

Taqnyät



Technical Offer

SMS

Customer: Central Arriyadh Development
Company (CADC)

RFP No: CADC-RFQ-24-0024

Executive Summary

Taqnyat is proud to present its distinguished technical offer to provide comprehensive and integrated communication services, which include a wide range of services, including SMS service, WhatsApp business messaging service, automated chat, live chat, fax, voice messages, e-mail, and these services come out of our keenness to facilitate communication between companies and their customers, and enable them to communicate quickly and securely at any time and from anywhere.

Our services are characterized by a high level of quality and efficiency at an affordable cost, as we provide modern, fast and secure communication methods. Thus, customers and employees can communicate anytime and from anywhere with ease, and as Taqnyat has long experience in providing high-quality communications services, many companies and institutions have benefited from our services and achieved tangible results in improving communication with their customers. Our team also includes a group of highly trained experts and technicians, who are able to activate and launch the service as soon as possible.

We are keen in our company to provide the best level of after-sales service, to ensure the satisfaction of our valued customers with the services provided, we look forward to cooperating with you, and providing the best technical solutions that meet your needs and support your business goals. We thank you for your interest in our offer, and we look forward to cooperating with you to achieve common success.

1. Introduction

1.1. About Taqnyat

Taqnyat is the leading provider of cloud communications solutions to businesses and developers in the Kingdom of Saudi Arabia. We offer a wide range of services, including SMS, WhatsApp Business API, Voice API, and more. Our services are designed to help small, medium and large companies improve customer service, increase sales and enhance employee productivity.

We have been providing our services since 2015 and have built a strong reputation for expertise, innovation and customer loyalty. Our integrated channels and contact center capabilities give customers the ability to improve their business, products and competitive position. We serve a range of industries, including retail, IT, manufacturing, healthcare and government.

1.2. Taqnyat Products



Taqnyat offers an integrated portfolio of products and services designed to meet the needs of customers in various sectors. The communication channels provided by the company include SMS, WhatsApp, email and voice call services, giving customers flexible and efficient ways to communicate with their customers. The company is also introducing innovative cloud solutions such as "Send Technologies" and "Noor Taqnyat" that meet different customer business needs. Taqnyat services cover a wide range of sectors including education, health, e-commerce as well as the government sector, leveraging its long experience in these areas to provide tailored solutions to the needs of each sector.

1.3. Mission Techniques

Our vision is to help our customers reach their goals by reducing costs, streamlining processes, and enhancing user experiences. We are committed to innovation and continuous improvement to maintain our position as a leading provider of cloud communications solutions regionally and globally.

1.4. Vision Technologies

Our vision is to become the world's leading provider of innovative communications solutions that enable organizations to thrive in the digital age. We are committed to helping our clients achieve their goals efficiently through modern communication technologies.

1.5. Incorporation

Taqnyat was established in 2015 as a leading provider of mobile messaging services in the Kingdom of Saudi Arabia. Our vision revolves around providing high quality services at competitive prices to our customers, and since its inception, the company has been keen to build a strong reputation as a reliable and effective provider in this field, benefiting from a professional and experienced team. We also attach great importance to after-sales service to ensure customer satisfaction.

The company currently employs 30 people in different departments, with head offices in Riyadh, Jeddah, Khobar and Dammam, allowing us to efficiently deliver our services across the Kingdom.

1.6. background

The success story of Taqnyat is rooted in the background of its founders who have extensive experience in the field of ICT, having worked in the industry for several years during which they realized the gap in the mobile messaging services market in Saudi Arabia and established Taqnyat with the vision of providing high-quality mobile messaging services to its customers.

The founders' dedication to quality and customer satisfaction has been the driving force behind Taqnyat's success. They have leveraged their industry experience to create a



company focused on providing efficient, reliable, and effective mobile messaging services. This has helped Taqnyat to become a trusted partner for leading government and private companies and institutions in various fields in Saudi Arabia.

Taqnyat founders are committed to continuously improving the company's services to meet the needs of the ever-changing market. They have invested in the latest technology and have a strong technical team capable of providing innovative solutions to customers. This commitment to innovation and excellence has enabled Taqnyat to stay ahead of its competitors and cement its position as a leading provider of mobile messaging services in Saudi Arabia.

1.7. Previous Experience

Banking and government entities are of great importance in showcasing the previous experiences of our current project. They play vital roles in supporting, financing and implementing a variety of projects and initiatives. Therefore, we are pleased to provide you with a list of the main banks and government entities involved in our project, with the necessary contact information for the persons in charge. This information will be in the appropriate context to understand the depth of partnership and cooperation expected with these entities during the implementation of our project.

Banking Entities (SMS)

Entity	Delegate Name	E-mail Address	mobile number
Saudi Central Bank	Sultan Bin Muhammad As-Suwaikat	salsuwyket@sama.gov.sa	966556446987
National Bank of Pakistan	Sayed Fakhr Ahmed	fakhar.ahmed@nbp.com.pk	966561835861
Alistithmar Capital	Navindra Rajapaksa	nrajapakshe@icap.com.sa	966500987412
First Abu Dhabi Bank	Bassam Alhumaidan	bassam.alhumaidan@bankfab.com	966555499146
Albilad Investment	Khaled Mohammed Almohini	km.almohainy@albilad-capital.com	966507777501

Government Agencies (SMS)

Entity	Delegate Name	E-mail Address	mobile number
Water and Electricity Regulatory Authority	Saad Muhammad Alawda	smoudah@wera.gov.sa	966537744177
Royal Commission for Jubail and Yanbu	Ali Al , Zahrani	zahrana@rcjubail.gov.sa	966503158485
Supreme Judicial Council	Muhammad Kamel Zaout	mkamel@scj.gov.s	966554913686
Eastern Province Health Affairs	Mohammed Saeed	msaied@moh.gov.sa	966565507152
King Abdulaziz City for Science and Technology	Khalid Abdulrahman Alshahwan	kshahwan@kacst.edu.sa	966533439473
Saudi Authority for Industrial Cities and Technology Zones MODON	Marwan al, Tubayshi	mtobaishi@modon.gov.sa	966547005032
General Presidency of the Commission for the Promotion of Virtue and Prevention of Vice	Salem Al , Dossary	itprojects@pv.gov.sa	966551966091
Saudi Fund for Development	Abdullah Mohammed Albassam	a.albassam@sfd.gov.sa	966555188375

Council of Ministers Experts Authority	Abdulaziz	cloud@boe.gov.sa	966563166601
General Audit Bureau	Khalid Bin Ibrahim Alsuwaih	khalid@gab.gov.sa	966555147175
Emirate of Qassim Province	Saleh Al , Rassi	s.alghadier@alqassim.gov.sa	966555170983
Eastern Province Emirate	Faisal Bin Khalid Bawazir	f.bawazir@sharqiah.gov.sa	966505585530
Riyadh Chamber of Commerce	Fahad Bin Abdul wahab Alhusseinan	f.hsinan@rdcci.org.sa	966539196660
Arafa Commercial Industry in Abha	Saeed Almalki	salmaliky@abhacci.org.sa	966548955554
King Khalid University	Hazem Sabah	hsabah@kku.edu.sa	966557831963
Qassim University	Muhammad Alsaif	mf.alsaif@qu.edu.sa	966504890400
Jazan Municipality	Thamer Jamil Zailai	tzilaey@jazan.sa	966506765123
General Command of Security Aviation	Lieutenant Suleiman	it@gsac.pss.gov.sa	966597842393
King Fahd Armed Forces Hospital in Jeddah	Hassan Muhammad Baras	hbaras@kfah.med.sa	966541449130
South Armed Forces Hospital	Iman Asiri	easiri@msd.med.sa	966561009191
National Guard Health Affairs	Kholoud Nayef Alotaibi	almogatikh@mngaha.med.sa	966540222252
General Directorate of Civil Defense	Captain Saeed bin Abdullah Al-Shahrani	saeed998@998.gov.sa	966581489998
Ministry of Human Resources and Social Development Digital Transformation Agency	Ahmed Mohammed Saleh Althumali	a.m.althumali@hrsd.gov.sa	966564168591
Family Affairs Council	Abdullah	a.alhassan@hrsd.gov.sa	966546663688
Eastern Region Municipality	Engineer Abdullah Al Kubaish	akubaish@eamana.gov.sa	966504831446

1.8. Eligibility Criteria

Our presentation here is concerned with highlighting our distinctive technical and managerial capabilities. We will provide a comprehensive overview of the number of projects we have undertaken, as well as the total number of employees working for it and specifically the number of Saudi employees who contribute to enhancing cooperation and achieving project objectives. This information will be of great importance for a comprehensive understanding of the possibilities and opportunities available through this partnership.

Technical and administrative capabilities

Previous Experience	
10 Years	Number of years of experience in the field of qualification application
40 projects	Number of projects implemented during the last three years in the field of qualification application
SAR 73 Millions	The total value of projects during the last three years in the field of qualification application
100%	Average results of performance evaluations in previous projects with government agencies in the field of qualification application
Existing contractual obligations	
100 projects	Number of existing projects
44 Mill Riyals	Value of existing projects
Human Resources	
22	Number of Employees
14	Number of Saudi employees
%64	Percentage of Saudi employees

Financial Capabilities



3.79	for the last fiscal year- Cash Ratio
3.95	for the last fiscal year - Quick liquidity ratio
7.48	Turnover Ratio - for the last fiscal year

Project Scope Management Plan

The project scope management plan defines the boundaries and details of the project accurately, and defines the requirements and technical details to ensure that the project objectives are efficiently achieved. Collecting requirements in a professional and accurate manner contributes to identifying and clarifying customer and project needs, reducing risks and future improvements, and achieving satisfactory and effective results for the project.

