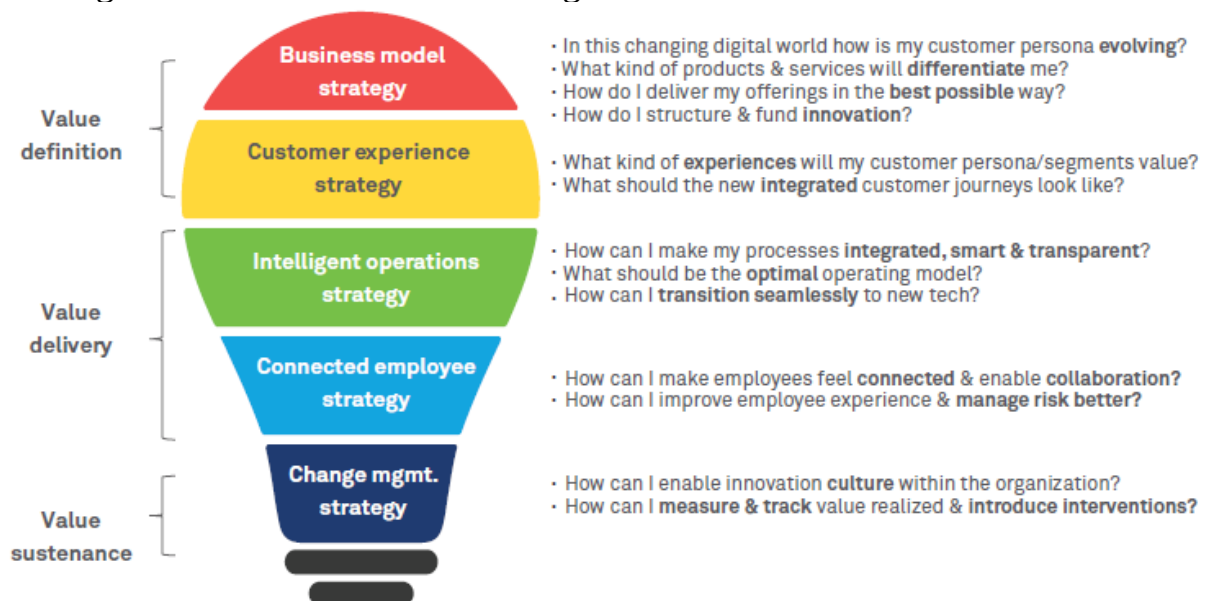


Figure 17 Requirement Analysis for Call Center

Work Breakdown Sturcture (WBS)

A work breakdown structure (WBS) is a visual, hierarchical and deliverable-oriented deconstruction of a project. It is a helpful diagram for project managers because it allows them to work backwards from the final deliverable of a project and identify all the activities needed to achieve a successful project.

All the steps of a project are outlined in the organizational chart of a work breakdown structure, which makes it an essential project management tool for planning and scheduling. The final deliverable rests on top of the diagram, and the levels below subdivide the project scope to indicate the phases, deliverables and tasks that are needed to complete the project.

Project managers make use of project management software to lay out and execute a work breakdown structure. When used in combination with a Gantt chart that incorporates WBS hierarchies, project management software can be especially effective for planning, scheduling and executing projects.

Level 1	Level 2	Level 3	Level 4
1 SpeedTelcom Call Center Project	1.1 Initiation	1.1.1 Develop Business Case 1.1.2 Defining and engaging stakeholders 1.1.3 Develop Project Charter 1.1.4 Management Activities Completed	
	1.2 Planning	1.2.1 Conduct Feasibility Study 1.2.2 Create Stakeholder engagement plan 1.2.3 Conduct Workshops with SMEs 1.2.4 Appoint Project Team 1.2.5 Create Schedule 1.2.6 Create Budget plan 1.2.7 Create WBS plan 1.2.8 Create Project Charter 1.2.9 Complete Business case	
	1.3 Execution	1.3.1 Identify Preferred Supplier 1.3.2 Redesign Office Layout	1.3.1.1 Issue RFP 1.3.1.2 Issue Contract 1.3.2.1 Design Office Layout 1.3.2.2 Install Office Equip.

Level 1	Level 2	Level 3	Level 4
		1.3.3 Install new System	1.3.3.1 Design System Configuration 1.3.3.2 Configure System 1.3.3.3 Create Database 1.3.3.4 Perform System Testing 1.3.3.5 Perform Performance testing
		1.3.4 Install Hardware	1.3.4.1 Install System 1.3.4.2 Create New Website 1.3.4.3 Perform Final User Testing
		1.3.5 Train Staff	1.3.5.1 Conduct Pre-Go Live 1.3.5.2 Training sessions to power users 1.3.5.3 Train support team for maintenance 1.3.5.4 Staff Relocation 1.3.5.5 Closer of Old Help Desk Premises 1.3.5.6 Conduct Change Management
		1.3.6 Go-Live	1.3.6.1 Launch New Helpdesk Center 1.3.6.2 Monitor Implementation 1.3.6.3 Provide Post Go-Live Training Support 1.3.6.4 Conduct Advertising to existing client base
	1.5 Closeout	1.4.1 Complete Project Documentation materials 1.4.2 Create Lessons Learned Documents 1.4.3 Sign off Project Closure Document	

Table 37 WBS table with levels

At the top of the work breakdown structure is the final deliverable (in this instance, the call center project). Immediately beneath that is the next stage of deliverables, which are the main tasks required to complete the project.

Each of those four project phases—initiation, planning, execution, and closeout—branch off the main deliverable at the top. Once decided, they are then broken down into a series of tasks. For example, the initiation phase includes develop business case and developing the project charter.



Figure 18 Work Breakdown Structure

Defining project activity relationship

When you determine the sequence of activities in a project you need to pay attention to dependencies between these activities. Some activities might require predecessor or successor activities to be completed or started before they can be started or completed themselves. According to the Guide to the Project Management Body of Knowledge (PMBOK®, 6th ed., ch. 6.3.2), this is done by applying a technique called precedence diagramming method (PDM).

The Precedence Diagramming Method (PDM)

PDM is a scheduling technique of the 'sequence activities' process in PMI methodology. The precedence diagramming method can be used for creating a project schedule network diagram which is an output of this process that is used as an input for the 'develop schedule' process (PMBOK, ch. 6.3.2, 6.5).

The method involves the identification and visualization of the sequence and dependencies of activities in a project or a part of a project, such as a workstream or a work package.

The model can reflect 4 types of dependencies – also referred to as logical relationships – that are introduced in the next section. These dependencies form the connection between successor activities and predecessor activities which are shown as nodes in the diagram. This is similar to the activity-on-node or activity-on arrow method yet more flexible as it allows overlaps of activities (source).

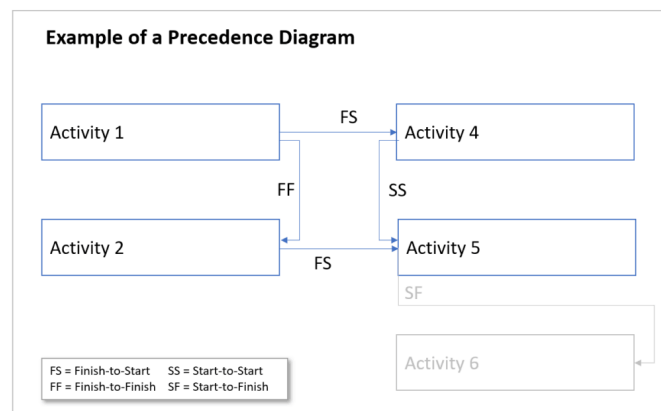


Figure 19 Example of precedence diagram

8 Basic Rules to Follow in Developing Project Networks

1. Networks flow typically from left to right
2. An activity cannot begin until all preceding connected activities have been completed
3. Arrows on networks indicate precedence and flow. Arrows can cross over each other
4. Each activity should have a unique identification number
5. An activity identification number must be larger than that of any activities that precede it
6. Looping is not allowed
7. Conditional statements are not allowed (If successful, do something; if not, do nothing)
8. When there are multiple starts, a common start node can be used to indicate a clear project beginning on the network. (A single project end node can be used to indicate a clear ending)

Network Computation Process used to calculate the critical path

Forward Pass—Earliest Times

- How soon can the activity start? (early start—ES)
- How soon can the activity finish? (early finish—EF)
- How soon can the project finish? (expected time—ET)

Backward Pass—Latest Times

- How late can the activity start? (late start—LS)
- How late can the activity finish? (late finish—LF)
- Which activities represent the critical path?
- How long can activity be delayed? (slack or float—SL)

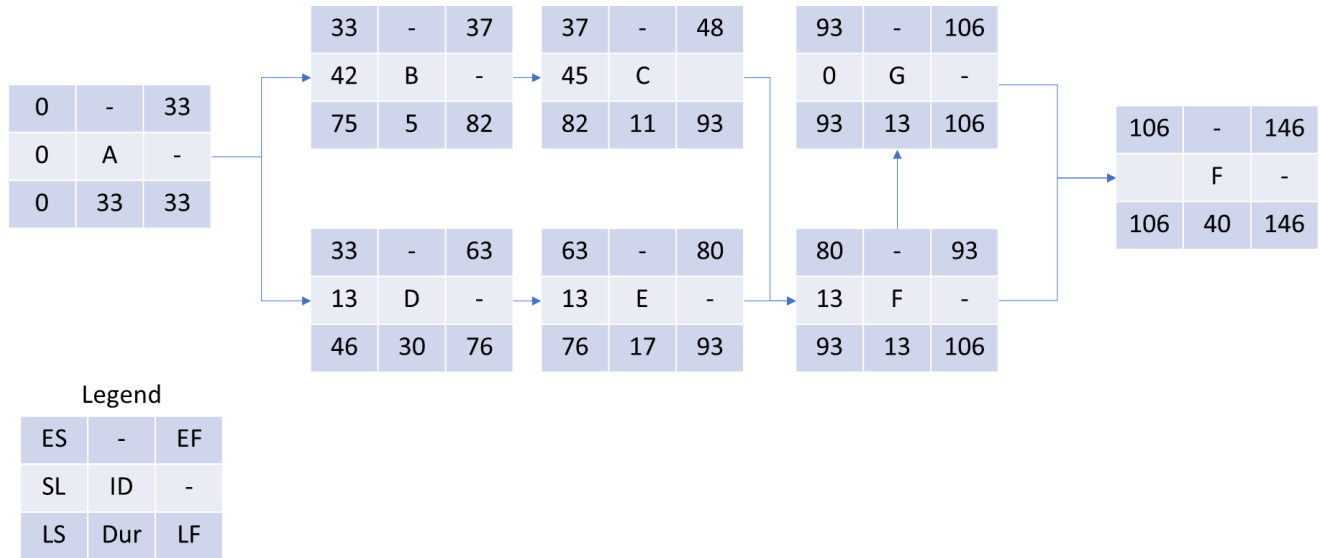


Figure 20 Call Center Project Network

Activity	Description	Preceding Activity	Earliest Start Es	Earliest Finish EF	Late Start LS	Late Finish LF	Slack LS – ES	On Critical Path
A	Identify Supplier	-	0	33	0	33	0	Yes
B	Redesign Office Layout	A	33	37	75	82	42	No
C	Install new Office Layout	B	37	48	82	93	45	No
D	Install new system	A	33	63	46	76	13	No
E	Install Hardware	D	63	80	76	93	13	No
F	Train Staff	C,D,E	80	93	93	106	13	No
G	Relocate Staff	F	93	106	93	106	0	Yes
H	Go Live	F, G	106	146	106	146	0	Yes

Activities with zero slack are on the critical path. It:

- Starts at the first activity in the project
- Terminates at the last activity in the project
- Includes only critical activities

Critical Path: A – G – H

Project Duration: 146 days

Table 38 Project Critical Path

Gantt chart and Milestones model

What is a Gantt chart?

According to Wikipedia, “A Gantt chart is a type of bar chart that illustrates a project schedule and shows the dependency relationships between activities and current schedule status.”

In simpler words, Gantt charts are a visual view of tasks displayed against time. They represent critical information such as who is assigned to what, duration of tasks, and overlapping activities in a project.

All in all, Gantt charts are the perfect allies for planning, scheduling, and managing a project.

Benefits of Gantt charts

1. Know what's going on in your projects
2. Improved communication and team cohesion
3. Avoid resource overload
4. Measure the progress of projects
5. See overlapping activities and task dependencies
6. Experience more clarity
7. Practice better time management
8. Work with remote team members and motivate them
9. Boost flexibility

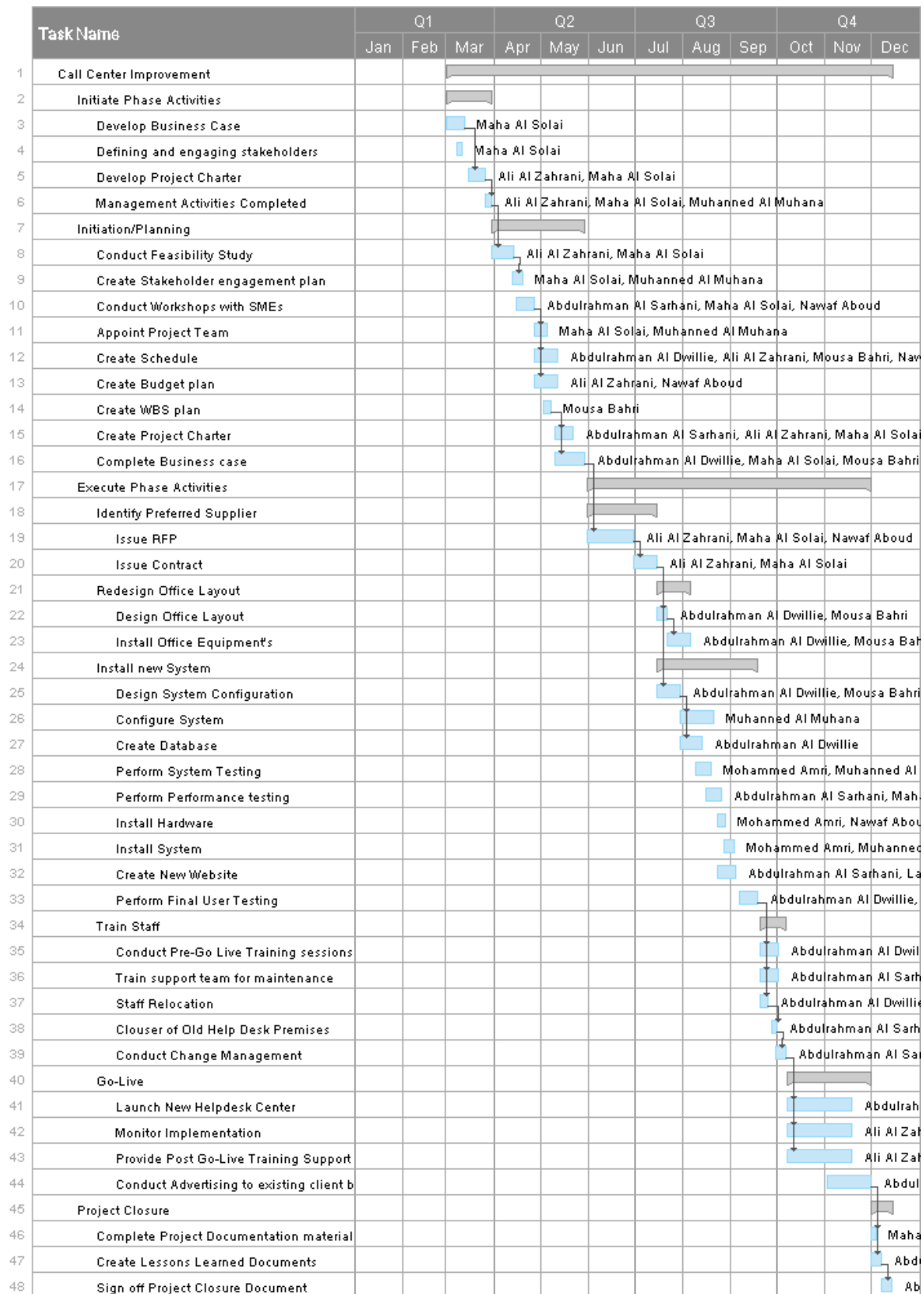


Figure 21 Project Gantt Chart

A project milestone is a management tool that is used to delineate a point in a project schedule. These points can note the start and finish of a project and mark the completion of a major phase of work. Milestones can be used to symbolize anything that has started or finished, though it's primarily used as a scheduling tool.

If a milestone focuses on major progress points in a project, you can see how it is useful in scheduling. Just as tasks break a larger project into manageable parts, milestones break off project phases to help project managers plan, schedule and execute them.

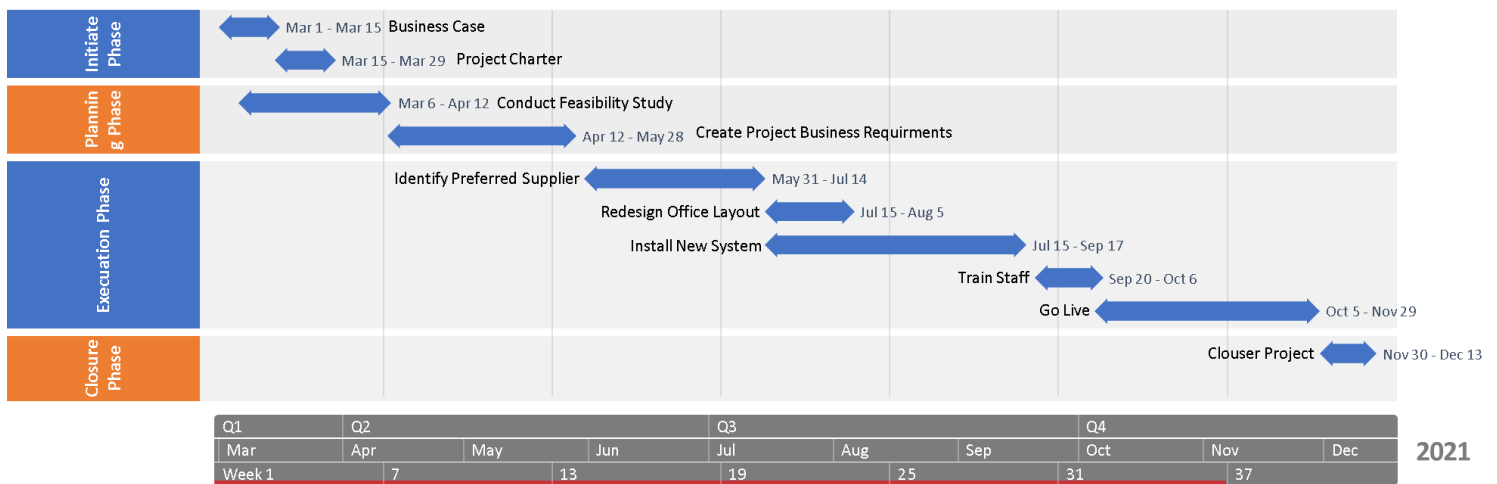


Figure 22 Project Milestones

Deming Model for Quality Check

The Plan-Do-Check-Act (PDCA) Cycle is a four-step problem-solving iterative technique used to improve business processes. Originally developed by American physicist Walter A. Shewhart during the 1920s, the cycle draws its inspiration from the continuous evaluation of management practices and management's willingness to adopt and disregard unsupported ideas.