Requirements Collection Team

- Project Manager: Leads the identification of requirements and ensures effective communication between the team and the client.
- Quality Assurance Engineer: Ensures that requirements comply with quality standards and follow-up to verify that the finished products meet the requirements.
- Product Technical Manager: Understands technical requirements and contributes to the development of solutions to meet them.
- Software Engineer: Transforms requirements into code and technical solutions.
- Business Analyst: Identifies and documents requirements and verifies that end products meet these requirements.
- Project coordinators: They ensure good communication between the project team and the client and help organize the requirements.
- Program Manager (client-side): Ensures that requirements align with larger program goals and follow-up to ensure that the end products meet those goals.
- Client Team: Provides requirements and feedback to the project team and verifies that the finished products meet their requirements and expectations.

Domain Management Team

- Project Manager: is responsible for defining and directing the scope of work, ensuring that all team members understand what is required of them.
- Quality Assurance Engineer: reviews the scope of work and ensures that it is carried out in accordance with the specified standards. They also provide feedback and guidance to improve processes and practices.

- Product Technical Manager: Provides technical support and guidance to the team. They help resolve technical issues that may hinder the workflow.
- Software Engineer: Collaborates with the project manager and business analyst to understand the scope of work and develop technical solutions to meet goals.
- Business Analyst: Collaborates with the project manager to identify and document business requirements and verify that the work being carried out meets these requirements.
- Project coordinators: help organize and direct the business, ensuring that everyone follows the scope of work.
- Program Manager (client-side): Monitors and ensures that the work done is in line with the objectives of the larger program and that it meets the client's needs.
- Client Team: They provide feedback and guidance and ensure that the work done complies with the client's goals and requirements

Documentation of requirements

- Document Analysis: Understand the project requirements and expected outputs by studying the booklet of conditions, specifications and special conditions provided by the client
- Outputs: Documentation of document analysis, including documentation of basic requirements and expected outputs.
- Focus groups and workshops: Identify and clarify requirements in detail through sessions with the business analyst and technical product manager. Outputs: Document specific and understandable requirements accurately and in detail.
- Questionnaires and surveys: Collect additional information from stakeholders and beneficiaries to identify their potential needs and requirements. Outputs: Documenting and analyzing the questionnaires and surveys of the obtained requirements.
- Story board: Visualize different usage scenarios and clarify requirements through a comprehensive view of the details of processes and interactions. Outputs: Documenting the storyboard and identifying functional requirements and details of operations.

Requirements Documentation Mechanism

The following is the mechanism for documenting requirements to the integrated plan for collecting requirements:

- Requirements Documentation Mechanism Objective: Document requirements in a detailed and organized manner to ensure that they are understood and tracked effectively.

Outputs: Documents documenting functional and non-functional requirements, including a list of requirements, requirements descriptions, technical drawings, models, diagrams, and any other relevant details.

- Checklists of requirements: Ensure that documented requirements are met and completed correctly and accurately.

Outputs: Inspection lists containing a set of criteria or conditions that must be met in the requirements to ensure their quality and conformity with the needs of the project.

- By adding checklists of requirements, you will be able to correctly meet documented requirements and achieve their compliance with the specified standards.

These lists will serve as a verification and inspection tool to ensure that requirements are comprehensively met and complete.

General requirements

Requirement	Compliance	Reviews
SMS Balance (in messages) 5,000,000	Comply	
Support and integration Services for 2 Years		
1. SMS notification service Available to be used by CADC team and as per CADC's need, to share SMS notifications with CADC's employees, stakeholders, and customers locally inside the KSA and globally. Service should be provided based on Saas model and should be hosted and operated inside KSA.	Comply	Taqnyat has direct connections with all operators in the Kingdom of Saudi Arabia and also have many direct or indirect relations with international providers, and Taqnyat servers is hosted inside the Kingdom of Saudi Arabia and we attached a copy of contracts for the hosting
2. SMS Balance Under CADC's account and subjected to CADC's use, as per the BOQ	Comply	Taqnyat will recharge the main account for CADC account as per the BOQ

3. Control Panel Access To enable CADC team of managing CADC's main and sub accounts and making use of CADC's SMS balance in the ways specified below in the requirements compliance table	Comply	Taqnyat allow the main account to open unlimited sub-accounts and also assign a permissions for them and transfer the balance for the sub accounts from the main account
4. Integration Gateway Through APIs ready to allow direct interactions between the SMS notification service and any integrated system from CADC's side	Comply	Taqnyat API supports a wide range of protocols (HTTP/SMPP, SMTP, FTP, XML, SOAP, COM Object) allowing for easy and fast integration with any system or application
5. Operational Support 24/7 to ensure 99.9% availability of service and response to user issues as per the SLA	Comply	Taqnyat have round-the-clock (24/7/356) technical support to help customers around the day and it will be detailed in the SLA

COMPLIANCE MATRIX

The bidder should fill in the below compliance matrix, which will be part of the technical evaluation and the contract:

ID	Requirement	Compliance (Yes/ No)	Comment
1.	Service availability 24/7	Yes	Taqnyat have round-the-clock (24/7/356) technical support to help customers around the day and the are human
2.	Reachability for KSA-local and international numbers	Yes	Taqnyat has direct connections with all operators in the Kingdom of Saudi Arabia and also have many direct or

ID	Requirement	Compliance (Yes/No)	Comment
			indirect relations with international providers
3.	Guarantee of messages delivery to recipients within SLA	Yes	Taqnyat systems send messages at no less than what was agreed upon in the SLA, in the normal situation and even at peak times.
4.	Queueing technique to manage any type of interceptions and ensure delivery of intercepted messaging operations	Yes	Taqnyat designed programs and the used servers guarantee 99.98% of up time services. Also Taqnyat support the failover between operators to ensure the delivery of the SMS without additional cost
5.	Integrability through APIs	Yes	Taqnyat API supports a wide range of protocols (HTTP/SMPP, SMTP, FTP, XML, SOAP, COM Object) allowing for easy and fast integration with any system or application.
6.	Access to control panel \ management platform, enabling flexible and independent - Profile management - Contacts grouping - Activities logging, either accounts activities or messaging operations - Messages scheduling	Yes	Taqnyat platform allow the following functionality - Profile management - Contacts grouping - Activities logging, either accounts activities or messaging operations

ID	Requirement	Compliance (Yes/No)	Comment
			Messages scheduling
7.	Whitelisting of CADC's sender name	Yes	Taqnyat will white list CADC's sender name
8.	Operational Support as per the specified SLA	Yes	Taqnyat have round-the-clock (24/7/356) technical support to help customers around the day and it will be detailed in the SLA

Non-functional requirements

- Ensure that cyber risks are addressed and cybersecurity requirements for cloud computing and hosting are adequately and effectively implemented.
- Protect the entity's information and technical assets in cloud computing services that are hosted, processed or managed by external parties.
- Protect the entity's assets from cybersecurity risks related to third parties, IT support services and managed services.
- Comply with approved data office policies such as data classification policy, data sharing, publishing open data, protecting personal data, and documenting systems and data.
- Access to the customer's systems must be from within facilities only. In the event of the need for support from outside the customer's environment or remote access, written consent is obtained from the customer before organizing such activities and following the necessary procedures and obtaining approvals for that.
- Data sharing (with non-customer): Data must not be shared or transferred outside the customer's systems and the contractor is fully responsible for sharing or leaking customer information.
- Compliance with all requirements and standards of interoperability of health systems when implementing the project specified by the National Center in order to ensure the readiness of health information systems at the Health Affairs for the requirements of linking with the unified health file project (Nafees)

Administrative requirements

- Administrative plans and outputs
- Project Management Plan | Project Management Methodology and Output Management
- Outputs | Program Management Plan (Roadmap)
- Outputs | Project Charter
- Project Management Plan | Scope Management Plan
- Project Management Plan | Schedule Management
- Project Management Plan | Quality Management Plan
- Project Management Plan | Project Organization Structure
- Project Management Plan | Communication Management Plan
- Project Management Plan | Issue Management Plan
- Project Management Plan | Change Management Plan
- Project Management Plan | Risk Management Plan
- Project Management Plan | Document Management Plan
- Project Management Plan | Contact information of the project head office and contacts with the acting project office
- HR Project Plan | Organizational Structure and Project Manager
- Project Management Plan | Relationship with the subcontractor (if any).
- Outputs | Supplier Management Plan
- Project Management Plan | How to monitor the progress of project work
- Project Management Plan | Periodic reports on workflow progress
- Outputs | Project Reports
- Outputs | Quality Reporting Document
- Outputs | Knowledge Transfer Plan
- Outputs | Internal processes. OR
- Outputs | Operations for external SLA
- Outputs | SLA Document
- Outputs | method of measuring and following up development services.
- Outputs | Development Services Management Agreement
- Termination of Contract | Contract Transfer Plan (Exit Plan)
- Outputs | Expected Risk Assessment Document

Project scope preparation procedures

The procedures for preparing and building the scope of the project can be illustrated as follows:

- Goal setting: The project manager and the program manager (from the client team) work together to define the main objectives of the project.

- Requirements aggregation: Requirements are compiled from interested parties. This task typically requires the involvement of the business analyst and the client team.
- Transforming requirements into specifications: The product technical manager and software engineer work to transform requirements into actionable technical specifications.
- Quality Assessment: A quality assurance engineer assesses the quality of specifications and ensures that they meet the specified quality requirements and standards.
- Project scope preparation: The project manager, with the help of project coordinators, documents all the information gathered in an integrated plan containing the detailed scope of the project.
- Review and approval: The program manager and client team review the scope and give approval

Project Scope

The project will include the following components to meet the needs of the project:

- SMS Balance (in messages) 5,000,000
- Support and integration Services for 2 Years
- Cloud Transmitter Platform
- The system includes the following:
 - General requirements
 - COMPLIANCE MATRIX
 - Requirements List:
 - non-functional requirements
 - Administrative requirements
 - Project scope preparation procedures

Business segmentation structure

The following is the business breakdown structure of the project (WBS – Work Breakdown Structure)

- Project Launch:
 - Charter Development
 - Identify stakeholders
 - Distribution of roles and responsibilities
 - Receipt of documents and powers
 - Activate the service
- Planning:
 - Requirements Identification and Business Analysis
 - Project Plan

- Monitoring and follow-up plan
- Delivery and closing plan
- Installation of the system:
 - Scan System/Solid Equipment
 - System Scan Software
 - System Installation
 - System configuration
 - System Experience
 - System Training
- Delivery and operation:
 - Operation & Maintenance
 - Knowledge transfer
 - Evaluation and follow-up
- Final Shutdown:
 - Final Report
 - Exit and move

Out of range

The project does not include any of the following:

- Hardware, the contractor is not required to prepare any solid equipment for the project
- Systems other than required in the technical presentation.
- Modifications or additions to the customer's systems.
- Technical support for hardware or software that is not part of the system provided to the customer
- Provide training to users on other software not directly related to the customer's system
- Send any other messages that are not part of the services agreed upon in the financial or technical contract.

Assumptions

Possible assumptions for the client's project:

- Users: Assume that the end users of the system have knowledge of the underlying technology and the ability to use mobile devices to receive WhatsApp.
- Technology: We assume that your existing communications infrastructure effectively supports WhatsApp service.
- Compatibility: We assume that the system will be compatible with different users' devices and operating systems.
- Privacy and security: We assume that the system will be able to protect the privacy of users and that all data sent and received via WhatsApp will be safe.

- Laws and Regulations: We assume that the system will be compatible with all local and national laws and regulations related to telecommunications.
- Human Resources: We assume that the team has the necessary skills and experience to implement the project.
- Timeline: We assume that the project timeline is realistic and achievable.
- Taqnyat is committed to activating the service within 10 days and any delay in activating the services from other parties is considered compulsive and Taqnyat is not responsible for the delay
 - Activating the names of the senders is a service that Taqnyat manages on behalf of the customer with a computing company and any delay is caused by the computing company themselves
 - The customer is solely responsible in the event of delay in providing Taqnyat any of the documents required to activate any of the above services, and the delay time is added to the time when the service/services associated with it is required to be activated.

Limitations

Determinants are the factors that define the parameters of a project and give a framework for scope. For a client's project, it can include the following limitations:

- Project Objectives: Clarify what is expected to be obtained from the project. The goals must be measurable and clear. For example, it could include providing an efficient and reliable text messaging service to citizens.
- Target audience: Individuals or groups that will benefit from the project must be identified. This target audience may include all citizens or a specific group of people.
- Budget: The available budget for the project must be specified. Funding may be required from external sources.
- Timeline: Set the project timeline, including the expected start and end of the project and key objectives.
- Resources: Identify the people, tools, and technology required to implement the project.
- Quality Standards: Define the quality standards that the project must adhere to. These standards may include performance, reliability, and security.
- Legal requirements and regulations: Determine which laws or regulations the project should comply with.
- Remember that these parameters must be specific, clear and measurable, and should be regularly reviewed and updated during the planning, implementation, and monitoring phases of the project.

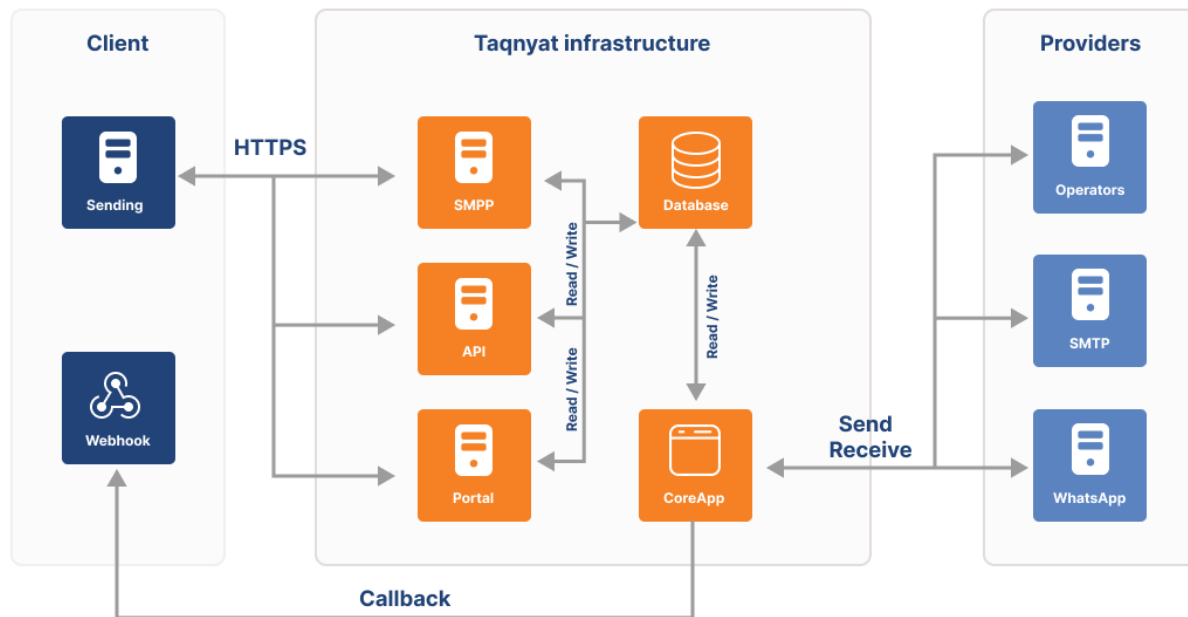
Procedures for changing the scope of work of the project



The following are the procedures for dealing with any change in the scope of work in the project outside the approved scope:

figure	Procedure	Significance	Administrator	Output	Observations
1	Definition of change requirements	Ensure that all changes are properly understood and understood.	Client + Techniques	Document defining change requirements	Ensure that you fully understand the required change
2	Impact assessment	Determine how these changes will affect the scope of the project.	Techniques	Impact Assessment Report	The report should include the potential benefits and expected challenges of change
3	Approve the change	Decide whether changes should be made or not.	Client	Decision to approve/reject the change	Decisions must be properly documented
4	Implementing change	Ensure that changes are implemented effectively as per requirements.	Techniques	Updates and changes implemented	Be sure to monitor changes and do appropriate testing
5	Final Review	Verify that all changes were made correctly and accepted.	Client	Final Audit Report	Any additional notes or changes that may be necessary should be documented
6	Updating documents and systems	Update all relevant documents and systems to reflect changes.	Techniques	Updated documents and systems	All the
7	Updating documents and systems	Update all relevant documents and systems to reflect changes.	Techniques	Updated documents and systems	All relevant documents and systems must be updated to reflect the changes that have been implemented

2. Architecture Design



3. Specifications

Taqnyat has won the trust of thousands of customers to become one of the largest providers of telecommunications services in the Kingdom of Saudi Arabia serving various business sectors and fields of various sizes, and the following are some of the specifications and advantages offered by Taqnyat in general in addition to the advantages of the required systems.

3.1. Specifications and features offered by Taqnyat in general

Here are some of the specifications and advantages that are offered in technologies in general

3.1.1. Credibility

High credibility is one of the most important features that make Taqnyat the first choice for many customers in various disciplines and fields in the Kingdom of Saudi Arabia, according to a study carried out by the quality team in Taqnyat, where their answer to the question of why I chose Taqnyat was high credibility and outstanding customer service.

3.1.2. Security, protection and data privacy

The aspects of security, protection, privacy and confidentiality of data are one of the most important aspects that are taken into account when adopting mobile messaging technology as a communication tool for companies and institutions of all sizes and fields, so the technologies give special attention to this aspect through the application of strict security and protection policies at several levels so that they ensure, God willing, the preservation of servers, programs and data from any infringement or illegal access.

The aspects of security, protection, privacy and confidentiality of data are one of the most important aspects that are taken into account when adopting mobile messaging technology as a communication tool for companies and institutions of all sizes and fields. To ensure the highest level of security and protection, Taqnyat has received globally recognized certifications including ISO 27001 and ISO 27002.

ISO 27001 certification reflects compliance with international security standards and emphasizes the presence of an information security management system in place. This certification contributes to the identification and assessment of risks and the development of security strategies.

In addition, Taqnyat has obtained ISO 27002 certification that guides security strategies and implements effective information security practices, these certifications help Taqnyat achieve high standards in the field of security and protection and ensure that data, servers and software are safe and protected from any threat or unlawful breach.