The method was popularized by quality control pioneer Dr. W. Edwards Deming in the 1950s who coined the term "Shewhart" Cycle after his mentor. It was Deming who realized the PDCA Cycle could be used to improve production processes in the United States during World War II.

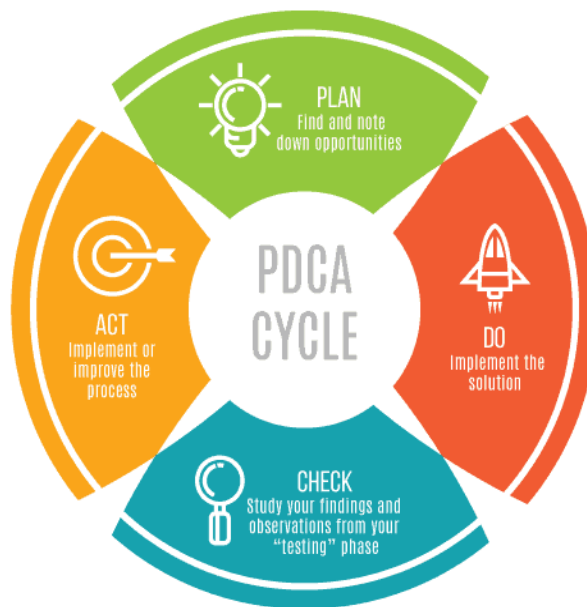


Figure 23 PDCA Cycle

How the PDCA Cycle Works

The PDCA Cycle can help differentiate a company from its competitors, particularly in today's corporate world, where businesses are always searching for ways to

streamline their processes, reduce costs, increase profits, and improve customer satisfaction.

Many managers apply the PDCA Cycle unknowingly to help direct their organizations as it encompasses the basic tenets of strategic planning. The four components of the PDCA Cycle are outlined below.

Plan

A well-defined project plan provides a framework for operations. Importantly, it should reflect the organization's mission and values. It should also map the project's goals and clearly indicate the best way to attain them.

Do

This is the step where the plan is set in motion. The plan was made for a reason, so it is important for players to execute it as outlined. This stage can be broken down into three sub-segments, including training of all personnel involved in the project, the actual process of doing the work, and recording insights, or data, for future evaluation.

Check

Typically, there should be two checks throughout the project. First, checks alongside implementation ensure the project's objectives are being met. Second, a more comprehensive review of the project carried out upon completion addresses the successes and failures so that future adjustments can be made.

Act

The final step is to take corrective action once past mistakes have been identified and resolved. The PDCA Cycle is repeated and can be redefined perhaps to better results under new guidelines.

Using PDCA for Speed Telecom Call Center

In the past, ST offered a level of customer service which was second to none in the market, by localizing the service offered to customers. Five regional offices were

established to enable the company to offer personalized services to new and existing clients in their local regions. As ST have grown, additional pressure has been placed on these local offices due to the increase in the number of clients each office is required to support. In response to this added pressure, each office has developed its own Help Desk to support customer queries and complaints.

Historically, ST has had received complaints from less than 0.1% of its customers per year. However, in the past 12 months, it has been noticed that the number of complaints has risen to more than 5%, and it is beginning to affect the company's reputation in the marketplace.

Plan

Any student of project management principles knows the importance a proper plan has in the success of any task. While the PDCA approach is no doubt popular, it was modified to OPDCA with the O representing "Observation". This hasn't caught on with most people, but we can adopt it here. Observing the trends in information gathered by your current call center system helps you answer the question, "what am I doing now?", which is a precursor to the question every futuristic organization should ask: "What can I do better"? Answering these questions requires the development of an improvement plan and I have outlined a few more questions the plan must answer:

- What is the problem with my current call center management system?
- What are the limitations of my current system?
- How can we intelligently collect and store customer support data in a format that allows us to analyze it?
- How can we integrate our call center management system effectively with all our customer interaction points?
- Do we have global visibility on all complaints that come into our organization?
- Which new system would help us easily spot complaints trends?

- How easily can customers interface with our support handling process?
- Are we open enough to receive customer complaints?
- Do we have a well-defined policy on how to handle customer complaints?
- What do we want to achieve with customer complaints data?

Do

It is important that before you start implementing your new call center management process, you measure, from a customer's perspective, the satisfaction rating with how things currently are. How do we know if our investments have paid off if we do not know where we were before?

Once you have your plan and customer rating in place, the next step is implementation. What is also important with implementing a new support system is setting clear and measurable goals as to what you intend for the system to achieve. Any team in charge of this implementation must wholly believe in the project, as it is critical to its success.

What is needed?

- First, compare the current support management system (process and IT infrastructure) with globally acclaimed Customer Relationship Management (CRM) systems. If the current system still involves resolving issues via email, we will have to eliminate it anyway.
- Define all the necessary information to be collected from customers when they make complaints or create a ticket. Collecting information about the customer is just important as collecting information about the complaint being made.
- Develop and communicate internally and externally a customer support handling policy.
- Deploy a CRM application that can easily integrate with all your existing systems. This is important as a CRM solution is only as good as the data it has in it or has access to. Most CRM solutions rely on external sources for data (especially existing data) hence the need to ensure whatever you buy can easily integrate.

- Make customer support a key part of your CRM strategy.
- Create a process to record lessons learnt from results of effective root cause analyses. This would form a knowledge base for newly recruited staff in your complaints handling chain.
- Set thresholds for customer support tickets received per category. Clearly define a process that would be activated once a threshold is met.
- Define clear escalation paths for customers unsatisfied with resolutions provided to their requirements.

Check

Now that we have successfully planned and implemented for the call center management system, we need to measure customer satisfaction before implementing the new system - now is the time to check if any improvements have been made as follows:

- First, we must set a time frame to constantly review results from the customer support handling process.
- Continually survey customers that have interacted with our new process to sample opinion from a customer's perspective on its effectiveness.

Act

Using the results from our "Check" stage to improve the process. If customer feedback shows dissatisfaction with a particular aspect of the customer support process, focusing on it and come up with strategies to improve it.

Asking a few customers what they would like to see improved in that process, taking their feedback onboard and implement it. After a few months, going back to that focus area and appraise the success or failure of the strategy deployed.

SIPOC Diagram

SIPOC (which stands for 'suppliers,' 'inputs,' 'process,' 'outputs,' and 'customers') is a process improvement tool that allows people to document their business processes. SIPOC is primarily used in conjunction with Six Sigma, business process management, and lean manufacturing principles (such as DMAIC), but it can also be used in a standalone manner.

SIPOC isn't some new-fangled business concoction; it dates back to the 1980s, when it was first used in total quality management programs. Customer-centric organizations will use this alternative — which is SIPOC reversed — so they can define who the customers are in any given process first.

When working for anything, there is a purpose behind it that initiates when we know to recognize the need and the problems, we are facing to achieve it. The basic purpose of the SIPOC diagram is to track out the customers and their needs and eventually organize a team to meet the needs of the customers by ensuring the quality process for the improvement of that particular project. There are some key guidelines to get your purpose fulfilled like:

- Being a new business entity, if you do not know SIPOC, then make sure you arrange a professional training team to elaborate the SIPOC diagram and its applications to bring your projects to a high-quality level.
- If you know something about SIPOC that you have learned or heard years ago, arrange a booster session for you and your employees where old and new both employees would better understand the SIPOC diagram.
- After that, when you and your team have both defined the purpose of your project and decided what you want from this project, now it is time to map out the process by using the SIPOC diagram that is sometimes also called a COPUS diagram.

Benefits of a SIPOC

- Increases transparency across an organization.
- Provides an overview of a project for stakeholders.
- Can be used as a training tool for newer employees.
- Helps with problem-solving initiatives.
- Creates a template that can be reused for various processes and projects.
- Ensures all team members are on the same page.

The below table illustrating the SpeedTelecom Call Center with SIPOC tool:

S	I	P	O	C
Suppliers	Inputs (& Resources)	Process	Output	Customer
Phone Service Provider	Active Phone Line	(Automated) Answer Call	Call Engaged	Client
IT Group	Internal Call Switch			
	Switching Software			
Call Center Management	Available Representative	(Staff) Gather Customer Information	Information in System	
IT Group	Call Management Software			
	Database Available	(Staff) Assess Ability to Resolve	Escalation Decision	
Human Resources/ Training	Staff Experience/Training			
Call Center Management	Available Staff for Transfer	(Staff) Transfer Call	Next-Level Support Staff Engaged	
Documentation Group	System Documentation	(Staff) Gather Resolution Information	Resolution Information	
IT Group	FAQ Database			
	Client Configuration Information			
Call Center Staff	Customer Availability (on Callback)	(Staff) Deliver Resolution Information	Call Data Logged to Customer File and FAQ	
	Call Management Software	(Staff) Log Call Data		
	Staff Availability			
	Staff Discipline			
IT Group (Web Monitor Application)	Web Monitor	(Automated/Internet) Confirm Resolution with Customer	Documented Call Resolution	
	(Customer) Internet Access			

Figure 24 SIPOC Call Center

Root Cause Analysis

It is well known that gaining satisfaction from customers you serve can help a company grow. When this area starts to weaken then immediate attention must be taken to figure out what is going on. It is important to find out why there is low customer satisfaction for the business to succeed. Once the areas of weakness have been acknowledged then training your employees to improve in these areas is vital.

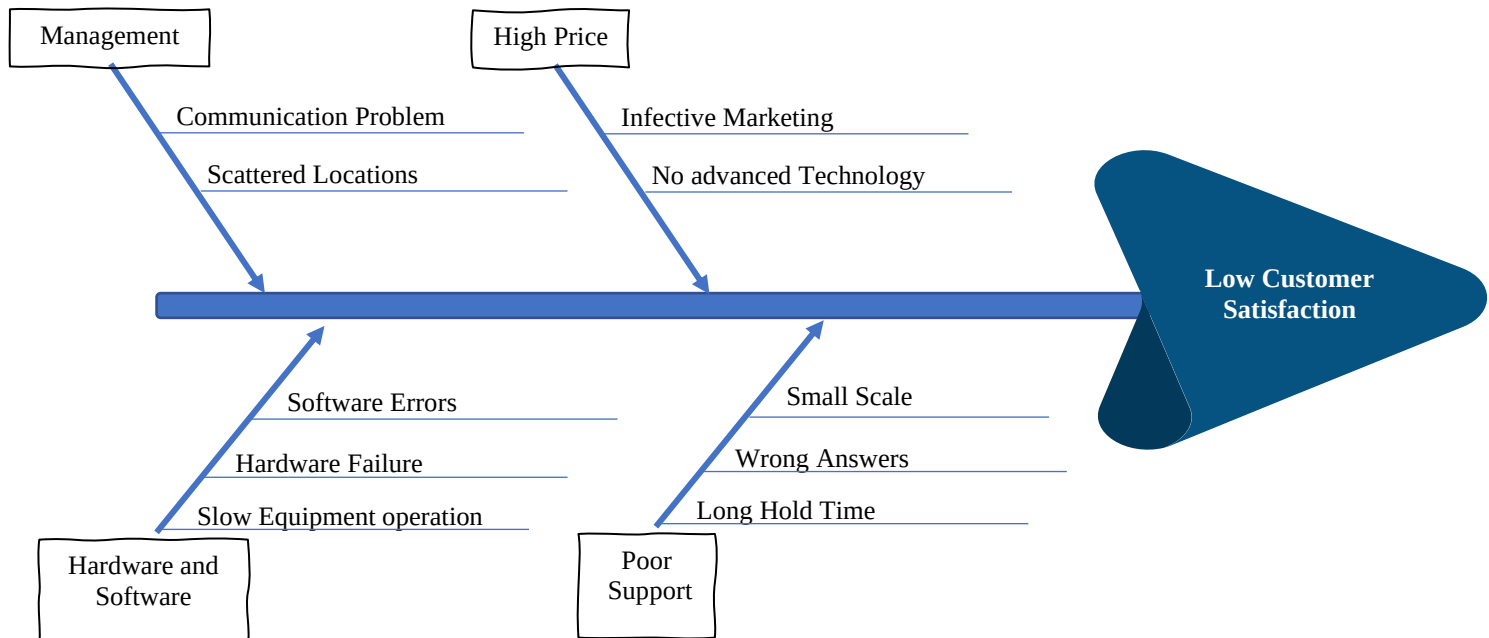


Figure 25 (Ishikawa) Root Cause Analysis

Cost Breakdown Structure

A Cost Breakdown Structure (CBS) is a breakdown or hierarchical representation of the various costs in a project. The Cost Breakdown Structure represents the costs of the components in the Work Breakdown Structure (WBS). The CBS is a critical tool in managing and the financial aspects of any project and creates a structure for applying measurable cost controls.

The below table shows the CBS linked to the WBS for the call center improvement project:

Task Name	Material Cost	Labor Cost	Total Cost
Call Center Improvement	\$1,305,000	\$478,120	\$1,783,120
Initiate Phase Activities	\$28,000	\$18,120	\$46,120
Develop Business Case	\$20,000	\$5,600	\$25,600
Defining and engaging stakeholders	\$2,000	\$1,680	\$3,680
Develop Project Charter	\$1,000	\$8,280	\$9,280
Management Activities Completed	\$5,000	\$2,560	\$7,560
Initiation/Planning	\$107,000	\$86,840	\$193,840
Conduct Feasibility Study	\$30,000	\$9,200	\$39,200
Create Stakeholder engagement plan	\$20,000	\$4,600	\$24,600
Conduct Workshops with SMEs	\$10,000	\$9,920	\$19,920
Appoint Project Team	\$2,000	\$5,520	\$7,520
Create Schedule	\$10,000	\$14,520	\$24,520
Create Budget plan	\$10,000	\$7,480	\$17,480
Create WBS plan	\$10,000	\$1,600	\$11,600
Create Project Charter	\$10,000	\$16,000	\$26,000
Complete Business case	\$5,000	\$18,000	\$23,000
Execute Phase Activities	\$1,120,000	\$351,000	\$1,471,000
Identify Preferred Supplier	\$35,000	\$37,400	\$72,400
Issue RFP	\$15,000	\$27,280	\$42,280
Issue Contract	\$20,000	\$10,120	\$30,120
Redesign Office Layout	\$270,000	\$10,240	\$280,240
Design Office Layout	\$20,000	\$3,200	\$23,200
Install Office Equipment's	\$250,000	\$7,040	\$257,040
Install new System	\$265,000	\$56,600	\$321,600
Design System Configuration	\$70,000	\$7,040	\$77,040
Configure System	\$20,000	\$5,760	\$25,760
Create Database	\$10,000	\$3,200	\$13,200
Perform System Testing	\$10,000	\$8,000	\$18,000

Task Name	Material Cost	Labor Cost	Total Cost
Perform Performance testing	\$10,000	\$12,800	\$22,800
Install Hardware	\$60,000	\$3,200	\$63,200
Install System	\$70,000	\$3,400	\$73,400
Create New Website	\$5,000	\$6,800	\$11,800
Perform Final User Testing	\$10,000	\$6,400	\$16,400
Train Staff	\$245,000	\$21,960	\$266,960
Conduct Pre-Go Live Training sessions to power users	\$35,000	\$6,400	\$41,400
Train support team for maintenance	\$50,000	\$6,800	\$56,800
Staff Relocation	\$120,000	\$3,200	\$123,200
Closure of Old Help Desk Premises	\$10,000	\$2,160	\$12,160
Conduct Change Management	\$30,000	\$3,400	\$33,400
Go-Live	\$305,000	\$224,800	\$529,800
Launch New Helpdesk Center	\$20,000	\$67,200	\$87,200
Monitor Implementation	\$20,000	\$57,600	\$77,600
Provide Post Go-Live Training Support	\$15,000	\$60,000	\$75,000
Conduct Advertising to existing client base	\$250,000	\$40,000	\$290,000
Project Closure	\$50,000	\$22,160	\$72,160
Complete Project Documentation materials	\$20,000	\$2,760	\$22,760
Create Lessons Learned Documents	\$20,000	\$11,200	\$31,200
Sign off Project Closure Document	\$10,000	\$8,200	\$18,200

Table 39 Cost Breakdown Structure

Calculating the Earned Value Management

The earned value management process can be split into three steps: collecting task information, evaluating performance, and making predictions based on current knowledge.

There are quite a few formulas involved;
we'll explain them and what they represent as we go along.

1. Collecting task information

At the start of the EVM process, we must look at all the tasks in our project and collect four data points for each task:

Scheduled progress, or how much of this task was supposed to have been completed by now (given in percentage);

Actual progress, or how much we've actually completed it (given in %); Budget, or how much money our project plan says we'll spend on it; and Cost, or how much money we've actually spent on it.

We must now calculate three important values for each task: planned value, actual cost, and earned value.

Planned value (or "budgeted cost of work scheduled") represents how much value we had planned to achieve thus far.

We can calculate the planned value of a task with:

- $PV = \text{scheduled progress} * \text{budget}.$

Actual cost (or "actual cost of work performed") represents how much money we've spent thus far.