3.1.3. Continuity and service efficiency

Taqnyat systems send messages at no less than what was agreed upon in the SLA, in the normal situation and even at peak times. However, perfection belongs to God alone, as there may be a defect or error for one reason or another, knowing that the possibility of this happening is very rare, and if it occurs, backup systems are activated to ensure continuity.

3.1.4. Communications Commission License

Taqnyat is an official Saudi company licensed by the Communications and Information Technology Commission in the Kingdom of Saudi Arabia as an official company providing mobile messaging services under number: 121-10-29

3.1.5. Transmission timing

Users of the message system can control the time of sending messages, they can send instant messages so that they are sent immediately after pressing the send messages button or specify the time and date so that the message is automatically sent at that time and date, and the user can cancel and delete scheduled messages if he wants to.

3.1.6. Performance and speed of message delivery

The time it takes for messages from the moment of sending until the messages reach the provider is measured in fractions of seconds, and technologies ensure that messages reach the end user in most cases within a few seconds and the speed of arrival is affected by the size of the transmission on the network receiving the messages. The sending time does not exceed 15-30 seconds with a notification of dispatch for each message or as agreed in the SLA.

3.1.7. Balances and Accounts Report

An instant report showing the status of accounts and balances will be provided as well as a report showing messages sent by any account or user.

3.1.8. Possible transmission quantities

The system can deal with huge quantities (millions) of messages at once, whether it is one message to more than one contact or more than one message to more than one contact at the same time, and only requires sufficient balance to send the quantity to the numbers to be sent.

3.1.9. Parallel and multiple use

Messages can be sent through various programs, applications and links from anywhere in the world and from more than one location at the same time and to any place in the Kingdom of Saudi Arabia and to any mobile device.

3.1.10. Ease of use

The interfaces and screens of systems and applications of technologies and the application of the principles of user experience have been designed so that the screens are easy to use and in a logical sequence that can be understood and dealt with by the largest category of users by adopting the method of reducing the options available to the user and thus making it easier for him to move forward in achieving his goal and accomplishing what is required of him quickly and without any complications while providing the necessary training to users.

The main display panel also clearly displays the balance available in the account in the form of a cash balance and the equivalent number of messages that can be sent with this balance, which makes it easier for the user to track the balance to avoid running out and thus interrupting the transmission.

3.1.11. Communication channels and protocols

Several channels and protocols are used for transmission, such as HTTP communication, and communication channels can be provided to the customer according to the customer's need with assistance in the integration and operation process.

3.1.12. Integration through API

Taqnyat allows integration with all current and future programs and databases (Oracle, .net, and other) as well as monitoring systems (HP open View) through API technology and other methods that it provides to customers to send messages, check balance, etc. with templates and code examples that help developers complete the integration process, as well as Taqnyat customers can at any time take free consultation from their developer staff to help use and install the code for sending messages at any time.

Our API supports a wide range of protocols (HTTP/SMPP, SMTP, FTP, XML, SOAP, COM Object) allowing for easy and fast integration with any system or application.

3.1.13. Reports

Several reports will be provided according to the conditions and specifications file, including (sent, messages that were not sent, Campaign report, service ranking).

3.1.14. Data Centers

Taqnyat provides its services through three data centers distributed in different locations as follows:

- Noor Net Data Center - Riyadh.
- Sahara Data Center - Dammam.



In addition, we messages maintain the privacy of our customers' data with a Class C data center. We offer data centers of various sizes at Tier1 , Tier2, Tier3 and Tier4 levels.

4. General Specifications and Standards for Messaging

5.1 SMS Features:

4.1.1. Sender Name

The system administrator can use a customized sender name for the organization so that this name appears on the mobile device of the recipient of the message as the sender of the message, and according to the global mobile messaging system, this name shall consist of 11 characters and in the English language (Alphanumeric).

4.1.2. Message Size

According to international standards for mobile messaging systems:

If a message is in Arabic letters:

- If the number of its letters is 70 or less, then it is considered one message.
- If it exceeds that up to 134 (67 + 67), then it is considered as two messages.
- If it exceeds 134 until 201 (67 + 67 + 67) then it is considered as Three messages, and so on. Every 67 characters become a point (or message), and the transmission system of Taqnyat can send messages of more than five messages in length.

4.1.3. Multi-Language Support

The mobile message can be written and sent in Arabic or English, and a single message can support both languages at the same time.

4.1.4. Hardware and Software

Taqnyat understands that a large number of the messages sent through the mobile messaging service are of a high sensitivity that requires a high speed in response and the delivery of information. Therefore, Taqnyat has developed fast programs and servers that can allow thousands of users to receive million messages within a very short period and within the least interruption. Following is some information about the hardware, equipment, and software that the Taqnyat uses to complete the process:



4.1.5. Software

1.1.1. Sending Engine and the program of Communication with Telecommunications Companies

It is an advanced and comprehensive program designed to facilitate the processes of sending and receiving mobile messages. This program receives the message from the transmission program and reformats it so that it is understood by the communication systems and then transmits it to the concerned telecommunications company. It enables the establishment of a sending gateway to send messages through several types of communication channels. Here are some of the advantages of this engine:

4.1.6. General Features:

- This engine is a standalone application by itself that does not require any other application to run.
- Real time processing.
- An internal database management system.
- Easy integration with applications, programs, and external databases.
- Ability to change local area settings.
- User-friendly, clear, and customizable interfaces.
- A comprehensive help system that explains screens, buttons, and uses.

Telecommunication

- The possibility of multiple and simultaneous communication at the same time.
- Links to communication portals and mobile messaging center.
- Support for a large number of communication protocols.
- Unicode support for mobile messages.
- Automatic reconnection in case of loss of connection.
- Record message logs.
- Communication settings protection feature.

4.1.7. Services

- The possibility of running a number of services simultaneously.
- Filter received messages based on several conditions.
- The possibility of automatic export of external data sources.
- Multiple screen feature support.

4.1.8. Messages

- Ability to control the sender's name.
- Long mobile messages support.
- Control the priority and order of messages (role).
- Control of the maximum balance that is deducted.
- Ability to delete messages or stop them before sending.
- Protection of sent messages.

4.1.9. Transmission Program

It is a program in which messages are entered, managed, and sent and it contains many advantages such as storing numbers and groups, importing, and exporting numbers, sending smart messages, scheduling sending and sent messages reports. This program is linked to a main mobile message account where the administrator manages and supervises the process of opening sub accounts.

Furthermore, the program contains several features and capabilities, which fall into two interfaces: the administrator and the members. The following are the most important advantages for each of them:

Administrator Interface:

- An admin control panel protected with a username and password, and it provides security for all program pages.
- Adding members and subscribers to the mobile messaging service and the ability to amend their data.
- Ability to recharge members' balances and transfer credit.
- Ability to view sent, pending and scheduled messages through the program or through the members.
- Ability to control the sender's name so that it requires the approval of the supervisor.
- Ability to import and export numbers to and from excel files or text files.
- Reports of messages sent to all members according to date and time of sending, sender name, or the sending member, and others.

4.1.10. Members Interface:



- The subscriber can login to his/her account with a username and password of his/her own. The account is secure and provided with the ability to change the password.
- Control the sender's name.
- Adding numbers and names to the address book with the ability to import and export numbers.
- The ability to add groups and enter numbers from the address book.
- Sending mobile messages to any number or member in a group.
- The smart sending feature, in which a general message is sent containing special variables such as name and mobile number.
- A message counter that shows the number of characters as well as the number of messages that will be deducted while typing.
- The message verification feature before sending helps to make sure the numbers are correct and free of errors.
- Several reports to view sent, pending, and other messages.

4.1.11. Transmission engine and communication program with telecommunications companies

- It is an advanced and comprehensive program designed to facilitate the sending and receiving of mobile messages. This program receives the message from the transmission software and reshapes it so that it is understood by the communication systems and then transmits it to the respective telecommunications company. It makes it possible to create a sending gateway to send messages across several types of communication channels.

Here are some of the advantages of this engine:

General Benefits

- This engine is a standalone application in its own right that does not need any other application to work.
- Real time processing.
- Internal database management system.
- Easy integration with external applications, programs and databases.
- The ability to change the settings for the local area.
- Easy, clear and customizable interfaces to use.
- A comprehensive assistance system that shows screens, switches and uses.

Contact

- The possibility of multiple and simultaneous communication at the same time.
- Links to communication portals and a mobile message center.



- Support a large number of communication protocols.
- Support Unicode mobile messaging.
- Automatic reconnection if connection is lost.
- Log message traffic.
- Connection settings protection feature.

Services

- The ability to run a number of services simultaneously.
- Filter received messages based on several conditions.
- The possibility of automatic export of external data sources.
- Support for multi-screen feature.

4.1.12. Devices, equipment and communication channels used in transmission systems:

The following devices and equipment are used by Taqnyat to provide mobile messaging service through it to all its customers, and these equipment are considered special to Taqnyat and work under the supervision of its technical staff and within a high-precision monitoring system around the clock to ensure the best quality, God willing.

Firewall

It is one of the security and protection methods used to ensure that there are no intrusions or infringements on servers.

Alternative power supplies

All servers are connected to alternative power supplies that operate automatically in the event of a power outage so that this outage does not affect their operation.

Mobile Devices

There are a number of mobile devices of various types (iPhone, Android, Symbian) dedicated 24 hours a day to receive mobile messages scheduled periodically in order to ensure that the servers are working properly.

4.1.3. Transmission Program

- This is a program designed for entering, managing, and sending messages, featuring various functions such as storing numbers and groups, importing and exporting numbers, sending smart messages, scheduling transmissions, and generating reports on sent messages. The program is linked to a main mobile messaging account, and the administrator manages and oversees the creation of sub-accounts. The program includes several features accessible through two interfaces: the administrator and the users. Below are the key features of each:
- First: Data Display Interfaces: The website is available in both Arabic and English.
- Second: Types of System Users:



1. System Administrator: Has full control over the system, users, credit balance management, and full system control.
2. Restricted User: Has permissions like any other user except for the ability to send messages directly, pending approval from the system administrator.
- Third: Control Panel: Accessible via the administrator's login credentials (username and password), the control panel provides access to systems that manage the website and includes the following:
 - I. User Management System: Allows the administrator to control and manage user accounts (username, password, mobile number, email, balance). Key features include:
 - Adding users and managing their permissions, including:
 - Account blocking/activation.
 - Sending SMS messages.
 - Defining the sender's name.
 - Setting recipient numbers.
 - Recharging users' balances.
 - Monitoring users' balances daily.
 - An archive of login and logout activities.
 - II. Dashboard Monitoring System: A dedicated page providing the administrator with daily reports of the latest sent messages, message transactions throughout the day, user balances, and pending and scheduled messages.
 - III. Message Box System: Allows the administrator to save message templates (frequently sent messages) for use at any time.
 - IV. Message Sending Form: A form enabling the administrator to send SMS messages through the system, with the following features:
 - Sending messages in both Arabic and English.
 - Sending messages individually or in bulk.
 - Sending messages directly from an MS Excel file.
 - Scheduling message sending.
 - Recurring messages (daily, weekly, monthly, semi-annually, annually).
 - Sending messages using information from an MS Excel file, containing details for each message.
 - V. Sent Messages Management System: Allows the administrator to manage sent messages, with features including:
 - Deleting messages.
 - Detailed search for messages using all available message information.
 - Exporting messages to a CSV file.
 - Printing sent messages.
 - VI. Pending Messages Management System: Allows the administrator to manage user messages before they are sent, including:
 - Approving messages.

- Rejecting messages.
- Viewing message recipient numbers.
- VII. Scheduled Messages Management System: Enables the administrator to control scheduled messages, with features including:
 - Deleting messages before they are sent.
 - Detailed search for messages using all available message information.
 - Changing the time for message delivery.
- VIII. Balance Report System: Allows the administrator to view all users' balances to ensure the administrator's balance covers users' balances.
- IX. Group Management System: Allows the administrator to manage their groups, with features including:
 - Adding groups.
 - Editing groups.
- X. Number Management System: Allows the administrator to manage their numbers, with features including:
 - Adding and editing numbers on the website.
 - Deleting numbers.
 - Removing duplicate numbers.
 - Searching for duplicate numbers.
 - Searching for numbers.
 - Exporting numbers to CSV files.
 - Importing numbers from CSV files.
 - Bulk number addition.
 - Moving and copying numbers between groups.
- Third: User Control Panel:
Accessible to users through login credentials (username and password), offering the following:
 - I. Message Sending System: Allows users to send messages via the website, with features including:
 - Sending messages individually or in bulk.
 - Sending messages from an Excel file.
 - Sending messages directly from an Excel file.
 - Sending messages from "My Groups."
 - Scheduling message sending.
 - II. User Group Management System: Allows users to manage their groups, with features including:
 - Adding groups.
 - Editing groups.
 - III. User Number Management System: Allows users to manage their numbers, with features including:

- Adding and editing numbers on the website.
- Deleting numbers.
- Removing duplicate numbers.
- Searching for duplicate numbers.
- Searching for numbers.
- Exporting numbers to CSV files, and importing numbers from CSV files.
- Bulk number addition.
- IV. Sent Messages Management System: Allows users to manage messages they have sent, with features including:
 - Deleting messages.
 - Detailed search for messages using all available message information.
 - Exporting messages to a CSV file.
 - Printing sent messages.
- V. Scheduled Messages Management System: Enables users to manage scheduled messages, with features including:
 - Deleting messages before they are sent.
 - Detailed search for messages using all available message information.
 - Changing the time for message delivery.
- VI. Prepared Messages Management System: Allows users to manage prepared messages they have added, including editing and organizing them under main categories for prepared messages.
- VII. Alert Message Management System: Sends a notification to the user when the balance reaches a predefined limit, set through the alert message settings.
- VIII. Account Settings: A page for editing the user's account information on the website.
- IX. Help Page: Provides tutorials for users to explain the program's features and how to use them.
- Fourth: API Sending Links: This is a service designed to facilitate the integration of customer applications with the website, regardless of the programming language used.
- 4.1.4. Devices, Equipment, and Communication Channels Used in Transmission Systems:
 - The following devices and equipment are used by Taqnyat to provide mobile messaging services to all its customers. These devices are owned by Taqnyat and are managed by its technical staff, with 24/7 high-precision monitoring to ensure optimal quality.
 - Firewall: A security measure used to prevent unauthorized access or breaches of the servers.

- Backup Power Supplies: All servers are connected to alternative power units that activate automatically in case of power outages to ensure uninterrupted operation.
- Mobile Devices: Various mobile devices (iPhone, Android, Symbian) are dedicated 24/7 to receive scheduled mobile messages regularly to ensure the servers are functioning correctly.
- SMPP Communication Channel: This is the channel used to transmit messages from Taqnyat's servers to telecom company servers. An SMPP account can be provided to the client if needed. The SMPP protocol includes key concepts and functions, such as:
 - Bind and Authentication: When initiating communication with the server, the client must connect through certain channels and authenticate using valid credentials.
 - Message Sending and Receiving: Clients can send SMS messages to the message center and receive messages from it, including delivery confirmations and status reports.
 - Session and Connection Management: The SMPP protocol allows for long-term session connections between the client and the server, facilitating efficient data exchange.
 - Bulk Messaging: SMPP can be used to send SMS messages to large groups of recipients at once.
 - Number Handling: The protocol enables handling phone numbers and shortcodes, such as adding or removing leading zeros.
 - Delivery and Receipt: The protocol can provide reports on message delivery and status, including confirmation of receipt.
- HTTP and HTTPS Communication Channels: These channels are used to transmit messages and information from applications to Taqnyat's servers. An HTTP account can be provided to the client as needed. Taqnyat has direct communication links with Saudi telecom companies, with no third parties or intermediary servers, enhancing the speed of transmission. Additionally, Taqnyat has global links that support most telecom networks worldwide.

4.1.13. Transmission engine and communication program with telecommunications companies

- It is an advanced and comprehensive program designed to facilitate the sending and receiving of mobile messages. This program receives the message from the transmission software and reshapes it so that it is understood by the communication systems and then transmits it to the respective telecommunications company. It makes it possible to create a sending gateway to send messages across several types of communication channels.

Here are some of the advantages of this engine:

General Benefits

- This engine is a standalone application in its own right that does not need any other application to work.
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- Internal database management system.
- Easy integration with external applications, programs and databases.
- The ability to change the settings for the local area.
- Easy, clear and customizable interfaces to use.
- A comprehensive assistance system that shows screens, switches and uses.

Contact

- The possibility of multiple and simultaneous communication at the same time.
- Links to communication portals and a mobile message center.
- Support a large number of communication protocols.
- Support Unicode mobile messaging.
- Automatic reconnection if connection is lost.
- Log message traffic.
- Connection settings protection feature.

Services

- The ability to run a number of services simultaneously.
- Filter received messages based on several conditions.
- The possibility of automatic export of external data sources.
- Support for multi-screen feature.

4.1.14. Devices, equipment and communication channels used in transmission systems:

The following devices and equipment are used by Taqnyat to provide mobile messaging service through it to all its customers, and these equipment are considered special to Taqnyat and work under the supervision of its technical staff and within a high-precision monitoring system around the clock to ensure the best quality, God willing.

Firewall

It is one of the security and protection methods used to ensure that there are no intrusions or infringements on servers.

Alternative power supplies

All servers are connected to alternative power supplies that operate automatically in the event of a power outage so that this outage does not affect their operation.

Mobile Devices

There are a number of mobile devices of various types (iPhone, Android, Symbian) dedicated 24 hours a day to receive mobile messages scheduled periodically in order to ensure that the servers are working properly.

5. Project Timeline Management Plan

The Project Timeline Management Plan is a detailed tool that identifies and directs all time-related activities and tasks within a project. It helps determine the project time frame, determine the duration of tasks, determine the sequence and dependency between tasks, and expectations about delivery.

In the context of the project, the schedule management plan plays a vital role in ensuring the successful implementation of the project. It helps achieve project objectives on time, reduce gaps and delays, improve coordination between teams and participating parties, and provide a clear vision of progress and performance. Thus, the project can provide effective and timely services to beneficiaries and achieve the desired results.

Project Timeline Management Team

The following are the main roles and responsibilities of the project team from both parties: Contractor (Taqnyat) and Client:

Contractor Team

- Project Manager:
 - It develops and updates the project schedule.
 - It monitors progress based on schedule and updates it according to changes.
- Quality Assurance Engineer:
 - Monitors the project schedule to ensure that all quality activities are scheduled and proceeded as planned.
- Product Technical Director:
 - Monitors the schedule to ensure that all technical activities are properly scheduled.
- Software Engineer:
 - Performs programming work on schedule and provides updates to the project manager.
- Business Analyst:
 - It provides input to the schedule based on business requirements and tracks progress.