If we have up-to-date expenditure information, we can simply state that:

- $AC = \text{current costs}.$

Earned value (or "budgeted cost of work performed") represents how much money's worth of progress we've achieved thus far.

We can calculate a task's earned value with:

- $EV = \text{actual progress} * \text{budget}$

2. Evaluating performance

Once we have the PV, AC, and EV for each task, we can combine them to calculate the total PV, AC, and EV for our project as a whole.

Then we can go about extracting useful information about our project's performance.

First, we'll calculate our cost performance index with $CPI = EV / AC$ and our schedule performance index with $SPI = EV / PV$.

CPI tells us how our project's budget is doing:

- If $CPI > 1$, our project is under budget.
- If $CPI < 1$, our project is over budget.
- If $CPI = 1$, our project is exactly on budget.

Similarly, SPI tells us how our project's schedule is doing:

- If $SPI > 1$, our project is ahead of schedule.
- If $SPI < 1$, our project is behind schedule.
- If $SPI = 1$, our project is exactly on schedule.

These performance indices are ratios.

So, if $SPI = 2$, it means our time performance is double what was planned, i.e., we've completed our tasks twice as fast as we had planned.

Some project managers prefer to use the slightly different but equivalent cost and schedule variances.

You can calculate these with cost variance = $(EV - AC) / EV$ and schedule variance = $(EV - PV) / PV$.

Here, positive answers are good news: if your cost variance is 20%, it means you're 20% under budget.

3. Making predictions

We can take earned value management even further to make predictions about our project's future:

The remaining cost of completing the project is formally called "estimate to complete" or ETC. We can estimate it with:

- $ETC = (\text{total budget} - EV) / CPI$.

The total cost of completing the project is called "estimate at completion" or EAC, and we can estimate it with:

- $EAC = AC + ETC$.

We can think of EAC as costs so far + costs remaining.

By using CPI in the equation for ETC, we assume that our current expenditure trend will be similar in the future.

ETC and EAC are therefore not infallible, but it's the best estimate we can make.

Example of Call Center Project to calculate Earned Value Management of the project after ending of 20% of its period and completion of 50% of the outputs case-by-case basis.

Months	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Grand Total
Budget Plan	85,320	94,040	102,880	30,120	396,240	189,200	283,360	239,800	343,960	18,200	1,783,120
Completion %			50%								
Budget Plan			708,600								
Actual Cost			570,000								

Inputs based on the values we have

Budget At Completion (BAC):	\$ 708,600.00
Planned Schedule Duration (Days):	200
Current Day:	40
Actual Work Completed (%):	50%
Total Spent (Actual Cost AC):	\$ 570,000.00

By implementing the EVM Calculations and putting the required values we will have the following calculations

Planned Value (PV):	\$ 141,720.00	Schedule Performance Index (SPI):	2.5
Earned Value (EV):	\$354,300.00	Estimate At Completion (EAC):	\$1,140,000.00
Cost Variance (CV):	\$(215,700.00)	Estimate To Completion (ETC):	\$ 570,000.00
Cost Performance Index (CPI):	0.621578947	Variance At Completion (VAC):	\$ (431,400.00)
Schedule Variance (SV):	\$ 212,580.00	To-Complete Performance Index (TCPI):	2.556277056
Planned Percent Completed:	20%		

Table 40 EVM Calculation

Cost

Cost performance index (CPI): 0.622

Cost variance: -60.88%

Conclusion: over budget

Schedule

Schedule performance index (SPI): 2.5

Schedule variance: 150%

Conclusion: ahead of schedule

Resource Leveling and Smoothing

It rarely happens that we have all resources as per the schedule to complete the project. Even if we have them, during project execution any risk can take away that freedom and we will have to manage with fewer resources.

Even when we have all necessary resources, as a project manager it is our responsibility to use resources efficiently and save costs for the company.

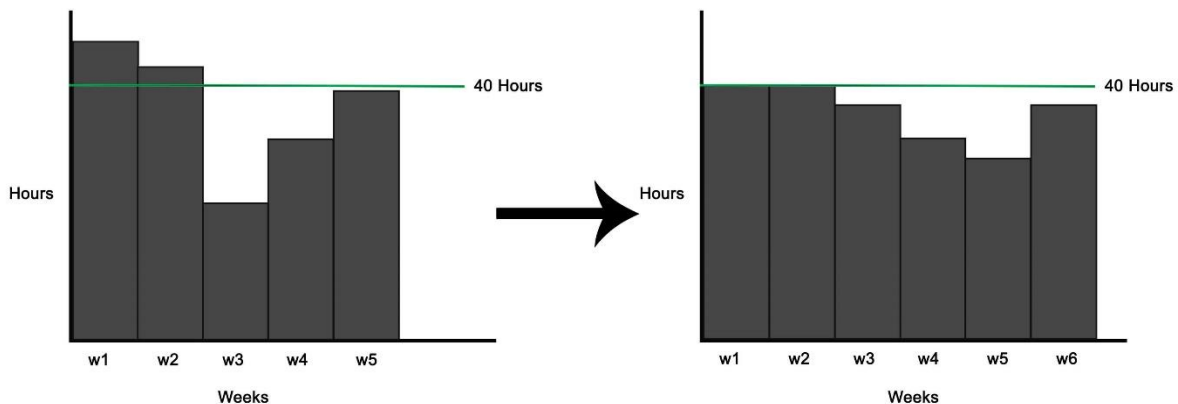
To achieve these objectives, we use resource optimization techniques. Two such resource optimization techniques are as follows:

- Resource Leveling
- Resource Smoothing

These techniques allow us to complete the project with minimal obstruction.

Resource Leveling

We use resource leveling when we have limited resources and we may extend the schedule.



Resource leveling is used when:

- A critical resource may not be available for a certain duration;
- A critical resource may not be available at a certain point of time;
- We have to share a resource with another project;
- The demand for a resource exceeds the supply.

We also use this technique when we must keep some resource usage at a constant level.

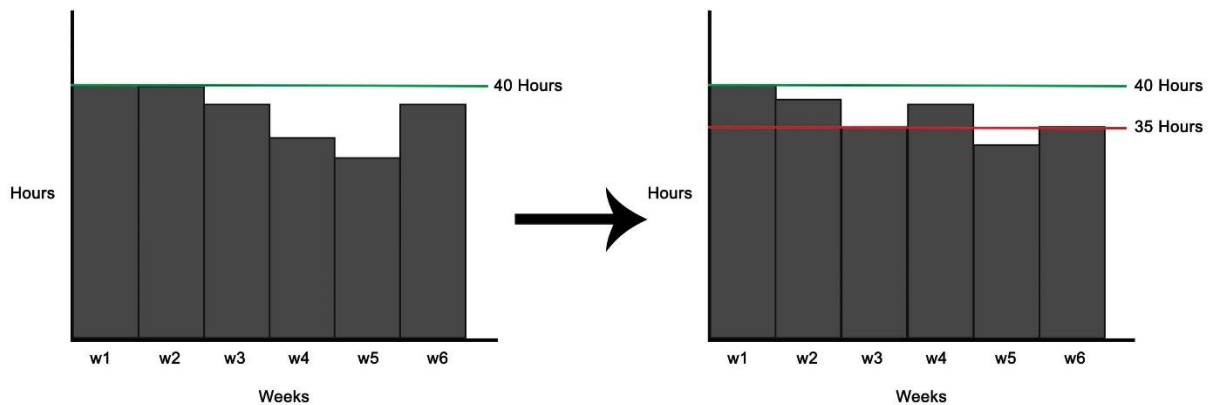
In resource leveling, we are asked to optimize the limited resources given to us. Here the schedule is not fixed.

Resource leveling answers the question of when we will be able to complete the project with the given resources.

Resource leveling is sometimes called resource constrained scheduling (RCS). If resources are not available, the project duration may change.

Resource Smoothing

We use resource smoothing when we have to optimize the resources and we cannot extend the schedule.



Since we cannot extend the schedule, the project completion date and the critical path will stay the same. Here the activities cannot be delayed more than their total and free float.

Using float in this technique will cause us to lose some flexibility from our path; however, the schedule will be optimized, efficient and cost effective.

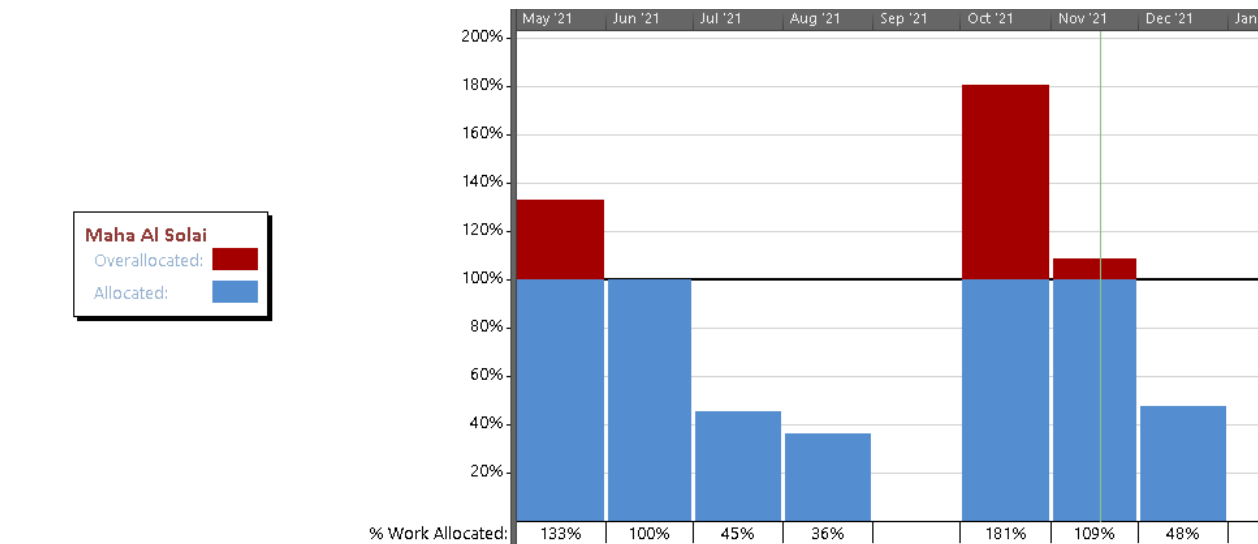
In resource smoothing, we must be careful to avoid any delay in activity as it may affect our critical path.

Time is the main constraint here. We have a fixed schedule and are asked to optimize resources.

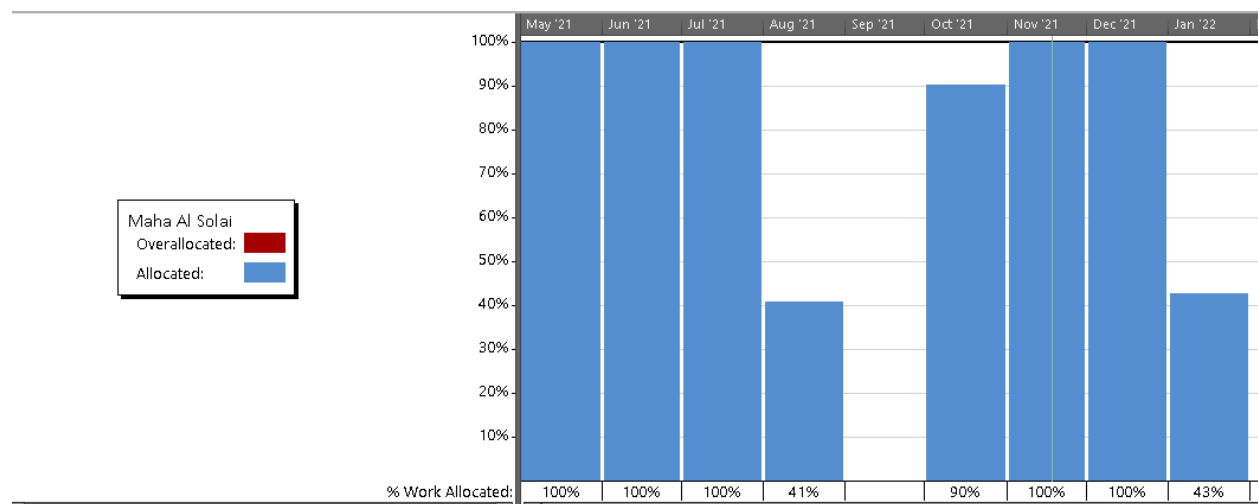
Resource smoothing is also known as time constrained scheduling (TCS). The project end date cannot be changed, and we have to optimize resources within the float.

Examples of leveling Resources for the Call Center Project

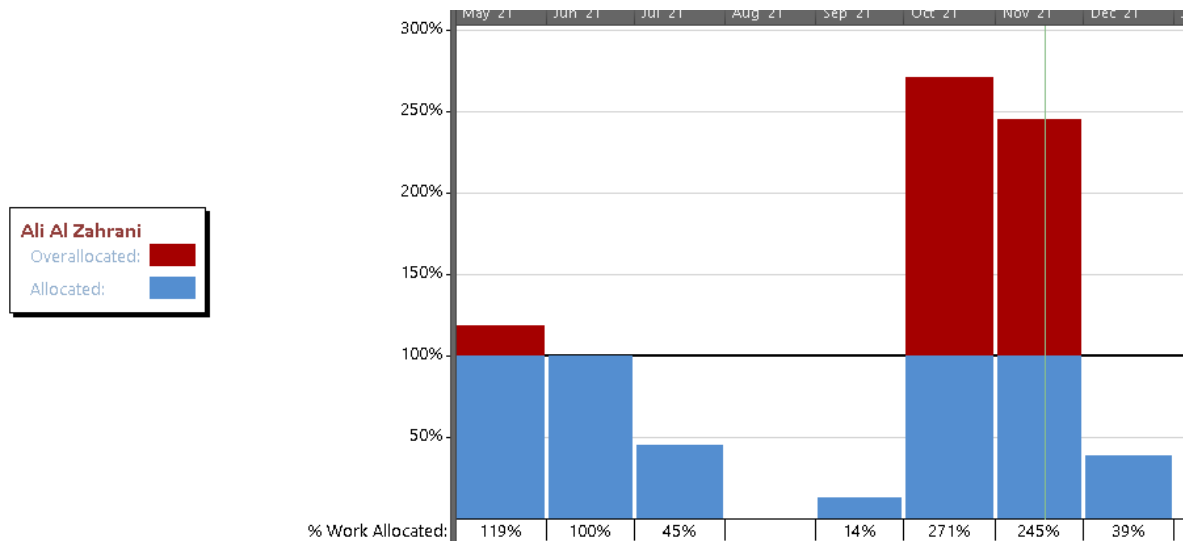
Project Manager Before Leveling



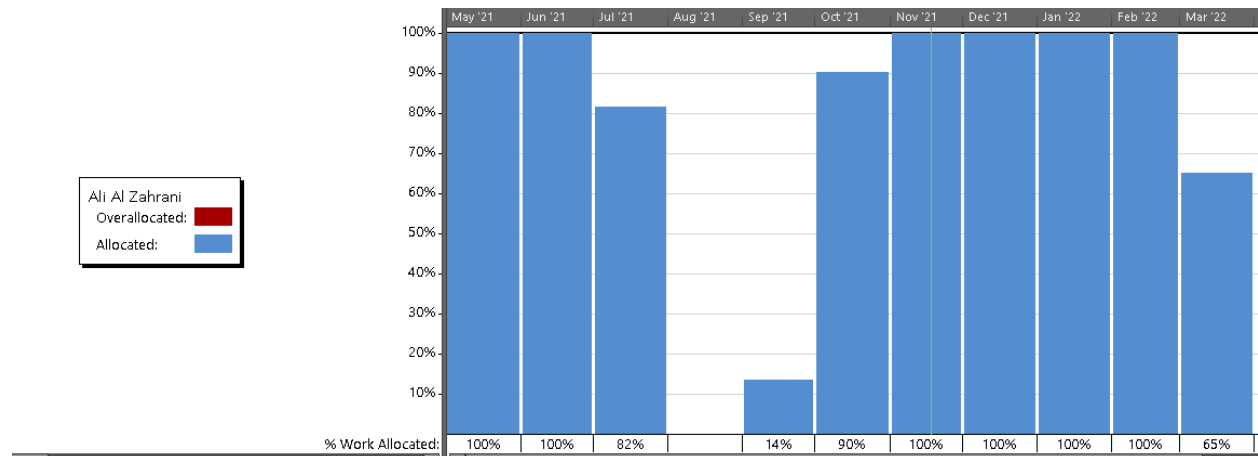
Project Manager After Leveling



Team Member Before Leveling



Team Member after Leveling as you can see the time frame has been increased to be 3 months .



If we level all the team members the period of the project will be extended from 206 days to 280 days.