- Project Coordinators:
 - They assist in coordination and time updates of all activities within the project.

Client Team:

- Administrator:
 - Monitors project progress based on schedule and provides approval for any changes.
- Client Team:
 - Provides input to the schedule based on needs and expectations.
 - Monitors the progress of the project and provides the necessary updates to the program manager.

Project Timeline

The following figure shows the proposed timeline for the implementation of the project (in weeks)

Period in Weeks	Period in Days	Task															
		1	2	3	4	5	6	7	...	...	...	...	20	...	...	...	156
Project Launch	3																
Charter Development	3																
Stakeholder Identification	3																
Role and Responsibility Assignment	3																
Receipt of Documents and Authorizations	3																
Service Activation and Sender Name Registration	10																
Planning	10																
Requirements Identification and Business Analysis	5																
Project Plan Development	5																
Monitoring and Follow-up Plan	5																
Delivery and Closure Plan	5																
System Installation	12																
Hardware System Inspection	2																
Software System Inspection	2																
System Installation and Configuration	2																
System Testing	2																
System Training	4																
Delivery	90																
Delivery of Technical Features	90																
Knowledge Transfer	90																
Operations	1080																
Operation and Maintenance	1080																
Evaluation and Follow-up	1080																
Final Closure	90																
Final Report	5																
Exit and Handover	90																

Project Timeline Management - (Click Up)

Click Up is a multi-purpose project and task management tool that offers a range of features that make project management more effective and seamless. Here are some of the benefits that Click Up offers:

- Flexible customization: Click Up can be highly customized to suit your team's unique needs, from individual tasks to project overview.
- User-friendly user interface: Click Up has a clean and intuitive design that makes it easy to navigate and operate.
- Powerful task management features: includes lists, tasks, goals, notes, calendar, etc., making it easy to track progress and organize work.

- Integration with other tools: Click Up easily integrates with many other tools such as Google Drive, Slack, GitHub, and others.
- Automate tasks and processes: Click Up can automatically assign tasks, send updates, and other processes to streamline the work process.
- Time tracking and reporting: Click Up can track the time team members spend on various tasks, and provide detailed reports on productivity and performance.
- Agile and kanban management: Click Up supports agile approaches and offers kanban presentations to organize tasks and track progress.
- Click Up is a comprehensive tool that offers a wide range of features that make project management more efficient and effective

Project Timeline Change Procedure

Here are the procedures for dealing with any change in the timeline in the project:

figure	Procedure	Significance	Administrator	Output	Observations
1	Identify the proposed change	Understand the potential impact of the change on the schedule	Techniques	Documenting the proposed change	Identify activities that will be affected by change
2	Assessment of potential impacts	Measure how the change affects your current schedule	Client	Impact Assessment Report	Other affected activities should be taken into account
3	Review the schedule	Determine if the current schedule is able to accommodate the change	Techniques	Review the report	Maybe it's necessary to update the timeline
4	Adoption of change	Final decision on the proposed change	Client	Decision Document	The decision must be made after considering all factors
5	Update timeline	Make changes to the schedule and ensure that all relevant parties are aware of the change	Techniques	Updated timeline	All relevant parties should be aware of the changes
6	Follow-up and monitoring of the new schedule	Ensure that changes are complemented according to the new plan and schedule	Techniques & Client	Monitoring and follow-up reports	The project schedule should be monitored periodically
7	Performance appraisal after change	Analyze the effectiveness of change and the actual impact on the schedule	Client	Performance Appraisal Report	All changes must be taken into account when evaluating performance
8	Reporting progress and results	Disclosure of the impact of changes on the timeline of all project parties	Techniques	Progress Report	Regular reporting helps maintain transparency and control of the project

6. Project Management Plan | Project Management and Implementation Methodology

Project management methodology is the method or method that is followed to organize and implement a project. A project management methodology is a set of practices and tools that guide the overall process of a project and help achieve the goals set in an effective and structured manner.

The importance of choosing a project management methodology:

- Standardization and organization of work: The project management methodology provides a unified and structured framework for effective project management, facilitating communication and collaboration between team members and ensuring that activities are carried out according to a specific plan.
- Increase efficiency and productivity: The methodology helps improve project management and work organization, leading to increased efficiency and productivity and more effective achievement of goals.
- Risk reduction: A project management methodology helps to identify and manage potential risks that a project could face, reducing the occurrence of unwanted problems and delays.
- Improved planning and organization: The optional methodology allows for extensive and comprehensive planning of all aspects of the project and systematic organization of work, which increases the chances of success and achievement of the desired results.

Comparison between the traditional method (Waterfall) and the agile method (Agile)

Traditional method (Waterfall):

- It is based on the sequence of work steps sequentially and a predetermined plan.
- Requirements, design, development, testing and delivery are determined in a specific order.
- The project is implemented as a single total, and no progress is made to the next stage until the completion of the current phase.
- Suitable for projects whose requirements are clearly defined and consistent, and need careful planning and comprehensive documentation.

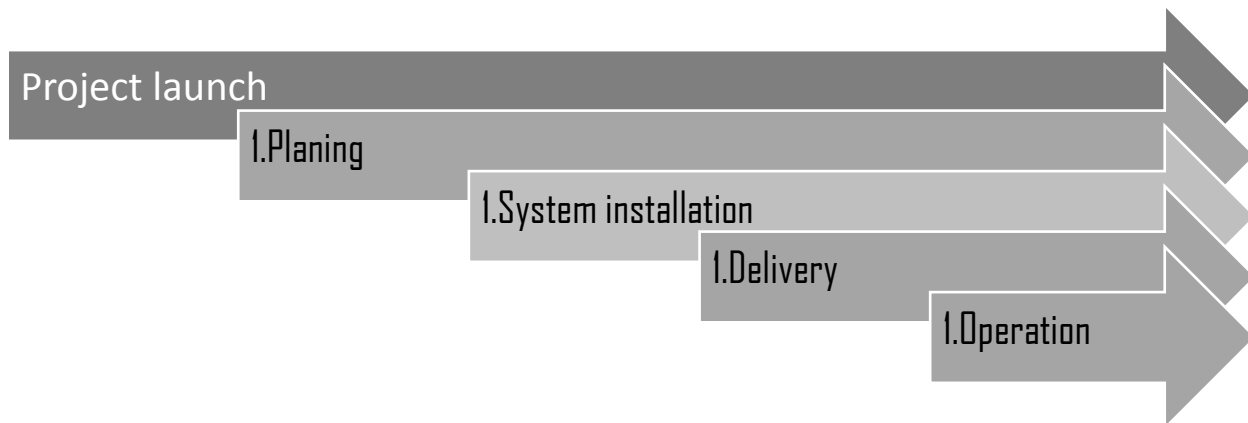
Agile Method :

- It relies on interactive development and continuous cooperation between team members and customers.
- The project is divided into short and consecutive cycles called sprints.
- The basic requirements are identified and worked on simultaneously and iteratively developed.
- Allows changes, continuous improvement, adaptation to requirements changes, and early detection of errors.
- Suitable for projects that need flexibility, rapid progress and continuous cooperation with customers.

Detailed schedule of main and sub-stages of work:

figure	Main stage	Sub-stage	Input	Output	Observations
1	Project Launch	Charter Development	Project Objective, Available Resources	Setting goals and resources	Project Charter
1	Project Launch	Identify stakeholders	Charter, Objectives	Identify and document stakeholders	List of stakeholders
1	Project Launch	Distribution of roles and responsibilities	List of stakeholders	Assign roles and responsibilities	Project Structure Drawing
1	Project Launch	Receipt of documents and powers	Roles and Responsibilities	Signing documents and granting powers	Signed documents and powers granted
1	Project Launch	Activate the service and define the sender's names	Forms required to activate the sender name and contract	Active account and active sender name with all distributors	Documents certified by the Chamber of Commerce and a contract signed and stamped by the administration
2	Planning	Requirements Identification and Business Analysis	Charter, Stakeholders	Requirements identification and analysis	Requirements Documents
2	Planning	Project Plan	Requirements Documents	Preparation of the project plan	Project Plan
2	Planning	Monitoring and follow-up plan	Project Plan	Preparation of a monitoring and follow-up plan	Monitoring and follow-up plan
2	Planning	Delivery and closing plan	Monitoring and follow-up plan	Preparation of a delivery and closing plan	Delivery and closing plan
3	System Installation	Scan System/Solid Equipment	Solid equipment, system requirements	Solid Equipment Verification	Solid Equipment Inspection Report
3	System Installation	System Scan Software	Software, System Requirements	Software Verification	Software Inspection Report
3	System Installation	System Installation	Inspection reports, system requirements	System Installation	Installed system
3	System Installation	System configuration	Installed system	System configuration	System prepared for work
3	System Installation	System Experience	System prepared for work	System experience and evaluation	Experiment Reports
3	System Installation	System Training	System for work, team	Providing training	Training documents and trained participants
4	Delivery & Operation	Operation & Maintenance	System prepared for work	System operation and maintenance	Operation & Maintenance Reports
4	Delivery & Operation	Knowledge transfer	Project Documents & Training	Providing knowledge transfer sessions	Knowledge Transfer Reports
4	Delivery & Operation	Evaluation and follow-up	Process Reports	Evaluate performance and identify opportunities for improvement	Evaluation and follow-up reports
5	Final shutdown	Final Report	All previous documents and reports	Compilation and analysis of information and writing of the final report	Final Project Report
5	Final shutdown	Exit and move	Final Report	Conclusion of the project and transfer of roles and responsibilities	Confirmation of the official closure of the project

Roadmap



7. Risk Management Plan for a Project

A risk management plan plays a crucial role in the success of a project. This plan aims to identify and evaluate potential risks that may affect the implementation of the project and the achievement of its objectives. By analyzing risks and developing strategies to deal with them, the potential negative impact is reduced and the chances of success increase. Thanks to this plan, the client's ability to make strategic decisions based on detailed knowledge of risks and implement precautionary measures to avoid potential problems is enhanced.