Organization Chart

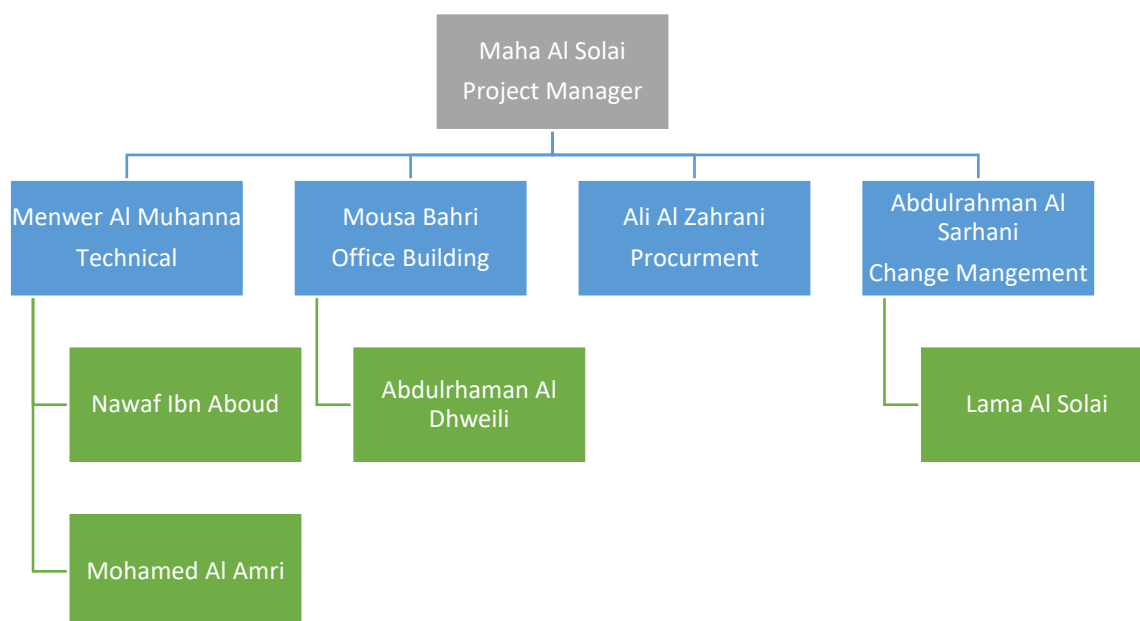


Figure 26 Project Organization Chart

Project Manager Job Description

Job Title	Project Manager
Job Summary	The Project Manager is responsible for leading and coordinating the activities of a team of assigned employees. Under the direction of his/her direct manager, the incumbent has the primary responsibilities to provide services to clients. This position may routinely assist with the planning and preparation of project estimates, proposals, and contracts.
Duties & Responsibilities	• Act as working lead with work teams(s) by assigning work activities to team members. • Recognize and act on opportunities to increase value added services that benefit customers.

	• Maintain a professional image to clients by answering inquiries and suggesting solutions to existing and/or potential problems. • Comply and enforce all compliance, health and safety, and procedures according to departmental procedures. • Manages project risk throughout the life of the project. • Develops and maintains issues logs to ensure accountability to the resolution of key issues. • Incorporates company's best practices for Project Management to ensure consistent delivery of a quality project.
Skills and Competencies	• Bachelor's degree preferred or certification in project management, or 7-10 years relevant project management experience • 5+ years managing projects involving multiple infrastructure technologies • Expertise in project management methodology • Highly motivated, process oriented, and self-directed • Good planning, time management, and scheduling skills • Excellent oral and written communication skills • Strong problem solving skills and ability to make decisions in a timely manner • Excellent interpersonal, analytical, and problem solving skills • Excellent documentation skills • Proficiency in Microsoft Word, Excel, PowerPoint, Visio, and Project

Procurement Manager Job Description

Job Title	Procurement Manager
Job Summary	The Procurement Manager is responsible to manage an efficient and effective purchasing operation for the procurement of materials, supplies, equipment, and services based upon applicable statutes and established purchasing policy and procedures. Responsible for the implementation of the purchasing systems and solicitation (RFP, RFQ, IFB, public works bid) processes, and the contract administration .
Duties & Responsibilities	• Lead and manage purchasing operations, policies, and procedures. • Manage contracting process, bids, procurement, records, renewals in existing system. • Maintain procurement records and keep them current according to state standards, review contracts and maintain an efficient central file system for contracts and renewals to assure contract compliance. • Manage insurance policies and work with insurance broker, administration of all lines of insurance bids, review with executive team, insurance certificates/liens, records/file, renewals. Develop reports as needed.
Skills and Competencies	• Bachelor's degree from a four-year college or university; preferably in business, business administration, or finance; and five (5) years related purchasing experience; or equivalent combination • Knowledge of contract law; principles of negotiations; procurement techniques; research and market analysis techniques; contract development and administration • The desire, willingness, and capability to “roll up their sleeves” and do as well as lead • Excellent communication skills including the ability to produce clear and well-organized documents

	• Ability to effectively plan, prioritize, document, and implement
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Office Building Manager Job Description

Job Title	Office Building Manager
Job Summary	The Office Building Manager is responsible for developing and executing facility solutions. Leads the operations of facility accounts by ensuring areas of responsibility meet objectives and project expectations.
Duties & Responsibilities	• Develops and implements procedures and processes for Construction, Repairs, and Maintenance of site • Developing initial project specific cost estimates and taking lead responsibility with the budgetary management of the various cost components of the project • Working closely with the contractor, architect, civil engineer, and associated consultants in developing site specific value engineering options for the work. • Maintains all facilities at constant audit readiness for internal and external audits.
Skills and Competencies	• Related bachelor's degree, preferably in Construction Management, Facility management..etc. • 3 years of directly related leadership experience with construction background general contractor experience, preferred • Strong consultative, organizational, and communication skills • Previous site management experience as well as experience maintaining a good relationship with the client and suppliers

	Hands-on experience with directing the activities of contractors and crews for mechanical, electrical, civil, and structural construction in an industrial setting
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Technical Manager Job Description

Job Title	Technical Manager
Job Summary	The Technical Project Manager is responsible for defining the technical project scope and deliverables, developing and maintaining the technical project plan, which outlines specific project tasks, milestone dates, and deliverables, and leading the project team members in accordance with company policies and procedures.
Duties & Responsibilities	- Formulate, track, and execute project plans with cross-functional teams. - Serves as liaison between technical and non-technical departments in order to ensure that all targets and requirements are met - Develop software by formulating objectives, planning project life-cycle deliverables and resource availability plans. - Review functional and design specifications to ensure full understanding of individual deliverables. - Work closely with project owners to collect business objectives and requirements to clearly define, document and scope projects and initiatives. - Leading the exploration, evaluation, and design of technical solutions to meet objectives of the software projects. - Work to overcome obstacles to success and to build collaborative relationships with other teams.

Skills and Competencies	• Minimum of a 4-year degree in a computer science, information systems or business OR equivalent project management experience. • Clear communicator (written and verbal) to ensure ability to scope, manage, and lead projects • Excellent project management skills: planning, scheduling, project communication, issue resolution, change management, and risk management • Creative solving of technical problems to ensure the ability to translate business requirements into project plans • Well versed in Agile software project management and the software development life cycle • Strong sense of initiative and a sense of urgency, demonstrated by accomplishing tasks; improving current work processes; and assisting others when necessary • Able to project a positive and professional demeanor to all internal and external contacts • Good ability to manage complex projects. Excellent time management, communications, decision making, presentation, human relations and organization skills. Able to resolve problems in a timely manner.
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Change Management Manager Job Description

Job Title	Change Management Manager
Job Summary	A change manager will play a key role in ensuring projects (change initiatives) meet objectives on time and on budget by increasing employee adoption and usage. The manager will focus on the people side of change, including changes to business processes, systems and technology, job roles and organization structures.
Duties & Responsibilities	• Apply a structured methodology and lead change management activities • Apply a change management process and tools to create a strategy to support adoption of the changes required by a project or initiative. • Support the design, development, delivery and management of communications. • Conduct impact analyses, assess change readiness and identify key stakeholders. • Provide input, document requirements and support the design and delivery of training programs. • Create actionable deliverables for the five change management levers: communications plan, sponsor roadmap, coaching plan, training plan, resistance management plan
Skills and Competencies	• Minimum of a 4-year degree in change management, information systems or business OR equivalent project management experience. • A solid understanding of how people go through a change and the change process • Experience and knowledge of change management principles, methodologies and tools • Exceptional communication skills, both written and verbal • Excellent active listening skills

	• Ability to clearly articulate messages to a variety of audiences • Ability to establish and maintain strong relationships • Ability to influence others and move toward a common vision or goal • Flexible and adaptable; able to work in ambiguous situations
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Project Team Member Job Description

Job Title	Project Team Member
Job Summary	Project team members are the individuals who actively work on one or more phases of the project. They may be in-house staff or external consultants, working on the project on a full-time or part-time basis. Project team member roles can vary according to each project.
Duties & Responsibilities	• Contributing to overall project objectives • Completing individual deliverables • Providing expertise • Working with users to establish and meet business needs • Solve project objectives • Complete tasks in areas of expertise • Deliver project responsibilities within deadlines • Communicate with project lead on roadblocks • Document progress, setbacks, and new processes
Skills and Competencies	• Overtime may be required periodically • Flexibility with work schedule may be required periodically • High School Diploma/GED

	• Minimum of 3 years of experience in a high visibility, customer-facing and customer service role • Associate's / Bachelor's Degree • Appropriate technical skills (familiarity with MS Office Suite and demonstration of ability to learn new platforms/technologies) • Intermediate to advanced knowledge of MS Office (Outlook/Word/Excel/PowerPoint) • 5+ years of customer service experience
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Project Team Allocation per activities and cost

Resource Name	Work	WBS	Cost
Maha Al Solai	1,536 hrs		\$107,520.00
Develop Business Case	80 hrs	5.1.5	\$5,600.00
Defining and engaging stakeholders	24 hrs	5.1.6	\$1,680.00
Develop Project Charter	72 hrs	5.1.7	\$5,040.00
Management Activities Completed	16 hrs	5.1.8	\$1,120.00
Conduct Feasibility Study	80 hrs	5.5.10	\$5,600.00
Create Stakeholder engagement plan	40 hrs	5.5.11	\$2,800.00
Conduct Workshops with SMEs	64 hrs	5.5.12	\$4,480.00
Appoint Project Team	48 hrs	5.5.13	\$3,360.00
Create Project Charter	80 hrs	5.5.17	\$5,600.00
Complete Business case	120 hrs	5.5.18	\$8,400.00
Issue RFP	176 hrs	5.6.6.3	\$12,320.00
Issue Contract	88 hrs	5.6.6.4	\$6,160.00
Perform Performance testing	64 hrs	5.6.8.10	\$4,480.00
Launch New Helpdesk Center	240 hrs	5.6.10.5	\$16,800.00
Monitor Implementation	240 hrs	5.6.10.6	\$16,800.00
Complete Project Documentation materials	24 hrs	5.7.4	\$1,680.00
Create Lessons Learned Documents	40 hrs	5.7.5	\$2,800.00
Sign off Project Closure Document	40 hrs	5.7.6	\$2,800.00
Ali Al Zahrani	1,672 hrs		\$75,240.00
Develop Project Charter	72 hrs	5.1.7	\$3,240.00
Management Activities Completed	16 hrs	5.1.8	\$720.00

Resource Name	Work	WBS	Cost
Conduct Feasibility Study	80 hrs	5.5.10	\$3,600.00
Create Schedule	88 hrs	5.5.14	\$3,960.00
Create Budget plan	88 hrs	5.5.15	\$3,960.00
Create Project Charter	80 hrs	5.5.17	\$3,600.00
Issue RFP	176 hrs	5.6.6.3	\$7,920.00
Issue Contract	88 hrs	5.6.6.4	\$3,960.00
Clouser of Old Help Desk Premises	24 hrs		\$1,080.00
Launch New Helpdesk Center	240 hrs	5.6.10.5	\$10,800.00
Monitor Implementation	240 hrs	5.6.10.6	\$10,800.00
Provide Post Go-Live Training Support	240 hrs	5.6.10.7	\$10,800.00
Conduct Advertising to existing client base	160 hrs	5.6.10.8	\$7,200.00
Create Lessons Learned Documents	40 hrs	5.7.5	\$1,800.00
Sign off Project Closure Document	40 hrs	5.7.6	\$1,800.00
Muhammed Al Muhana	944 hrs		\$42,480.00
Management Activities Completed	16 hrs	5.1.8	\$720.00
Create Stakeholder engagement plan	40 hrs	5.5.11	\$1,800.00
Appoint Project Team	48 hrs	5.5.13	\$2,160.00
Configure System	128 hrs	5.6.8.8	\$5,760.00
Perform System Testing	64 hrs	5.6.8.9	\$2,880.00
Perform Performance testing	64 hrs	5.6.8.10	\$2,880.00
Install System	40 hrs		\$1,800.00
Monitor Implementation	240 hrs	5.6.10.6	\$10,800.00
Provide Post Go-Live Training Support	240 hrs	5.6.10.7	\$10,800.00
Complete Project Documentation materials	24 hrs	5.7.4	\$1,080.00
Sign off Project Closure Document	40 hrs	5.7.6	\$1,800.00
Abdulrahman Al Sarhani	912 hrs		\$41,040.00
Conduct Workshops with SMEs	64 hrs	5.5.12	\$2,880.00
Create Project Charter	80 hrs	5.5.17	\$3,600.00
Perform Performance testing	64 hrs	5.6.8.10	\$2,880.00
Create New Website	80 hrs	5.6.8.13	\$3,600.00
Train support team for maintenance	80 hrs	5.6.9.5	\$3,600.00
Clouser of Old Help Desk Premises	24 hrs		\$1,080.00
Conduct Change Management	40 hrs	5.6.9.6	\$1,800.00
Launch New Helpdesk Center	240 hrs	5.6.10.5	\$10,800.00
Conduct Advertising to existing client base	160 hrs	5.6.10.8	\$7,200.00
Create Lessons Learned Documents	40 hrs	5.7.5	\$1,800.00
Sign off Project Closure Document	40 hrs	5.7.6	\$1,800.00
Nawaf Aboud	1,024 hrs		\$40,960.00

Resource Name	Work	WBS	Cost
Conduct Workshops with SMEs	64 hrs	5.5.12	\$2,560.00
Create Schedule	88 hrs	5.5.14	\$3,520.00
Create Budget plan	88 hrs	5.5.15	\$3,520.00
Issue RFP	176 hrs	5.6.6.3	\$7,040.00
Perform System Testing	64 hrs	5.6.8.9	\$2,560.00
Perform Performance testing	64 hrs	5.6.8.10	\$2,560.00
Install Hardware	40 hrs	5.6.8.11	\$1,600.00
Provide Post Go-Live Training Support	240 hrs	5.6.10.7	\$9,600.00
Conduct Advertising to existing client base	160 hrs	5.6.10.8	\$6,400.00
Create Lessons Learned Documents	40 hrs	5.7.5	\$1,600.00
Abdulrahman Al Dwillie	704 hrs		\$28,160.00
Create Schedule	88 hrs	5.5.14	\$3,520.00
Complete Business case	120 hrs	5.5.18	\$4,800.00
Design Office Layout	40 hrs	5.6.7.3	\$1,600.00
Install Office Equipment's	88 hrs	5.6.7.4	\$3,520.00
Design System Configuration	88 hrs	5.6.8.7	\$3,520.00
Create Database	80 hrs	5.6.8.14	\$3,200.00
Perform Final User Testing	80 hrs	5.6.8.12	\$3,200.00
Conduct Pre-Go Live Training sessions to power users	80 hrs	5.6.9.4	\$3,200.00
Staff Relocation	40 hrs		\$1,600.00
Mousa Bahri	1,344 hrs		\$53,760.00
Create Schedule	88 hrs	5.5.14	\$3,520.00
Create WBS plan	40 hrs	5.5.16	\$1,600.00
Create Project Charter	80 hrs	5.5.17	\$3,200.00
Complete Business case	120 hrs	5.5.18	\$4,800.00
Design Office Layout	40 hrs	5.6.7.3	\$1,600.00
Install Office Equipment's	88 hrs	5.6.7.4	\$3,520.00
Design System Configuration	88 hrs	5.6.8.7	\$3,520.00
Perform Final User Testing	80 hrs	5.6.8.12	\$3,200.00
Staff Relocation	40 hrs		\$1,600.00
Launch New Helpdesk Center	240 hrs	5.6.10.5	\$9,600.00
Provide Post Go-Live Training Support	240 hrs	5.6.10.7	\$9,600.00
Conduct Advertising to existing client base	160 hrs	5.6.10.8	\$6,400.00
Create Lessons Learned Documents	40 hrs	5.7.5	\$1,600.00
Mohammed Amri	1,064 hrs		\$42,560.00
Perform System Testing	64 hrs	5.6.8.9	\$2,560.00
Install Hardware	40 hrs	5.6.8.11	\$1,600.00
Install System	40 hrs		\$1,600.00

Resource Name	Work	WBS	Cost
Launch New Helpdesk Center	240 hrs	5.6.10.5	\$9,600.00
Monitor Implementation	240 hrs	5.6.10.6	\$9,600.00
Provide Post Go-Live Training Support	240 hrs	5.6.10.7	\$9,600.00
Conduct Advertising to existing client base	160 hrs	5.6.10.8	\$6,400.00
Create Lessons Learned Documents	40 hrs	5.7.5	\$1,600.00
Lama Al Solai	1,160 hrs		\$46,400.00
Create New Website	80 hrs	5.6.8.13	\$3,200.00
Conduct Pre-Go Live Training sessions to power users	80 hrs	5.6.9.4	\$3,200.00
Train support team for maintenance	80 hrs	5.6.9.5	\$3,200.00
Conduct Change Management	40 hrs	5.6.9.6	\$1,600.00
Launch New Helpdesk Center	240 hrs	5.6.10.5	\$9,600.00
Monitor Implementation	240 hrs	5.6.10.6	\$9,600.00
Provide Post Go-Live Training Support	240 hrs	5.6.10.7	\$9,600.00
Conduct Advertising to existing client base	160 hrs	5.6.10.8	\$6,400.00

Table 41 Resource Allocation

Perform Procurement Management

Procurement Management is the process of managing the supplier's delivery of a scope of work within a project. By monitoring and controlling the scope of work provided by suppliers, you can:

- Ensure that the procurement items (i.e., products, services and results) within the scope of work are delivered by suppliers in accordance with the terms of the Supplier Contract.
- Identify and resolve supplier-related issues quickly and easily.
- Get maximum performance out of your supplier relationships.

Procurement Management is comprised of a set of processes, roles, and documents for managing suppliers within the project, each of which is described as follows.



Figure 27 Procurement Management Set

Procurement Management Process

Once a supplier has been contracted to supply resources to a project, you need a clearly defined process for the day-to-day receipt and acceptance of procurement items from that supplier. A tightly defined Procurement Management Process will help you manage not only the procurement of these items, but also the overall performance of the supplier against the Supplier Contract.

The Procurement Management Process involves three key steps:

1. Issue a Purchase Order. A Purchase Order is completed to request a procurement item from a supplier who has been contracted to the project. Purchase Orders are

approved by the Project Manager and issued to the Supplier within the timeframes identified in the Supplier Contract.

2. **Complete Purchase Order.** The supplier produces and/or provides the items listed in the Purchase Order, and the project team reviews and accepts those items when received.

3. **Manage Supplier Contract.** While a Purchase Order is being issued and completed, the overall performance of the Supplier must be assessed to determine whether it is meeting the responsibilities defined in the Supplier Contract.

The following diagram depicts the processes to fulfill the procurement the project needs while managing the supplier's performance.

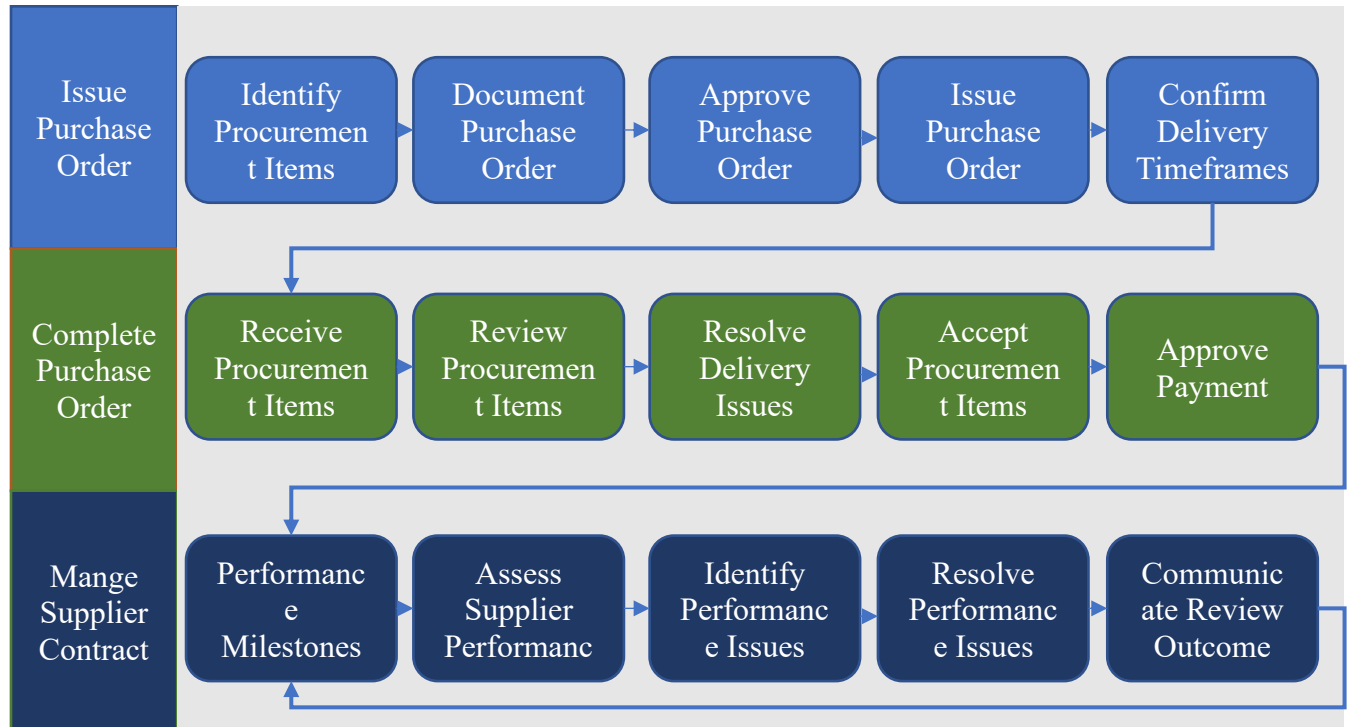


Figure 28 Procurement Management Process

Procurement Management Executing Process

The first step to be taken during the Procurement Management Process is to issue a Purchase Order for the items required from the supplier. A detailed description of this process follows:

Issue Purchase Order

The first step in procuring items from a supplier is to issue a Purchase Order:

<i>Identify Procurement Items</i>	The Procurement Manager reviews the Procurement Plan to identify the procurement items that need to be sourced from external suppliers. A <i>Procurement Item</i> is defined as any item that a supplier is contractually obliged to provide to the project, such as: ■ Products (e.g., goods, materials, equipment, tools, machinery) ■ Services (e.g., labor, technical and consulting services) ■ Results (e.g., a more efficient process, a more highly skilled team and a restructured organization)
<i>Document Purchase Order</i>	Once the procurement items have been identified, the Procurement Manager completes a Purchase Order for the supply of these items to the project. The Purchase Order describes the order, delivery, and payment details, as well as the terms and conditions for supply. It is important to complete the Purchase Order well before the required delivery date to give the supplier the maximum notice possible, increasing the likelihood of on-time delivery.
<i>Approve Purchase Order</i>	The Purchase Order is forwarded to the Project Manager for approval. Prior to giving his or her approval, the Project Manager considers the following criteria: ■ Are the stated procurement items listed in the Procurement Plan? ■ Are the stated procurement items listed in the Supplier Contract? ■ Are the procurement items defined in sufficient detail for the supplier? ■ Is there sufficient time for the supplier to produce the procurement items? ■ Does the project team have a stated contractual relationship with the supplier?

<i>Issue Purchase Order</i>	If the Purchase Order meets all the above criteria, it is approved and issued to the supplier for fulfillment. If it does not meet these criteria or there is insufficient information provided within the Purchase Order, then the Project Manager returns it to the Procurement Manager for alteration and re-submission.
<i>Confirm Delivery Timeframes</i>	After the Purchase Order has been issued to and received by the Supplier, the Supplier presents an ETA (Estimated Time of Arrival), providing the likely timeframe to deliver the procurement items to the project.

Complete Purchase Order

The next step in the Procurement Management Process is the completion (i.e., fulfillment) of the Purchase Order by the Supplier:

<i>Receive Procurement Items</i>	After receiving the Purchase Order and issuing an ETA, the supplier completes the order by producing the procurement items for the project. The items are delivered to / provided at the designated project location and confirmed by the Procurement Manager as being received.
<i>Review Procurement Items</i>	The Procurement Manager assesses the procurement items to determine whether they meet the description in the Purchase Order. The assessment may involve a physical inspection (in the case of a product) or a series of reviews (in the case of a service) to ensure that the procured deliverables were on time, within cost and to the level of quality required.
<i>Resolve Delivery Issues</i>	If the review concludes that one or many of the requirements stated in the Purchase Order have not been satisfactorily met, then the Procurement Manager raises an issue. The impact and severity of the issue is rated, and the Project Manager helps lead the resolution of the issue with the Supplier.
<i>Accept Procurement Items</i>	When any delivery issues are resolved, the Project Manager accepts the procurement items on behalf of the project team and notifies the

	supplier of their acceptance.
Approve Payment	The supplier issues an invoice to the project team for payment. The supplier invoice is then paid and the terms of the contract for those procurement items are complete.

Manage Supplier Contract

During the Purchase Order issue and fulfillment process, the project team manages the overall performance of the supplier, to ensure that it is completing its full responsibilities as defined within the Supplier Contract. The following steps are performed:

Performance Milestones Reached	The first step in managing a supplier's performance is to identify the contract milestones that trigger a formal performance review. Each time a milestone is reached, a formal review is initiated to assess the supplier's overall level of performance against the terms of the contract.
Assess Supplier Performance	The Procurement Manager reviews the supplier's performance by assessing the procurement items received to date to determine whether they are within the scope of work stated in the Supplier Contract. He or she also forms an opinion as to whether the Supplier has operated within the terms and conditions of the contract.
Identify Performance Issues	If there are any deviations from the contract they are identified during the review and the impact of each deviation is measured. The Procurement Manager raises a formal issue with the Project Manager for resolution.
Resolve Performance Issues	The Project Manager and Procurement Manager raise the issue with the supplier (in accordance with the terms of the contract) and attempt to negotiate a resolution with the supplier. The resolution may entail withholding payment until the required procurement items are supplied, raising a dispute under the terms of the contract, or cancellation of the supplier contract.

<i>Communicate Review Outcome</i>	The relevant project stakeholders are informed of the outcome of the review and any impact on the project.
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Procurement Roles

The Procurement Management Process involves the following roles and responsibilities:

Role	Responsibilities
Procurement Manager	The Procurement Manager is responsible for: ■ Managing the day-to-day procurement of items for the project ■ Identifying the procurement items listed in the Procurement Plan ■ Completing Purchase Orders and obtaining the Project Manager's approval ■ Issuing Purchase Orders to suppliers and obtaining ETA dates ■ Accepting procurement items from suppliers, on behalf of the project ■ Reviewing supplier performance at the milestones stated in the Supplier Contract ■ Identifying deviations from contract and raising supplier issues ■ Assisting the Project Manager with resolving supplier issues ■ Requesting the approval of supplier payments
Project Manager	The Project Manager is responsible for: ■ Approving Purchase Orders completed by the Procurement Manager ■ Approving each supplier payments requested by the Procurement Manager ■ Assisting the Procurement Manager with the resolution of supplier issues

Table 42 Procurement Roles

Process Timeframes

The following table lists the key steps in the Procurement Management Process and their regular timeframes for completion:

Role	Process	Procedure	Timeframe
Procurement Manager	Identify Procurement Items	Identify items to be sourced from suppliers, as listed in the Procurement Plan	Within the timeframes listed in the Procurement Plan
	Document Purchase Order	Describe the order, delivery, and payment details as well as the terms and conditions, in a Purchase Order	Within the timeframes listed in the Procurement Plan
Project Manager	Approve Purchase Order	Approve the Purchase Order raised by the Procurement Manager	Within five working days of the completion of the Purchase Order
Procurement Manager	Issue Purchase Order	Issue the purchase order to the supplier for fulfillment	Within two working days of the approval of the Purchase Order
	Confirm Delivery Timeframes	Receive supplier's ETA (Estimated Time of Arrival) for the procurement items	Within five working days of the issue of the Purchase Order
	Receive Procurement Items	Receive the procurement items from the supplier and confirm receipt	Within the timeframes listed in the Procurement Plan
	Review Procurement Items	Assess the Procurement Items to ensure that they meet the Purchase Order requirements	Within 10 working days of the delivery of each procurement item
	Resolve Delivery Issues	Raise and resolve delivery issues with the supplier	Within five working days of the identification of a supplier delivery issue
	Accept Procurement Items	Assuming no delivery issues have been identified, accept the procurement items provided by the supplier on behalf of the project team	Within two working days of the completion of the review

Project Manager	Approve Payment	Approve the supplier invoice and issue payment	Within the terms of the approved Supplier Contract
Procurement Manager	Identify Performance Milestone	Identify the contract milestones that trigger formal performance reviews	Within the terms of the approved Supplier Contract
	Assess Supplier Performance	Review the scope of work delivered by the supplier to determine whether it meets the requirements specified in the Supplier Contract	Within 10 days of the initiation of the review
	Identify Performance Issues	Identify any deviations in the scope of work provided by the supplier vs. the requirements specified in the Supplier Contract	Within 10 days of the initiation of the review
	Resolve Performance Issues	Work with the supplier to resolve any delivery issues	Immediately upon the identification of a delivery issue
	Communicate Review Outcome	Communicate the outcome of the Supplier performance review to appropriate project stakeholders.	Within five working days of the completion of the performance review

Table 43 Procurement Process Timeframe

Procurement Management Documents

Two key documents are required to undertake this Procurement Management Process successfully: the Purchase Order Form and the Procurement Register. A description and template for each document is provided in the following sections:

Purchase Order Form

The purpose of the Purchase Order Form is to place an order for the purchase of items for the project. This form is to be completed by the Procurement Manager and forwarded to the Project Manager for formal approval.

The following Purchase Order Form will be used within the project.

PURCHASE DETAILS

Purchase Order #:
Purchase Order Date:
Date Required by:

DELIVERY DETAILS

From: <i>Project Name: Service Call Center</i> <i>Project Address: Riyadh</i> <i>Project Contact Name:</i> <i>Project Contact Phone #:</i>	To: <i>Supplier Name:</i> <i>Supplier Address:</i> <i>Supplier Contact Name:</i> <i>Supplier Contact Phone #:</i>
Deliver To: <i>Contact Name:</i> <i>Contact Address:</i>	Bill To: <i>Contact Name:</i> <i>Contact Address:</i>

ORDER DETAILS

Item	Description	Quantity	Unit Price	Total Price
		Subtotal:		
		Other:		
		Total:		

PAYMENT DETAILS

Payment Method: *Method of payment offered (Bank Transfer)*

TERMS AND CONDITIONS

List any terms and conditions applicable to this Purchase Order. For example:

- The supplier must validate this purchase order within 24 hours of receipt by confirming that it can deliver the items within stated price and delivery timescales.
- Every item on the Purchase Order must be delivered in full before the Project Manager will release payment to the supplier.
- This Purchase Order is being issued in accordance with the Supplier Contract.

Figure 29 Purchase Order Form

Procurement Register

The purpose of the Procurement Register is to record the current status of all procurement items ordered and delivered within the project, thereby enabling the Project Manager to monitor and control the overall delivery of the scope of work from each supplier contracted to the project.

The following register will be used by the project team to monitor and control the status of each procurement item required by the project.

Procurement Item							Supplier			Order				Payment		
PO#	Item Title	Item Description	Quantity	Unit Price	Total Price	Required By Date	Company	Contact Name	Contact Ph. No.	PO Status	PO Date	Delivery Status	Delivery Date	Payment Method	Payment Status	Payment Date

Figure 30 Procurement Register Form

The following table describes the columns included in the Procurement Register above.

Item	Description
PO #	Unique Identifier assigned to this Purchase Order
Item Title	Title of each item being procured within the scope of work as referenced in the Procurement Plan
Item Description	Description of each item being procured within the scope of work as referenced in the Procurement Plan
Quantity	Number of items to be purchased with this purchase order
Unit Price	Unit Price for each item
Total Price	Total Price for these items
Required By Date	Date when the supplier must deliver the items to the project
Company	Name of supplier that will provide these items
Contact Name	Name of supplier's contact person
Contact Phone	Phone number of supplier's contact person
PO Status	Status of the Purchase Order: ■ U = "Unsubmitted" (i.e. documented but not yet submitted for approval) ■ S = "Submitted" (i.e. submitted to Project Manager for approval) ■ A = "Approved" (i.e. approved by Project Manager) ■ I = "Issued" (i.e. issued to supplier for delivery)
PO Date	Date the Purchase Order status was created
Delivery Status	Current delivery status of the items listed in the Purchase Order: ■ N = "Not Received" (i.e. awaiting arrival of items from supplier) ■ R = "Received" (i.e. items received from supplier) ■ V = "Reviewed" (i.e. items from supplier reviewed)

	■ A = "Accepted" (i.e. items from supplier accepted)
Delivery Date	Date the Delivery Status was set
Payment Method	Method of payment (e.g. credit card, check, direct debit, cash)
Payment Status	Status of the Supplier Payment: ■ I = "Invoice Received" (i.e. invoice received from supplier) ■ R = "Requested" (i.e. payment approval requested from Project Manager) ■ A = "Approved" (i.e. payment approved by Project Manager) ■ P = "Paid" (i.e. supplier paid)
Payment Date	Date the Payment Status was determined

Table 44 Procurement Register Glossary

Supplier Selection and Scoring Methods

According to Gonzalez, Gasco, and Llopis (2009), reasons for outsourcing include: focusing on strategic issues, increasing flexibility, improve quality, getting rid of time consuming routine tasks, facilitating access to technology, saving staffing costs, and saving technology costs.

With numerous vital tasks being outsourced, the selection of who they are sourced to become a crucial process in the company's future success. The process of a supplier selection is based on tangible and intangible criteria. Ng (2010) outlines that despite a common criteria being used among various suppliers, the process is tailored to the reason the purchase being made and the nature of the transaction. With the growing reasoning for outsourcing, and the risk associated with the transaction, the processes and methods used to perform these tasks are ever changing. Since the chosen supplier becomes an integrated part of the company's supply chain, the overall goal of the process is to select a supplier who will add value to the supply chain

Supplier Selection During Request for Proposal

What is RFP scoring?

Request for proposal (RFP) scoring, sometimes called proposal scoring, is the process of assigning numerical values to the RFP responses provided in a vendor's proposal. As part of the proposal evaluation process, RFP scoring provides a data-based approach to support fair and unbiased vendor selection.

RFP scoring is particularly important in strategic sourcing which often involves questions that are open ended. Consequently, the resulting answers tend to be long and complex. Scoring provides a way to grade responses and compare prospective vendors at a glance. In addition, it allows evaluators to quickly identify a potential supplier's strengths and weaknesses. Ultimately, successful RFP scoring and evaluation marks the conclusion of the RFP process.

Successful RFP scoring starts long before you issue an RFP or receive a single proposal. Indeed, much of the supplier selection process is determined during the requirements discovery phase of the RFP process. Ideally, your established requirements create the foundation for your RFP scorecard.

So, as we gather all our key stakeholders asking them to list the requirements that are most important. Our stakeholder group should include colleagues from different areas of the business. For example, it may be wise to engage the impacted department, customer services, sales, operations and IT.