Risk Management Strategy

Risk management strategy is the process that aims to identify, evaluate and address risks in a project. It aims to minimize the negative impact of risk and increase the chances of success. The strategy promotes coordination and making the right decisions to deal with potential risks. Contribute to achieving the objectives of the project efficiently and effectively and achieving a balance between risks and potential rewards, a standard list will be relied on to implement the strategy, which is the most suitable for the needs of the project, this list is (TECOP), the following is an explanation of this list:

1. Technical Factor:
It focuses on risks related to technology, infrastructure and technical solutions.
Examples of risks: technical incompatibility between different systems, hardware or software failures, delays in the delivery of the requested technology.
2. Environmental factor :
It focuses on the risks related to environmental factors and environmental impacts of the project.
Examples of hazards: changes in the natural environment (e.g. climate change), negative environmental impacts on the required infrastructure.
3. Commercial:

It focuses on risks related to the financial and commercial aspects of the project.

Examples of risk: changes in the market or demand for the product or service, unexpected costs or overbudgeting.

4. Operational:

It focuses on risks related to the day-to-day operations and operations of the project.

Examples of risks: operation error, power or internet outages, lack of critical human resources.

5. Political factor:

Focuses on risks related to political factors and legislation.

Examples of risks: changes in government policies, changes in legal legislation, impact of political instability.

Roles and Responsibilities

By assigning previous roles and responsibilities, the project team can effectively implement the risk management plan and ensure the success of the project. This includes:

- Project Manager:
 - Provide leadership support to the risk management team and set strategic goals and directions for the project.
 - Allocate the necessary resources and direct the team's risk management efforts.
- Quality Assurance Engineer:
 - Implement audits and audits to ensure that the risk management plan is properly and effectively implemented.
 - Provide recommendations to improve risk management performance and compliance with quality requirements.
- Product Technical Director:
 - Analyze potential technical risks and direct efforts to deal with them in effective technical ways.
 - Review risk response strategies related to the development and operation of the system.
- Software Engineer:
 - Analyze the impact of risks on software development and identify appropriate technical solutions.
 - Direct the efforts of the development team to implement appropriate mitigation and monitoring measures.
- Business Analyst:
 - Analyze the commercial and financial impact of risks, direct efforts to deal with them, and provide advice and guidance.
 - Collaborate with team members to identify and classify high-priority risks.
- Project Coordinators:

- Provide periodic updates on risks and response strategies to stakeholders.
- Facilitate communication between team members and external parties for information exchange and coordination.

Client Team

1. Identification of potential risks: Contribute to the identification of risks that have an impact on the objectives of the project and the interest of the client.
2. Impact Assessment: Assess the impact of potential risks on client activities and services and prioritize based on importance and impact criteria.
3. Participate in planning and analysis sessions: Collaborate with the risk management team in developing appropriate response strategies and mitigation actions.
4. Communication and coordination: Continuous communication with the risk management team to exchange information, potential risk updates, and response strategies.
5. Review and approve plans: Review and evaluate risk management plans submitted by the risk management team and approve them based on meeting the client's requirements.
6. Contribute to decision-making: Participate in making decisions related to key risks and response strategies and guide the team to achieve project objectives.

Stages of risk management in the project

The following table shows the stages of work with the risks related to the project:

figure	Main stage	Sub-stage	Input	Output	Observations
1	Project Launch	Charter Development	Objective of the project, available resources and activation of the service	Setting goals and resources	Project Charter
1	Risk identification	Project Plan	List of possible risks	Risk Management Team	The beginning of the project
2	Impact assessment	List of possible risks	Risk classification and prioritization	Risk Management Team	After identifying the risks
3	Developing response strategies	Classification of risks and priorities	Risk Response Plan and Strategies	Risk Management Team	After impact assessment
4	Strategy Implementation	Risk Response Plan	Implementation of agreed strategies and actions	Risk Management Team	During the project
5	Risk Monitoring and Review	Risk Management Reports	Assess the effectiveness of strategies and update the risk register	Risk Management Team	Throughout the project
6	Continuous Improvement	Risk Management Reports	Improve procedures and policies based on lessons learned	Risk Management Team	Throughout the project
7	Communication and collaboration	Risk Management Reports	Risk updates and collaboration with staff	Risk Management Team & Team	Throughout the project

8. Risk Register - for a project

The risk register is a tool used in project management to document and analyze potential risks that may affect the achievement of project objectives. The risk register aims to enhance risk awareness and identify appropriate response strategies to deal with them, thus contributing to the success of the project and minimizing potential negative impacts.

Below is a sample record and a review of some of the risks that will be studied in detail at the beginning of the project and monitored periodically to ensure that negative risks are minimized and positive opportunities are enhanced.

figure	Name of risk	description	Administrator	Probability	Impact	Strategy
1	Network service interruption	Network service outages affecting proper reception of alerts and text messages	Networking Team	Loss of communication between users and the system	The beginning of the project	Implement the contingency plan and switch to a standby service
2	Lack of technical updates	Lack of necessary technical updates may lead to security vulnerabilities and data loss	IT Team	Data loss or system breach	After identifying the risks	Implement update management policy and scan vulnerabilities periodically
3	Lack of awareness and training	Lack of awareness and training on using the system, alerts and text messages	Training and Education Section	Lack of full utilization of the system and its impact on the effectiveness of the project	After impact assessment	Provide ongoing training materials and workshops to improve awareness and training

9. Project Quality Management Plan

A quality management plan for a project that defines specific policies, procedures, and quality objectives for a particular project. This plan serves as a guiding tool for the team to ensure that all project work and results meet agreed standards.

For the project, the quality management plan will ensure the provision of high quality and reliable services to all users, and this includes providing timely and accurate text messages to improve the services provided to citizens.

The importance of a quality plan

The importance of quality management in the project is represented in:

- Define Quality Standards: A quality management plan defines the quality standards required for the project, ensuring that all parties involved have a compliant understanding of the requirements.
- Consistent Quality Assurance: A quality plan provides guidance to the team on how to do their work to ensure that high-quality results are delivered consistently.
- Continuous improvement: Through performance monitoring and periodic review, a quality plan can guide the team towards continuous improvement.

- Increase customer satisfaction: Adherence to the quality management plan ensures the delivery of results that satisfy customers, thus increasing their satisfaction and confidence in the project.
- Reduce errors and costs: Effective quality management reduces errors and defects, which in turn reduces costs associated with rework or corrections.
- Clear communication: A quality plan provides clear and specific guidance to the team, reducing differences and misinterpretations and improving communication within the team.
- Guidance for Quality Assurance and Control Activities: The Quality Plan guides activities for quality assurance (focused on the work process) and quality control (focused on the final output).

Project Quality Management Team

The following are the roles and responsibilities of the two working groups:

Contractor (Technics):

- Project Manager:
 - Ensures that all quality processes are carried out in accordance with the specified standards.
 - Participates in checking the quality of work and receiving results.
 - He reviews the quality plan and decides on the necessary changes.
- Quality Assurance Engineer:
 - Evaluates and audits the standards and procedures used in the project.
 - Conducts quality checks and prepares reports.
 - Investigates quality-related problems and proposes solutions.
- Product Technical Director:
 - Ensures that the product meets technical standards and quality requirements.
 - Reviews technical processes and software to ensure quality.
- Software Engineer:
 - It works on software development based on specific quality standards.
 - It checks and verifies codes to ensure quality.
- Business Analyst:
 - Ensures that business requirements are properly listed and assesses the impact on quality.
 - Works in collaboration with the quality team to achieve the required standards.
- Project Coordinators:
 - They work in collaboration with the quality team to verify the quality and implement the processes according to the quality plan.

Client Team:



- Program Director:
 - Review and approve the quality plan.
 - Monitors quality and reviews reports.
- Client Team:
 - They provide input and responses to the quality plan.
 - They participate in the quality review and accept the final work.

Procedures for preparing a quality plan

The procedures for preparing and building a quality plan in the project can be clarified as follows:

- Define quality requirements: The project manager and the program manager work together to determine the quality requirements of the project.
- Required Quality Analysis: The Quality Assurance Engineer analyzes the requirements and determines the standards and tools needed to ensure quality.
- Develop procedures and tools: The product technical manager and software engineer develop procedures and tools that will be used to ensure quality.
- Review requirements and standards: A business analyst reviews requirements and standards to ensure they are realistic and implementable.
- Preparation of a quality plan: The project manager, with the help of project coordinators, collects all the information into the quality plan.
- Plan Review and approval: The program manager and client team review the plan and give final approval.