RFP category criteria:

1. Adherence to RFP Instructions
2. Company Information
3. Project Understanding
4. Requirements
5. Product Viability & History
6. Terms & Conditions
7. Vendor Demonstration
8. Fee Summary

Criteria Detailed Check List

1. Adherence to RFP Instructions	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Timeliness	5	5	5	Arrived by deadline receives all points
Completeness	5	3	2	Completed sections in same order as RFP receives all points
Overall Quality & Level of Professionalism	2	4	3	Technically compliant and attractive receives all points
Overall Response	5	4	3	Overall quality very high receives all points
Average Score	4	4	3	
2. Company Information	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Financial Viability	5	5	5	Proof of financial viability receives all points (i.e., Dun & Bradstreet Report)

Organizational Structure	1	5	4	Explained structure and org chart receives all points
Experience with Similar Companies	2	4	3	Proof of similar sized and focused companies experience receives all points
Service Department	5	4	3	Service department 24/7 with appropriate language capability receives all points
References	2	5	3	Positive references from four provided (checked) receives all points
Partnerships	5	4	3	Proven external partnerships receives all points
Average Score	3	5	4	
3. Project Understanding	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Overall Comprehension of Project Objectives	5	5	5	Written section shows comprehension
Understanding of the Business Requirements	5	3	2	Written section shows comprehension
Understanding of the Business Vision	2	4	3	Written section shows comprehension
Average Score	4	4	3	
4. Requirements	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Completeness of Vendor Response	5	5	5	Response if fully technically compliant
Vendor Ability to Meet Requirements	1	5	4	Vendor details ability to meet requirements
Average Score	3	5	5	
5. Product Viability & History	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Technology Is Sustainable	5	5	5	Track record of product history
Product Roadmap	5	3	2	Detailed roadmap for future product development
Product Development Life-Cycle	2	4	3	Life-cycle is realistic for product updates
Criteria Checklist				Scores available from 1-5. Basis for scoring must be listed with specific examples.
New Release Process	5	4	3	New release process is comprehensive
Average Score	4	4	3	

6. Terms & Conditions	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Detailed Buyer Duties	5	5	5	Buyer duties favorable
Terms & Conditions	1	5	4	Terms & conditions favorable
Purchase Agreement Details	2	4	3	Outlines purchase details
Average Score	3	5	4	
7. Vendor Software Demonstration	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Solution Is Integrated	5	5	5	Fully integrated solution receives full points
Aligns with Company Objectives	5	3	2	
Third-Party Products Shown	2	4	3	
Ease of Use	5	4	3	
System Performance	1	2	3	
Flow & Simplicity	5	2	3	
System Ability To Handle Requirements	2	1	4	
Flexibility, Tailorability, Extensibility	3	3	3	
Ability to Answer Questions	4	4	2	
Application Robustness	3	5	2	
Average Score	4	3	3	
8. Fee Summary	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
License Fees	5	5	5	
Maintenance Fees	1	5	4	
Purchase Timeline	2	4	3	
Licensing Period	5	4	3	
Other Fees	2	5	3	
Average Score	3	5	4	

Table 45 Supplier Selection Criteria

*Prior to use, update criteria as needed to be consistent with RFP. Update basis for scoring to have qualitative scoring details.

*Change weights based on company requirements. Total score should = 1.00

Criteria Scores Summary

CRITERIA SCORES	WEIGHT	VENDOR 1 WEIGHTED SCORE	VENDOR 2 WEIGHTED SCORE	VENDOR 3 WEIGHTED SCORE
1. Adherence to RFP Instructions	0.05	0.21	0.20	0.16
2. Company Information	0.05	0.67	0.90	0.70
3. Project Understanding	0.20	1.20	1.20	1.00
4. Requirements	0.30	0.15	0.25	0.23
5. Product Viability & History	0.05	0.21	0.20	0.16
6. Terms & Conditions	0.05	0.67	1.17	1.00
7. Vendor Demonstration	0.25	0.18	0.17	0.15
8. Fee Summary	0.05	3.00	4.60	3.60
Total Score	1.00	6.28	8.68	7.00

Table 46 Criteria Score Card

Based on the scores Vendor 2 have achieved the highest score and been selected to execute the project.

This completes the description of the processes, roles and documents required to implement Procurement Management within this project. By following each of the steps listed, we will be able to carefully monitor and control the delivery of all procurement items within the SpeedTelecom Call Center Project and ensure that the suppliers perform all of their responsibilities and duties as listed in their Supplier Contract.

Agenda- invitation and virtual record of a virtual meeting

1. Meeting Agenda & invitation

From: Lama Al Solai <Lama.S@domain.com>

Sent: Thursday, November 18, 2021 7:01 PM

To: Menewer Al Muhana, Abdulrahman Al Sarhani, Ali Zahrani, maha Al Solai, Mohammed Al Amri, Nawaf Ibn Aboud, Mousa Bahri, Abdulrahman Al Dhweilie

Subject: Project risk assessment and review meeting

Dear Team

It's a pleasure to invite you for a project risk assessment and review meeting, meeting agenda as stated below.

Risk Assessment meeting

11/21/2021 9:00 AM | *Meeting room 7* [Location]

Meeting called by	Maha Al Solai	Attendees: lama Al Solai, Menewer Al Muhana, Abdulrahman Al Sarhani, Ali Zahrani, maha Al Solai, Mohammed Al Amri, Nawaf Ibn Aboud, Mousa Bahri, Abdulrahman Al Dhweilie Please read : Risk Register and RAID report
Type of meeting	Risk assessment meeting	
Facilitator	Lama Al Solai	
Note taker	Menewer Al Muhana	
Timekeeper	Nawaf Ibn Aboud	

Agenda Items

Topic	Presenter	Time allotted
☐ Discuss risk register items updates	Lama Al Solai	15 min
☐ Discuss Risks no: 1,2,4 (high severity) on the list and make sure triggers are clear, and review the mitigation action with the risk owner	Lama Al Solai	30 min
☐ Brainstorm on the new probable threats and opportunities and add to the list	All	30 min
☐ Assess the new risks and assign a risk owner and mitigation for those risks	Lama Al Solai	30 min

Regards,
Lama Al Solai

Project manager

2. Meeting minutes:

Risk Assessment meeting

11/21/2021 9:00 AM | *Meeting room 7* [Location]

Meeting called by	Lama Al Solai	Attendees: lama Al Solai, Menewer Al
Type of meeting	Risk assessment meeting	Muhana, Abdulrahman Al Sarhani, Ali
Facilitator	Lama Al Solai	Zahrani, maha Al Solai, Mohammed Al
Note taker	Menewer Al Muhana	Amri, Nawaf Ibn Aboud, Mousa Bahri,
Timekeeper	Nawaf Ibn Aboud	Abdulrahman Al Dhweilie

Meeting minutes

✓	Discuss risk register items updates		
	Conclusion: update some risk rating (probability and impact) after the latest progress		
	Action	Responsible	Deadline
	Update the risk register and send to the team	Lama Al Solai	11-21-2021
✓	Discuss Risks no: 1,2,4 (high severity) on the list and make sure triggers are clear, and review the mitigation action with the risk owner		
	Conclusion: update the risk register and closely follow up with the IT and procurement Depts to report daily with the equipment installation and implementation status and if there any issue arise to be reported on spot		
	Action	Responsible	Deadline
	Request daily reporting form IT and Procurement dept	Lama Al Solai	11-21-2021
	Send the latest equipment installation and implementation status and meet with the technical team to fix the logistic issues		
✓	Brainstorm on the new probable threats and opportunities and add to the list		
	Conclusion: Add the new risk (Covid 19 6 th wave lockdown) to the risk register and consult the IT dept for the remote work capability in terms of connectivity via VPN and other setups		
	Action	Responsible	Deadline
	Check VPN server readiness	Menewer Al Muhana	11-23-2021

✓	Assess the new risks and assign a risk owner and mitigation for those risks Conclusion: Update the new risks on the register and also update the trigger, risk owner and follow up in the next meeting Action Update the risk register and send to the team	Responsible Lama Al Solai	Deadline 11-21-2021
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Project Performance Measurement

Performance measurement is the practice of analyzing project progress and understanding what it means within the context of the overall project plan and goals.

Performance measurement enables project professionals to compare task or project progress against trends and benchmarks, such as past performance and expected progress.

The practice of performance variance analysis allows them to pinpoint which areas of the project are behind or ahead and where their focus is needed.

The most common way to conduct performance measurement is through Earned Value Management (EVM). EVM compares cost and schedule progress against project baselines, budgets, and expected future outcomes.

STANDARD	PROCESS	PARAMETERS	TECHNIQUES
PMI-PMBOK	Comparison of the work plan with executing project	Scope (Deliverables)	Earned Value Management
		Schedule (dates achieved))	KPI
		Cost (% work completed)	
IPMA-ICB	Comparison of progress with planning	Objectives	Earned Value Management
		Plans	
		Contracts	
APM-APMBOK	Comparison of actual performance versus plan	Actual work on financial data	Earned Value Management
ISO-10006	Situation analysis of progress with the plan of management	Progress	Earned Value Management
		Contracts	KPI
PRINCE	Comparison of performance with planned goals	Time, cost, scope, risks	Earned Value Management
		Benefits	
		Products to be delivered, work not completed	

Table 47 Performance approach in project management standards.

There are a number of formulas involved in EVM analysis. These include:

- **Earned Value (EV):** % complete (from progress measurement) x BAC (budget at completion) or the sum of PV of all completed tasks to date.

- **Planned Value (PV):** The authorized budget assigned to scheduled work (usually at the control account level).
- **Cost Variance (CV):** This is $EV - AC$. AC stands for actual cost.
- **Schedule Variance (SV):** Calculated as $EV - PV$.
- **Schedule Performance Index (SPI):** EV/PV .
- **Cost Performance Index (CPI):** EV/AC .
- **Variance at Completion (VAC):** BAC (Budget at Completion) – EAC (Estimate at completion).
- **Estimate to Completion (ETC):** Calculated as $EAC - AC$ or by creating a new bottom-up estimate of all work remaining.
- **Estimate at Completion (EAC):** This value can be calculated many ways, including:
 - AC (actual costs to date) + Bottom-up ETC (new estimates for costs remaining).
 - $BAC / \text{Cumulative CPI}$, to forecast based on efficiency so far.
 - $AC + (BAC - EV)$, to calculate actual costs so far plus the remaining value of work to be completed.
 - $AC + (BAC - EV / (\text{Cumulative CPI} * \text{Cumulative SPI}))$, to find actual to date plus the remaining budget adjusted for project efficiency rates so far.
 - Using simulation software to predict when a project will complete and how much it will cost based on performance so far and predictions about whether performance may improve, drop, or stay on-trend.

- **To Complete Performance Index (TCPI):** TCPI is used to calculate the cost performance that must be achieved to hit the cost target. Using EAC the formula is $(BAC - EV) / (EAC - AC)$.

Process of Performance measurement:

The following five processes are required for successful progress and performance measurement:

1. **Progress measurement planning:** This process involves determining the level and type of progress measurement. It generally includes answering the following questions:
 1. Will the project team measure progress at the task level, cost control level, or higher?
 2. Which method will be used to assess progress on each aspect of the project? (I.e., cost-based, hours-based, etc.)
 3. How often will progress be gathered? (weekly, bi-weekly, or monthly)
 4. Who will be responsible for reporting it? (team members, supervisors, department heads)
 5. What tools will they need? (Will it require actual-hours reports, do they need to visually inspect product completion, will they input progress directly into the software or send it to someone else)
2. **Performance measurement planning:** During this process, project managers will plan out how performance measurement is inputted, analyzed, and reported on. It will often also include guidelines for action. Key aspects of this process are:
 1. Determining how frequently performance will be analyzed and reported on
 2. Deciding metrics to be analyzed and tracked (for example, measuring against benchmarks, only tracking CPI & SPI, etc.)
 3. Setting guidelines around the level of analysis and reporting (CPI & SPI reported weekly, EAC updated monthly, etc.)

4. Documenting criteria around acceptable and ideal performance metrics
(If performance drops below a certain threshold, will it trigger an action?
I.e., if cumulative SPI dips below 0.75, will overtime be assigned to help catch up?)
3. Executing progress and performance measurement: In the execution process, the people in charge of tracking and reporting progress (as per the plan) will follow the steps to assess and input the data. The person or people in charge of analysis will ensure all data is provided, run analytics, and report on performance in accordance with the set plan.
4. Monitoring progress and performance and implementing control actions: In this process, project managers and other stakeholders will review performance metrics and determine whether action is required. They may be required to manage expectations around expected completion dates, request more funding or resources, or simply provide assurances that everything is on track. If there are rewards tied to achieving targets, they would be provided as part of this process.
5. Closure of progress and performance measurement activities: At the end of the project, after the final progress and performance results are reported, the project data may be analyzed for lessons learned. Then, as the project is closed, the data will be stored so that teams can use it in the future to improve estimates and forecasts for similar projects.

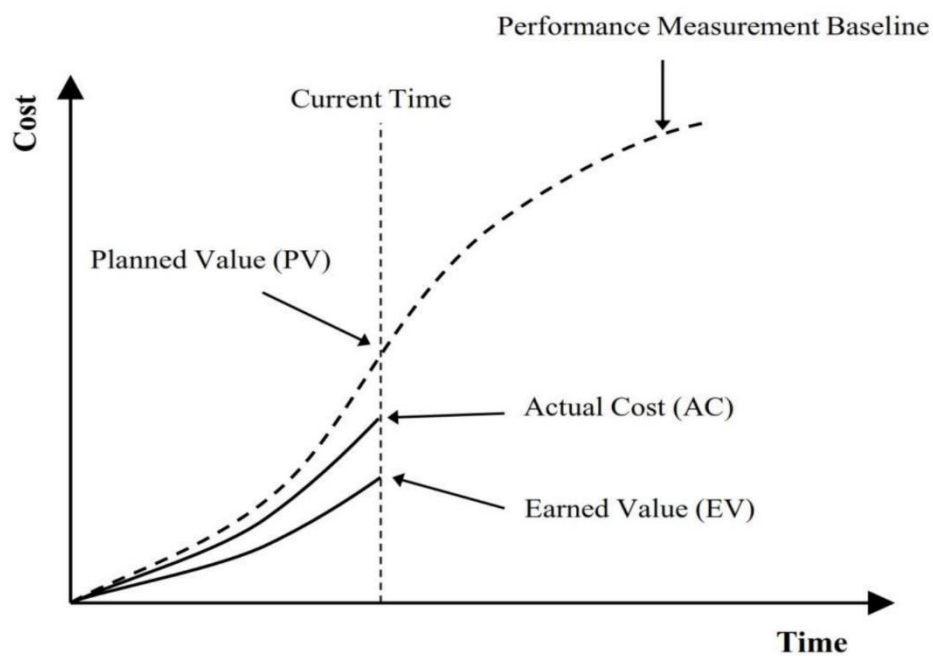


Figure 31 Performance Measurement Baseline

Performance Measurement for Call Center Project

Key Tracking Metrics for Progress & Performance Measurement for Call Center Project.

Metrics	Formula	Description
Cost variance (CV)	$EV - AC$. AC stands for actual cost	If the CV is negative, it indicates an overspend.
Schedule variance (SV)	Calculated as $EV - PV$	If the SV is negative, it indicates the task or project is behind schedule.
Cost Performance Index (CPI)	EV/AC	If CPI is less than 1.00, it means more costs have been spent to date than expected to attain the current level of progress.
Schedule Performance Index (SPI)	EV/PV	If SPI is less than 1.00, it means progress is behind schedule compared to where it is expected to be at this time.
Variance at Completion (VAC)	$BAC \text{ (Budget at Completion)} - EAC \text{ (Estimate at completion)}$.	If VAC is negative, it implies the project will end up being over budget upon completion unless something changes.

Table 48 Performance Measurement for Call Center Project

Change Management Process

1 Introduction

Change Management includes the processes, roles and documents needed to monitor and control changes within the project. We will implement Change Management for this project by putting in place:

- A Change Management Process for documenting, scheduling and implementing project change requests
- Change Management Roles to ensure that team members have a clear understanding of their responsibilities for identifying and documenting requests for change within the project
- Change Management Documents such as a Change Form and Change Register

The following sections describe in further detail we will implement how Change Management on this project.

2 Change Management Process

2.1 Process Overview

The first step taken towards implementing Change Management practices on this project is the formalization of a Change Management Process. This is the process of identifying, documenting, approving and implementing changes within our project. By formally managing each request for change, we will be able to:

- Reduce the impact of changes on the project
- Identify new issues and risks as a result of changes raised
- Ensure that changes do not negatively affect the project's ability to achieve its objectives
- Control the cost of changes within the project

The Change Management Process is made up of the following steps:

- Identify Need for Change
- Complete Change Request Form
- Investigate Change Request

- Request Approval of Change Request
- Approve Change Request
- Schedule and Implement Change
- Review and Close Change

The following diagram depicts the steps required to identify, document, approve and implement changes in this project.

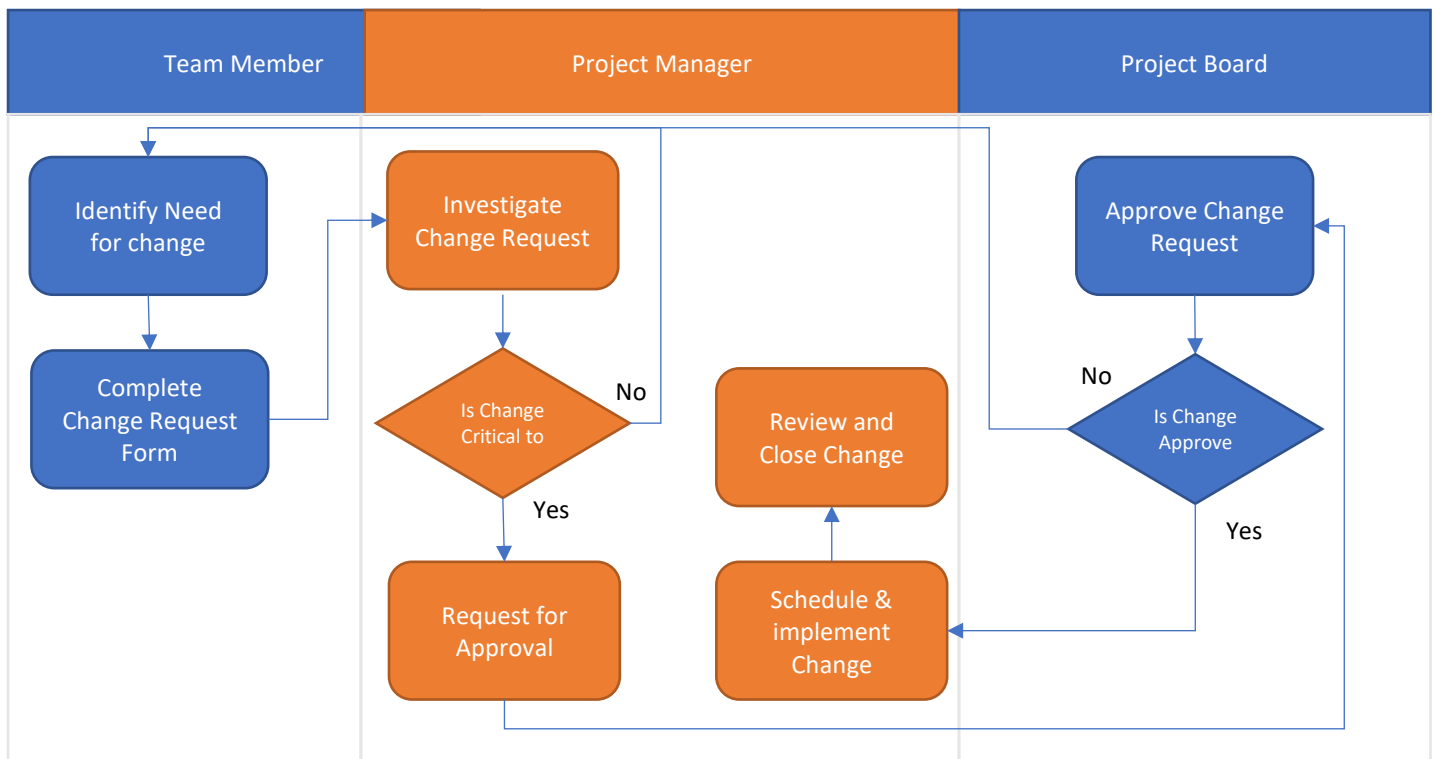


Figure 32 Change Request Process

2.2 Identify Change

The first step in the change process is to identify the need for change. The change need is then documented using a Change Request Form and submitted to the Project Manager for approval. A more detailed description of this process follows:

Identify Need for Change

At some point in this project, we may experience a need to make a formal change. Whether the change is derived from the Board's intention to change the requirements or priorities of the project, or the Project Manager's recognition of the need to change the project scope, these actions constitute a "need for change" to the project.

This "need for change" must be formally recognized in order to ensure that the change can be controlled through the change process. To ensure that the project is not diverted from producing its deliverables on time, to cost and to specification, the following guidelines will be used to validate each change for approval:

- Only change requests made by project directors, management or staff will be considered
- Changes must be critical to the project achieving its objectives
- The benefits of each change must measurably outweigh the costs
- The change should not have any high priority issues or risks associated with it

Only when the above guidelines are met is the change considered valid and will be considered for approval.

Complete Change Request Form

Once a team member has formally identified the change and determined through the above guidelines to be valid, will they then document the change using a Change Request Form (CRF). This form allows the team member to thoroughly describe of the change requested, as well as its drivers, benefits, costs and impact on the project.

Once complete, the CRF is forwarded to the Project Manager for approval.

2.3 Review Change

In the second step in the change process the Project Manager reviews the CRF. If the change is considered critical to the project success, the Project Manager will forward it to the Project Board for final approval. A detailed description of this process follows:

Investigate Change Request

The Project Manager will investigate the change raised by the team member, to understand why it is required and determine its impact on the project if it is or is not

implemented. The Project Manager will then decide whether it is critical to the successful delivery of the project. Changes that are not critical to project delivery will be avoided whenever possible to prevent "scope creep" (i.e. the gradual increase in scope throughout the Project Lifecycle).

Request Approval of Change Request

If the change is deemed critical to success, the Project Manager either approves the request or seeks approval for the CRF raised. In some cases, the Project Manager has the direct authority to approve minor change requests; however, in most cases the Project Manager will need to seek CRF approval from the Project Board.

2.4 Approve Change

The third step in the change process is the approval of the CRF by the Project Board. By reviewing the change details in the CRF, the Project Board determines whether or not the change should be implemented. Based on the level of risk, impact, benefits and cost to the project, the Board may decide to decline, delay or approve the change request. If the change is approved, then the Board will ask the Project Manager to schedule the change for implementation.

2.5 Implement Change

The fourth step in the change process involves scheduling and implementing the change request, as well as a final review upon completion to determine whether the change has had the desired effect on the project. A more detailed description of this process follows:

Schedule and Implement Change

Following the approval of the Change Request (by either the Project Manager or the Project Board), the actions required to implement and communicate the change are scheduled. These actions should be scheduled for a date and time which have minimal impact on the project.

Review and Close Change

After implementation of the approved change, the Project Manager will review the project to determine whether the change actions have had the desired effect. If the

desired effect was not achieved, then the Project Board will be informed of the result and further change actions will be formulated and implemented until the desired result is achieved.

Throughout the Change Management Process, a Change Register will be kept up-to-date to allow the Project Manager to view the status of the change and its impact on the project.

2.6 Process Timeframes

The following table lists the key steps undertaken within the Change Management Process and their regular timeframes for completion:

Role	Process	Procedure	Timeframe
Team Member	Identify Need for Change	Investigate the drivers, benefits, costs and impact of the change	Immediately after identification of the need for change
	Complete Change Request Form	Fill in the standard project Change Request Form (CRF)	Immediately after identification of the need for change
Project Manager	Investigate Change Request	Review the CRF to determine whether it the change is critical to the success of the project	Within five working days of receiving the CRF
	Request Approval of Change	Forward the CRF to the Project Board for approval	Within five working days of receiving the CRF
Project Board	Approve Change Request	Review the CRF and approve the set of actions required to implement the change	At the next Project Board meeting
Project Manager	Schedule and Implement Change	Schedule and implement the actions needed to effect the change	Within five working days after the Project Board meeting
	Review and Close Change	Determine the impact of change actions and whether they have had the desired effect	Within five working days after implementation of the change

Table 49 Change Request Time Frame

Note: The timeframes described above relate to non-urgent changes identified within the Project Lifecycle. If an *urgent* change is identified, then the change request, approval and implementation actions will need to occur more quickly.

3 Change Management Roles

To ensure that the Change Management Process is undertaken as specified within this document, the following roles will be allocated.

3.1 Team Member

Team Members are responsible for:

- Recognizing the need for a change to the project
- Completing a CRF that fully describes the change, its drivers, benefits, costs and impact on the project
- Forwarding the CRF to the Project Manager for review

3.2 Project Manager

The Project Manager is responsible for:

- Investigating each CRF to determine whether the change is critical to project success
- Requesting approval of each CRF from the Project Board
- Scheduling and implementing approved changes
- Reviewing all implemented changes to ensure that they have had the desired effect on the project

3.3 Project Board

The Project Board is responsible for:

- Reviewing each CRF to determine the risks, issues, costs and benefits associated with the change

- Deciding on the approval of the change or identifying alternative actions if necessary
- Identifying the specific actions needed to implement each CRF

4 Change Management Documents

Two key documents are required to successfully perform the Change Management Process: the Change Form and the Change Register. The following sections provide a description and template for each of these documents:

4.1 Change Form

The purpose of the Change Form is to allow team members to document a request for a change to the project. All staff on the project requesting a change will fill out this form in its entirety, to enable the Project Manager to understand the nature of the change as well as its drivers, benefits, costs and impact.

The following form will be used to document requests for a change to the project.

Table 50 Change Request Form

PROJECT DETAILS

Project Name: SpeedTelecom Call Center
Project Manager: Lama Al Solai

CHANGE DETAILS

Change Number: *Unique identifier for the change*
Change Requester: *Name of person requesting the change*
Change Request Date: *Date of completion of this form*
Change Urgency: *Level of urgency for undertaking the change*

Change Description:
Provide a complete description of the requested change

Change Benefits:
Describe the benefits associated with implementing this change

Change Drivers:
List any project, business, market or environmental factors that necessitate a specific time limit for this change

Change Costs:
Describe the costs associated with implementing this change

IMPACT DETAILS

Project Impact:
Describe the impact on the project if this change is / is not implemented

APPROVAL DETAILS

Supporting Documentation:
Reference any supporting documentation used to substantiate this change

Submitted by		Approved by	
Name:		Name:	
Signature:		Signature:	
Date: ____/____/____		Date: ____/____/____	

Any documentation to support this change should be attached to this document.

PLEASE FORWARD THIS FORM TO THE PROJECT MANAGER FOR APPROVAL

4.2 Change Register

The purpose of the Change Register is to record the current status of all change requests for the project, thereby enabling the Project Manager to monitor and control the effects of the change throughout the Project Lifecycle.

The project team will use the following register to monitor and record the status of changes within the project.

Summary				Change Description			Approval			Implementation		
ID	Date Raised	Raised By	Received By	Description of Change	Description of Impact	Impact Rating	Change Approver	Approval Status	Approval Date	Implementation Resource	Implementation Status	Implementation Date

Table 51 Change Register

The following table describes the columns included within the Change Register above.

Column	Description
ID	Unique identifier for each change
Date Raised	Date the Change Request Form was submitted for approval
Raised By	Name of the team member who raised the change request
Received By	Name of the person who received the Change Request (typically the Project Manager)
Description of Change	Full description of the proposed change
Description of Impact	Summary of the impact on the project (e.g. scope, deliverables, timescales, resources)
Impact Rating	Assessment of the level of the change's impact on the project: ■ L = "Low" (i.e. low level of impact on the project) ■ M = "Medium" (i.e. medium level of impact on the project) ■ H = "High" (i.e. high level of impact on the project)
Change Approver	Name of the person or group responsible for approving the change (typically the Project Manager or Project Board)
Approval Status	Current status of the change approval: ■ A = "Submitted" (i.e. the change has been submitted for approval) ■ P = "Pending" (i.e. further information has been requested by the Approver) ■ C = "Approved" (i.e. the change has been approved)
Approval Date	Date when the Approval Status was determined
Implementation Resource	Name of the person or group responsible for implementing the change (typically the Project Manager)
Implementation Status	Status of the change implementation: ■ I = "Implementation Scheduled" ■ C = "Implementation Completed" ■ R = "Implementation Reviewed" ■ S = "Implementation Successful"
Implementation Date	Date when the Implementation Status was determined

Project Risk Management

1 Introduction

Risk Management includes all the processes, roles and documents needed to monitor and control risks. We will implement Risk Management for this project by putting in place:

- A Risk Management Process to identify, document, review and mitigate risks to the project
- Risk Management Roles to ensure that team members have a clear understanding of their responsibilities for identifying and resolving risks to the project
- Risk Management Documents such as a Risk Form and Risk Register

The following sections describe in further detail how we will implement Risk Management on this project.

2 Risk Management Process

2.1 Process Overview

We are defining a risk as any event that is likely to adversely affect the project's ability to achieve its defined objectives. Although we have already created a Risk Plan earlier in the project, new risks have appeared of late. To ensure that these new risks are managed appropriately, we now need to implement a clear and effective Risk Management Process. This process will enable us to identify, document, review and mitigate these and any other new risks during the Project Lifecycle. By managing risks formally, we can:

- Create more accurate budgets and forecasts
- Be more confident of on-time completion of deliverables
- Increase our chances of overall project success
-

The Risk Management Process consists of the following steps:

- Identify Project risk
- Complete Risk Form
- Investigate Project Risk
- Escalate Risk to Project Board

- Review Risk
- Assign Risk Actions
- Implement Risk Actions

The following diagram depicts the steps required to identify, document, review and mitigate risks within this project.

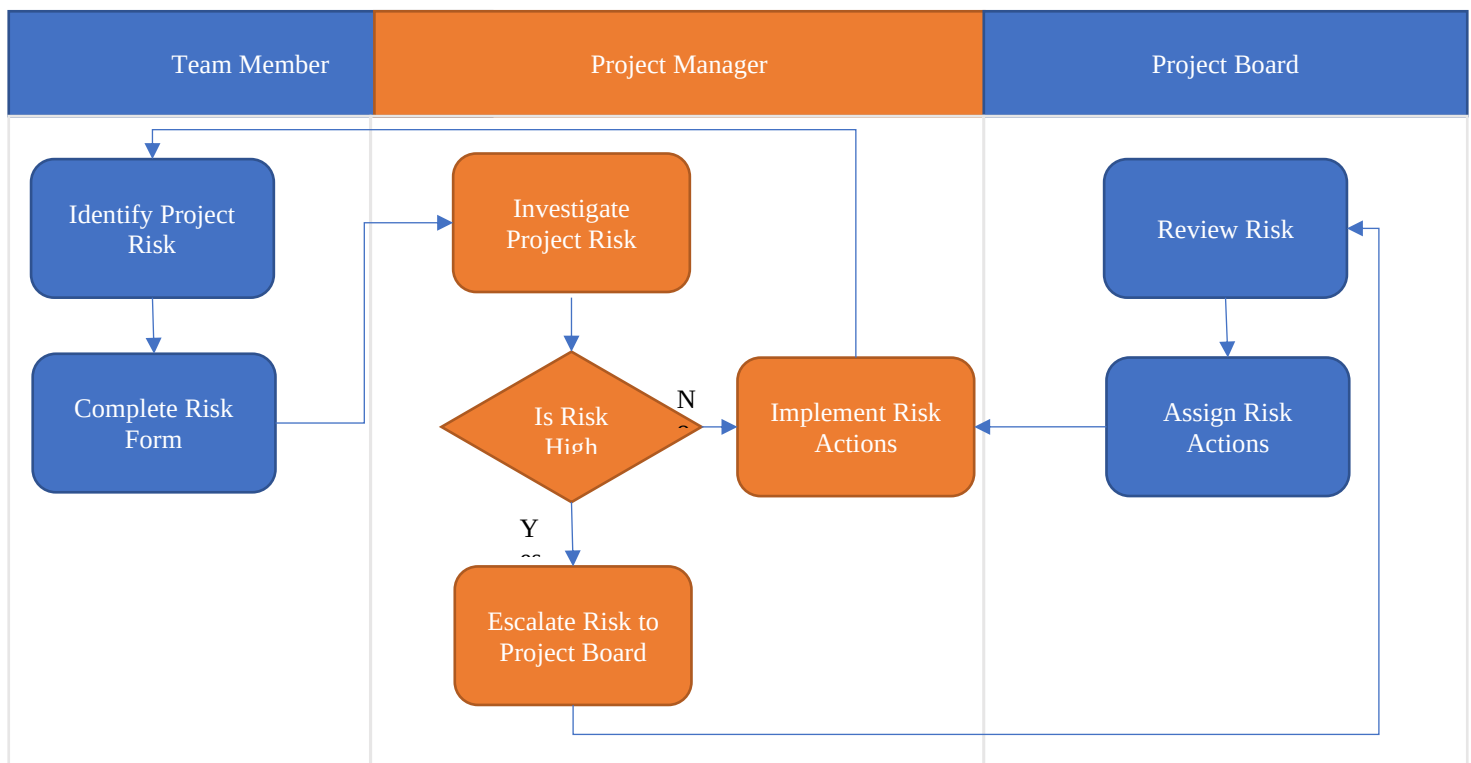


Figure 33 Risk Process

2.2 Identify Risk

The first step in the Risk Management Process is the identification of new project risks and the completion of Risk Forms. A more detailed description of this process follows:

Identify Project Risk

As previously described, new risks are likely to appear throughout the Project

Lifecycle. These risks may be caused by such events as:

- A change in customer requirements
- A sudden shortage of skilled resource
- Unexpected project expenses
- A lack of supplier performance
- A failure in project equipment
- A shortage of project materials

Whatever situation arises, we must ensure that risks to project delivery are clearly identified and raised to management before they occur.

Complete Risk Form

After any new project risk has been identified, the team member who identified it (or his or her Team Leader) will formally raise the risk to management by completing a Risk Form. The follow guidelines apply to the completion of risk forms within this project:

- Any member of the project team who identifies a risk can complete a Risk Form
- The Risk Form should provide a complete description of the risk identified
- The likelihood of the risk should be rated as Low, Medium or High
- The impact of the risk on the project, if it occurs, should also be rated as Low, Medium or High
- A suite of actions to prevent the risk from occurring should be recommended
- Contingency actions should also be listed to minimize the impact on the project, should the risk actually occur
- The completed Risk Form should be sent immediately to the Project Manager for review

2.3 Review Risk

The Project Manager will then review the risk to determine its validity and level of priority. The Project Manager will take action to resolve all *Low* and *Medium* priority issues, however *High* priority risks will be escalated to the Project Board for action. A detailed description of this process follows:

Investigate Project Risk

Upon receipt of the Risk Form from the team member, the Project Manager will review the form to determine its validity. If the Project Manager agrees that this is a valid risk and that action should be taken to resolve it, then he will determine the overall *priority* of the risk.

The risk priority is based on the *likelihood* that the risk will occur and its impact on the project should it actually occur. Risks that are highly likely to occur and will have a serious impact on the project are deemed *High Priority* and forwarded to the Project Board for action.

When determining the risk priority, the Project Manager considers whether the risk is likely to affect the:

- Deliverables listed in the Project Charter
- Quality Targets specified in the Quality Plan
- Timeframes specified in the Project Plan
- Resources specified in the Resource Plan
- Budget specified in the Financial Plan

Implement Risk Actions

If the Project Manager believes this is not a high priority risk but still requires immediate action, he (Jean Rossini) will implement a suite of actions to avoid, transfer or mitigate the risk as soon as possible. The actions are implemented and their results reviewed to ensure that they have resolved the risk accordingly. If the risk was not properly addressed by these actions, the Project Manager may decide to:

- Take no further action
- Initiate further actions to address the risk
- Raise the risk to the Project Board for its attention

Escalate Risk to Project Board

All High Priority risks, as well as any other risks that the Project Manager has been unable to satisfactorily address, should be forwarded to the Project Board for consideration. The Project Manager will decide to either present the risks at the next regular monthly meeting, or call a Special Board Meeting specifically to discuss the risks. If urgent attention is needed and the Project Board is not available within the required timeframe, then the Project Manager may present the risk to the Project Sponsor (head of the Project Board) to request approval for suitable action.

2.4 Assign Risk Actions

In the final step, the Project Board reviews the risks and takes a suite of actions designed to avoid, transfer or mitigate each. A detailed description of this process follows:

Review Risk

The Project Board will review all risks raised by the Project Manager and agree on their likelihood and potential impact. Following the review of each risk and its impact on the project, the board might decide to:

- Ignore the risk, if Board members believe it is not likely to occur within the Project Lifecycle
- Validate the risk and request further information before a decision is made
- Implement a series of actions required to avoid, transfer or mitigate the risk

Assign Risk Actions

Once the Board has approved a suite of actions, the Project Manager is responsible for assigning those actions to members of the project team and for overseeing implementation.

Throughout the Risk Management Process, a Risk Register will need to be kept up-to-date to provide the Project Manager with an overview of the current status of all identified project risks.

2.5 Process Timeframes

The following table lists all the key steps in the Risk Management Process and their

regular timeframes for completion:

Role	Process	Procedure	Timeframe
Team Member	Identify Project Risk	Identify a new risk and quantify its likelihood and potential impact on the project	Any time during the Project Lifecycle
	Complete Risk Form	Fill in the standard project Risk Form	Immediately after identification of the Risk
Project Manager	Investigate Project Risk	Review the Risk to determine its overall Priority	Within five working days of receiving the Risk Form
	Implement Risk Actions	Take actions to resolve Low and Medium priority risks	Within five working days of receiving the Risk Form
	Escalate Risk to Project Board	Escalate High priority risks to the Project Board	Within five working days of receiving the Risk Form
Project Board	Review Risk	Review risks and approve a set of actions to avoid, transfer or mitigate them	At the next Project Board meeting
	Assign Risk Actions	Assign risk actions to Project Manager	At the next Project Board meeting

Table 52 Risk Process Time Frame

Note: The timeframes described above relate to non-critical Risks identified during the Project Lifecycle. If a critical project risk (i.e. a High priority risk for which immediate resolution is critical to the success of the project) is identified, then the Project Manager can either call a Special Project Board Meeting or raise the risk immediately to the Project Sponsor (the Chairman of the Project Board) for action.

3 Risk Management Roles

To ensure that the Risk Management Process is performed as specified within this document, the following roles will be allocated.

3.1 Team Member

Within this Risk Management Process, project team members will responsible for:

- Identifying risks to the project
- Completing a Risk Form for each identified risk
- Completing all risk actions assigned by the Project Manager

3.2 Project Manager

In terms of risk management, the Project Manager is responsible for:

- Reviewing all risks to determine their priority
- Implementing risk actions for low / medium priority risks
- Raising all high priority risks to the Project Board
- Implementing risk actions approved by the Project Board
- Reviewing risks after risk actions have been taken

3.3 Project Board

The Project Board is responsible for:

- Reviewing high priority risks raised by the Project Manager
- Identifying the actions required to avoid, transfer or mitigate high priority risks
- Supporting the Project Manager in the implementation of risk actions

4 Risk Management Documents

Two key documents are required to successfully undertake this Risk Management Process: the Risk Form and the Risk Register. The following sections provide a description and template for each document:

4.1 Risk Form

The purpose of the Risk Form is to allow team members to formally raise any new risk within the project. Any staff member on the project will complete the following form to enable the Project Manager to understand the nature of the risk being raised, the likelihood of the risk, and its potential impact on the project.

Risk Form

PROJECT DETAILS	
Project Name: Project Manager:	
RISK DETAILS	
Risk ID: <i>Unique identifier assigned to this risk</i> Raised By: <i>Name of person who is raising this risk</i> Date Raised: <i>Date of completion of this form</i>	
Risk Description: <i>Describe briefly the identified risk and its likely impact on the project (e.g. scope, resources, deliverables, timescales and/or budgets) should it occur.</i>	
Risk Likelihood: <i>Describe and rate the likelihood that the risk will eventuate (i.e. Low, Medium or High).</i>	Risk Impact: <i>Describe and rate the impact on the project if the risk eventuates (i.e. Low, Medium or High).</i>
RISK MITIGATION	
Recommended Preventative Actions: <i>Describe briefly the actions to be taken to prevent the risk from eventuating.</i>	
Recommended Contingent Actions: <i>Describe briefly the actions to be taken if the risk eventuates, to minimize its impact on the project.</i>	
RISK MITIGATION	
Supporting Documentation: <i>Reference any supporting documentation used to substantiate this risk.</i>	
Signature: _____	Date: ____/____/____
PLEASE FORWARD THIS FORM TO THE PROJECT MANAGER FOR ACTION	

Figure 34 Risk Form

4.2 Risk Register

The purpose of the Risk Register is to record the current status of all risks on this project, enabling the Project Manager to monitor and control the likelihood and impact of risks on project delivery.

The project team will use the following register to monitor and control the status of each risk identified on this project.

Risk Register

Date Raised				Risk Description		Risk Priority			Preventative Actions			Contingency Actions		
ID	Date Raised	Raised By	Received By	Description of Risk	Description of Impact	Likelihood Rating	Impact Rating	Priority Rating	Preventative Actions	Owner	Date	Contingency Actions	Owner	Date

Table 53 Risk Register

The following table describes the columns included within the Risk Register above.

Item	Description
ID	Unique Identifier for each risk raised
Date Raised	Date the Risk Form was submitted
Raised By	Name of the team member who identified the risk and completed the Risk Form
Received By	Name of the person who received the Risk Form for action (the Project Manager)
Description of Risk	Full description of the risk identified

Description of Impact	Description of the risk's potential impact on the project (e.g. on project scope, deliverables, timescales and resources)
Likelihood Rating	Rating of the likelihood that the risk will occur: - VL = "Very Low" - L = "Low" - M = "Medium" - H = "High" - VH = "Very High"
Impact Rating	Rating of the risk's level of impact on the project if it occurs: - VL = "Very Low" - L = "Low" - M = "Medium" - H = "High" - VH = "Very High"
Priority Rating	Rating of the overall risk "priority" based on the above likelihood and impact ratings: - VL = "Very Low" - L = "Low" - M = "Medium" - H = "High" - VH = "Very High"
Preventative Actions	Actions to be taken to prevent the risk from occurring
Owner	Project Team Member responsible for taking each action listed (i.e. the "owner" of each Preventative Action)
Date	Date each preventative action was taken
Contingency Actions	Actions to be taken to minimize each risk's impact on the project should it occur

Owner	Project Team Member responsible for taking each action listed (i.e. the "owner" of each Contingency Action)
Date	Date each contingency action was undertaken if applicable

5 Project Qualitative Risk Analysis

The following key risks have been identified under each risk category:

Risk Category	Risk Description	Risk ID	Likelihood Score	Impact Score	Priority Score	Priority Rating
Political	Changes in Project Board membership during the Project Lifecycle lead to a change in scope or priorities	1.1	20	40	30	Low
Return on Investment	Customer numbers do not meet forecasts, thereby lengthening the time required for a return on investment	2.1	80	40	60	Medium
	Unforeseen project costs (such as an increase in loan interest rates, an increase in the price of raw materials) lead to budget over-runs	2.2	60	80	70	High
Delivery Timeframe	The overall delivery timeframe is insufficient to produce all of the project deliverables	3.1	60	20	40	Low
	The required project delivery dates are brought forward	3.2	60	80	70	High
	There is insufficient time for the project team to make a complete assessment of the existing Call Center infrastructure	3.3	60	80	70	High
Logistical	The large numbers of required staff, suppliers, deliverables, equipment and materials place this project's overall delivery at risk	4.1	80	80	80	High

Risk Category	Risk Description	Risk ID	Likelihood Score	Impact Score	Priority Score	Priority Rating
	There is an insufficient number of skilled resources in the market to undertake this project	4.2	20	40	30	Low
	Suppliers contracted to this project do not produce the required deliverables on time, within budget or to the level of specification required	4.3	40	80	60	Medium
Planning	Infrastructure data is outdated and inaccurate, making it difficult to know which assets require upgrading	5.1	80	100	90	Very High
	Planning consents may be denied or may be subject to conditions that increase project costs	5.2	60	40	50	Medium
Execution	Unanticipated site conditions lead to increased construction costs	6.1	80	40	60	Medium

Table 54 Call Center Project Risk

5.2 Risk Quantification

Each of these risks identified has been quantified below as to its likelihood and its impact on the project should it occur.

5.2.1 Likelihood

The following table describes the scoring mechanism used to identify the likelihood of each project risk stated above:

Title	Score	Description
Very Low	20	The risk is highly unlikely and will be recorded but not monitored.
Low	40	The risk is unlikely but will be monitored throughout the project.
Medium	60	The risk is likely as it is clear that the risk may occur.
High	80	The risk is very likely , based on the circumstances of the project.

Very High	100	The risk is highly likely , as the circumstances that will cause this risk to occur are also very likely to occur.
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Table 55 Project Risk Likelihood Table

5.2.2 Impact

The following table describes the scoring mechanism used to identify the impact on the project, should the risk actually eventuate.

Title	Score	Description
Very Low	20	The risk will have an insignificant impact on the project.
Low	40	The risk will have a minor impact on the project (<5% deviation in scope, scheduled end-date or project budget).
Medium	60	The risk will have a measurable impact on the project (5%-10% deviation in scope, scheduled end-date or project budget).
High	80	The risk will have a significant impact on the project (10%-25% deviation in scope, scheduled end-date or project budget).
Very High	100	The risk will have a major impact on the project (25%+ deviation in scope, scheduled end-date or project budget).

Table 56 Project Risk Impact Table

5.2.3 Priority

During the Risk Workshops undertaken, each risk identified was assigned a Likelihood and Impact Score using the scoring mechanisms listed above. The overall Priority score was calculated as the average of the Likelihood and Impact scores (i.e. Priority = [Likelihood + Impact] / 2). As seen in the table of the risks.

5.2.4 Risk Plan

To ensure the success of SpeedTelecom Call Center Project, we will need to implement a suite of actions to avoid, transfer and/or mitigate the risks we've identified. This section lists such actions and provides a schedule for their completion.

5.3.5 Schedule

The following table itemizes the preventative actions to be taken to reduce the likelihood of each risk occurring, as well as the contingent actions to be taken should the risk actually occur. The person assigned to complete each action is specified, as well as the dates upon which the action needs to be completed.

Risk Rating	Risk ID	Preventative Actions	Action Resource	Contingent Actions	Action Resource
Low	1.1	Approve a mandate to maintain the project scope	Project Board	Enforce the approved Project Board mandate when required	Project Sponsor
Medium	2.1	Assign a marketing budget to promote the new features of the call center for increased customer numbers	Project Manager	Create a contingency marketing plan to promote the new features of the call center in the event of low customer numbers	Project Manager
High	2.2	Fix the price of raw materials, interest rates and other costs up front	Project Procurement Manager	Obtain contingency funding of 5% above contract prices	Project Sponsor
Low	3.1	Request an extension in the overall delivery timetable	Project Manager	Allocate 5% of elapsed time in the project schedule as contingency	Project Manager
High	3.2	Request that the Project Board approve a high level schedule of deliverables and delivery dates, before project execution begins	Project Manager	Prioritize the deliverables, so that key items can be produced within the required dates	Project Sponsor
High	3.3	Allocate additional time to assess the existing infrastructure	Project Manager	Utilize the 5% of elapsed time in the project schedule, allocated as contingency	Project Manager
High	4.1	Recruit a senior team of leaders for the project, experienced at managing such quantities of resources	Project Manager & HR Manager	Sign <i>backup contracts</i> for additional managerial resource from overseas should it be needed	Project Manager & HR Manager
Low	4.2	Recruit additional skilled resource from overseas markets to assist with the completion of this project	HR Manager	Sign <i>backup contracts</i> for the supply of skilled resource from overseas should it be needed	HR Manager
Medium	4.3	Negotiate formal contracts with all project suppliers, to include penalties for non-delivery	Project Procurement Manager	Sign <i>backup contracts</i> with alternative suppliers, in case a preferred supplier fails to perform	Project Procurement Manager
Very High	5.1	Allocate time in the project schedule for the review of all Call Center assets	Project Office Building Manager	Obtain asset information from Call Centers or Facility Management Companies	Project Office Building Manager

Medium	5.2	Fully research the planning consent process to identify requirements and initiate the consent process early	Project Manager	Allocate additional funds in the budget to gain consent for site works	Project Manager
Medium	6.1	Conduct geological surveys well ahead of construction	Project office Building Manager	Identify alternative design in case the planned design is not suitable	Project office Building Manager

Table 57 Risk Schedule

6 Risk response strategies

Here are some of the risk response strategies we must consider when managing a project risk:

Avoid

This technique usually involves **developing an alternative strategy** that is more likely to succeed, but is usually linked to a higher cost. We can choose to assign the IT equipment or infrastructure readiness to a company with higher track record of diverting such projects instead of local company with no known history in this exact upgrades even if it will cost much more budget

Transfer

It means passing the ownership and liability to a third party, or outsourcing some of the project risky activities to other company rather than using in-house teams In this example, we can use hiring agency to attract experts to join the team.

Mitigate

By reducing the probability and/or severity of the risk below acceptable levels, it means invest in order to reduce risk on the project A project manager can hire an expert to review technical plans or cost estimates on a project in order to increase confidence in that plan. Assigning high-risk management activities to highly qualified project personnel is another risk reduction method.

Accept

Recognizing residual risks and devising responses to control and monitor them This technique involves accepting the risk and collaborating with others in order to share responsibility for risky activities.

This completes the description of the processes, roles and documents required to implement Risk Management within the SpeedTelecom Project.

By following each of the steps listed, we will be able to carefully monitor and control the overall project risk, thereby increasing our chances of delivering our project successfully.

Stakeholder Engagement Assessment Matrix

The Stakeholder Engagement Assessment Matrix is a simple yet powerful project management technique to document desired and monitor actual engagement levels of stakeholders. It helps identify potential gaps in the involvement of stakeholders.

What Is Stakeholder Engagement?

Every project has stakeholders. Yet the number and involvement of stakeholders vary greatly among the different types of projects and industries.

A small, lean software development project, for instance, might only have a few stakeholders. On the other hand, a mega-project, e.g. construction of infrastructure, can involve a huge number of individual stakeholders and groups of stakeholders.

Irrespective of the size of the project, managing a project's relationship with stakeholders is crucial to ensure project success. This is especially true for influential and interested stakeholders.

How to Create a Stakeholder Engagement Matrix?

A stakeholder engagement assessment matrix consists of several rows, each of them representing one stakeholder (or a group of homogenous stakeholders, if applicable). The columns indicate the level of engagement. The Project Management Body of Knowledge (PMBOK®, 6th ed., ch.13.2.2.5) suggests the following classification:

unaware, resistant, neutral, supportive, leading.

Following the PMI's taxonomy, the current level of engagement is documented with a "C". The desired level is represented with a "D".

A "C" can basically occur in any of these columns. However, a "D" is typically not applicable for the "unaware" or "resistant" columns for obvious reasons (do you really wish to have resistant stakeholders in your project?).

stakeholder	Unaware	Resistant	Neutral	Supportive	Leading
Stakeholder 1	C			D	
Stakeholder 2			C	D	
Stakeholder 3				D C	
...					
Stakeholder n					

Table 58 Stakeholder Engagement Matrix Example

Some project managers prefer adding a column representing the interest and power of stakeholders (i.e. their importance for the project). This can be useful for evaluating the importance and priority of gaps identified.

Example of a Stakeholder Engagement Matrix incl. Power / Interest Assessment

Stakeholder	Power / Interest	Unaware	Resistant	Neutral	Supportive	Leading
Stakeholder 1	high / low	C			D	
Stakeholder 2	high / medium			C	D	
Stakeholder 3	medium / high				D C	
...						
Stakeholder n	high / high				C	D

How to Determine the Desired Stakeholder Engagement Level?

The Project Management Institute's framework lists the

- needs,
- expectations,
- interests, and
- potential impact

of stakeholders as the criteria to determine their desired engagement level.

This assessment forms the basis of a project's stakeholder engagement plan. The plan sets out the extent and way of the productive involvement of stakeholders in the project.

Note that the stakeholder engagement matrix is technically not a component of that plan but another output of the 'plan stakeholder engagement' process. However, the plan provides insights into the desired level of stakeholders' involvement when compiling the stakeholder engagement matrix.

Other tools, techniques, and documents that can provide input for the stakeholder engagement matrix include but are not limited to:

- stakeholder analysis (identifying relevant stakeholders and their interests),
- stakeholder register (list and classification of stakeholders),
- power/interest grid and similar tools, and

Name	Role	Interest	Influence	Unaware	Resistant	Neutral	Supportive	Leading
Dr Waleed	Project Sponsor	High	High				D	C
Maha Al Solai	Project Manager	High	High				D	C
Menewer Al Muhana	Technical lead	Mid	Mid			C		D

Abdulrahman Al Sarhani	Change management lead	Mid	Mid				C D	
Ali Zahrani	Procurement	Low	Mid				C	D
Lama Al Solai	Change management staff	Mid	Low				D	
Mohammed Al Amri	Technical engineer	Mid	Low			C	D	
Nawaf Ibn Aboud	Technical engineer	Mid	Low				D	
Mousa Bahri	Office building lead	Low	Mid				CD	
Abdulrahman Al Dhweilie	Office building staff	Low	Low				D	

Table 59 Stakeholder Engagement Assessment Matrix

Conclusion

Customer service expectations continue to increase, and in fact, is becoming a very critical factor in differentiating an organization's brand, and therefore to gain and retain customers.

But meeting these expectations, while managing cost and service levels, requires investments in technology and a redesign of how service is being provided. Organizations need to make this investment. Alternatively, in the new era of global connectivity and third-party solutions, they can outsource these services to providers who have already incorporated these practices in their services, and potentially operate at a lower cost.

In either case, in the modern competitive world where pricing and product may not be the most important differentiator, customer service is fast becoming the most important element. And one of the most important aspects of customer service is a contact center that can expertly manage both online and voice interactions with customers.

Abstract

Call centers are an increasingly important part of today's business world, employing millions of agents across the globe and serving as a primary customer-facing channel for firms in many different industries.

Call centers have been a fertile area for operations management researchers in several domains, including forecasting, capacity planning, queueing, and personnel scheduling. In addition, as telecommunications and information technology have advanced over the past several years, the operational challenges faced by call center managers have become more complicated. Issues associated with human resources management, sales, and marketing have also become increasingly relevant to call center operations and associated academic research.

In this paper, we provide a full project milestone to build a new call center. Along with traditional research areas, we pay special attention to steps of creating comprehensive methods for this project starting from business case, solutions and benefits.

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- [Why Outsourcing Your help desk is a risky strategy?](#)
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- [Poor Communications in the workplace](#)
- [6 Project Leadership Styles](#)
- [How to motivate your project team](#)
- [Negotiation Skills](#)
- [Fast Tracking VS Crashing](#)
- [Behaviors in project team](#)
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