Assumptions of the quality management plan of the project for the client:

- Compliance with specifications and standards: The client must be committed to the specifications and standards that have been set for the project from the beginning.
- Availability of resources: It is assumed that there is sufficient availability of human, financial and technical resources to implement the project and achieve the set objectives.
- Availability of technology and infrastructure: There must be the availability of technology and infrastructure necessary for the successful implementation of the project.
- Commitment to schedules: The client must adhere to the timelines set for the project which include delivery dates and subtasks.
- Collaboration: It is assumed that there is effective cooperation between the client and the project team, including periodic communication and providing feedback and guidance.

- Information and Documentation: All relevant information and documentation must be available, reliable and up-to-date.
- Evaluation and monitoring: It is assumed that the client will regularly evaluate the performance of the project and will participate in monitoring and evaluation processes.
- Commitment to budget: The client must adhere to the budget allocated for the project and provide the necessary funding.
- Potential changes: It is assumed that the client can make changes or modifications to the scope of the project, and expects these changes to be handled effectively.
- Commitment to the principles of quality management: The customer must adhere to the principles of quality management and continuous improvement.
- Responding to strategic and tactical needs: The project assumes that the project meets the strategic and tactical needs of the client and contributes to the achievement of its objectives.

Parameters

Here are the determinants of the project quality management plan for the client:

- Determine the quality standards necessary for the system according to the customer's requirements.
- Security and privacy: The quality management project must follow strict security measures to protect personal data and ensure the confidentiality of information sent via WhatsApp.
- System stability: The WhatsApp system must be designed and operated in a way that ensures its stability and availability around the clock to avoid service interruptions and message delivery delays.
- Excellent performance: The messaging system should have excellent performance and fast delivery of messages without delay.
- Message quality: The quality of sent messages should be verified, including making sure they are delivered correctly and without errors.
- Technical support available: High-quality technical support should be provided to users to resolve any issues or queries that may arise while using the service.
- Compliance with regulations and standards: The WhatsApp project has to comply with strict regulations and standards related to the telecommunications and privacy sector.
- Continuous testing and review: A quality management project should include periodic testing and review of the system to verify its performance and find any potential issues.
- Direction and leadership: The WhatsApp project should have effective guidance and leadership by the quality management team to ensure that the set quality objectives are met.

- Performance Monitoring: The quality management project should carry out continuous monitoring of system performance and measure the performance of WhatsApp according to the specified quality indicators.
- Continuous improvement: The quality management project should always strive to improve processes and increase the quality of service provided.

Procedures for changing the quality of the project

Here are the procedures for dealing with any change in the timeline in the project:

figure	Procedure	Significance	Administrator	Output	Observations
1	Identify the proposed change	Understand the potential impact of the change on the schedule	Techniques	Documenting the proposed change	Identify activities that will be affected by change
2	Assessment of potential impacts	Measure how the change affects your current schedule	Client	Impact Assessment Report	Other affected activities should be taken into account
3	Review the schedule	Determine if the current schedule is able to accommodate the change	Techniques	Review the report	Maybe it's necessary to update the timeline
4	Adoption of change	Final decision on the proposed change	Client	Decision Document	The decision must be made after considering all factors
5	Update timeline	Make changes to the schedule and ensure that all relevant parties are aware of the change	Techniques	Updated timeline	All relevant parties should be aware of the changes
6	Follow-up and monitoring of the new schedule	Ensure that changes are complemented according to the new plan and schedule	Techniques & Client	Monitoring and follow-up reports	The project schedule should be monitored periodically
7	Performance appraisal after change	Analyze the effectiveness of change and the actual impact on the schedule	Client	Performance Appraisal Report	All changes must be taken into account when evaluating performance
8	Reporting progress and results	Disclosure of the impact of changes on the timeline of all project parties	Techniques	Progress Report	Regular reporting helps maintain transparency and control of the project

Quality Reports

The project management is committed to an integrated set of reports that ensure the success of the project at the level of operations and service together, the most important of these reports

- Service Level Report (SLA Report): Measures the implementation of managed services based on specific criteria such as performance and SLA .
- Process Monitoring Report: Shows the effectiveness of current processes and displays performance criteria and key performance indicators (KPIs) to measure process performance.

- **Quality Review Report:** Provides a comprehensive assessment of service quality and processes and identifies opportunities for improvement, including audit notes and recommendations for improvement.
- **Customer Satisfaction Report:** Measures the level of customer satisfaction with the services provided and helps identify areas that can be improved to better meet customer needs.
- **Issue Analysis Report:** Analyzes errors and problems that may arise during the provision of services and provides recommendations for addressing and avoiding them in the future.
- **Internal Audit Report:** Assesses the extent to which approved practices and procedures are applied to ensure quality and compliance with standards.
- **Performance Analysis Report:** Measures the performance of a project based on
- **Quality Control Report:** Shows the extent to which managed services meet specific quality requirements and performance standards.
- **Process Improvement Report:** Provides an analysis of current processes and provides recommendations for improving them and achieving better efficiency and effectiveness.
- **Performance Measurement Report:** Provides quantitative and qualitative measurements of the performance of managed services, such as time spent providing services and the percentage of errors and problems.
- **Quality Assurance Report:** Processes and practices are evaluated to verify compliance with specific standards and procedures and recommendations for improvement.
- **Improvement Follow-up Report:** Provides an assessment of the implementation of recommendations applied to improve quality and track the progress of required improvements.
- **Management Summary Report:** Key information about service quality and operations is summarized in a concise and understandable form for senior management.
- **External Audit Report:** The quality of service and processes is evaluated by an independent third party to ensure compliance with industry standards and specific requirements.

Reporting Timeline

The timeline mentioned below is a general estimate and can be adjusted according to the nature of the project and specific needs. The frequency of reporting should be determined according to the requirements and project schedule to reach the best organization and quality management.



figure	Report Type	Schedule
1	Service Level Report	Per month
2	Operations Follow-up Report	Per month
3	Quality Review Report	Every 3-6 months as needed
4	Customer Satisfaction Report	Quarterly
5	Error and Issue Analysis Report	As needed
6	Internal Audit Report	Annually
7	Performance Analysis Report	Per month
8	Quality Control Report	Per month
9	Process Improvement Report	As needed
10	Performance Measurement Report	Per month
11	Quality Verification Report	As needed
12	Improvement Follow-up Report	As needed
13	Management Summary Report	Per month
14	External Audit Report	Annually

10. Development Services Management Plan

Development Services Management Plan To determine the strategy and procedures to be followed to implement and manage the development services of the project. The plan aims to achieve the objectives of the systematic development of the product and technical service and ensure the provision of high-quality services at all stages of operation to ensure the achievement of the operational and strategic objectives of the customer in terms of building an integrated relationship with the public and the end beneficiary..

Importance and objectives

The importance of having this plan for the project in the form of points:

1. Directing the development process: The plan helps guide the development team and determine the goals, tasks and expected outputs for each stage of development.
2. Organization and coordination of efforts: The plan acts as a reference document to organize and coordinate the team's efforts, defining responsibilities and timelines to ensure smooth implementation according to the plan.
3. Delivery Quality Assurance: The plan provides a framework for ensuring the quality of delivery of development services, by defining quality standards and testing, verification and evaluation procedures.
4. Risk Management: The plan helps in identifying and assessing potential risks, identifying strategies to deal with them, and minimizing their impact on the development process.
5. Monitoring progress: The plan facilitates the monitoring of development progress and the achievement of set goals, and provides a mechanism for evaluating performance and taking corrective action if necessary.

Scope of the plan

The plan seeks to include all components of the processes and outputs of product and service development for all stakeholders, in a way that meets the requirements of each stakeholder and contributes to creating a real partnership between stakeholders from various teams inside and outside the customer, and this plan covers the following aspects in the development of this integrated solution:

- Introducing the application (system)
- System Components
- User Interfaces
- Technical application characteristics
 - Programming languages used
 - Databases
 - Operating Systems
 - Closed source
- Stages and methodologies of building the application (system)
- Quality Testing & Quality Assurance
- Software maintenance and update
- Application Process Support System
- Additional capabilities

Roles and Responsibilities

Regarding the development services management plan for the project between the client and Taqnyat, here are some of the roles and responsibilities that can be shared between the two parties:

The team from "Taqnyat" (the contractor):

- Project Manager: Managing the overall operations of the project and coordinating between the team and the client.
- Software Engineer/Developer: Develops and programs the alerts and text messages system and ensures the quality of the software.
- User Interface Designer: Designs and develops the user interface for the application of alerts and text messages.
- Database specialist: designs and manages the database necessary to operate the system.
- Information Security Specialist: Ensures the security of the system and protects data from external and internal threats.

Customer Team:

- Project Manager from the Client: Supervises the direction of the project and the identification of the client's needs and functional and technical requirements.
- Client Representative: Acts as an interface between the team of the company "Taqnyat" and the client to provide the necessary information and coordination between the two sides.
- System Requirements Specialist: Identifies and documents system requirements and ensures that they are met.
- Quality Testing Team: Performs quality tests and verifies that the system is working properly according to the requirements.
- Transformation and Transfer Manager: Successfully manages the transformation and transfer of the system from the development environment to the production environment.

Interfaces

The system provides user experience by providing the following features in the system user interface

1. The design of the user interface is simple and easy to use.
2. Organize and arrange content logically.
3. Clear user orientation and guidance in all parts of the system.
4. Use expressive icons, symbols and colors.
5. Improved interface interactivity and quick response.
6. Provide an easy and organized space for data entry.
7. Attractive and modern design.
8. Provide clear instructions and assistance to users.
9. Interface compatibility with different devices and web browsers.
10. Balance aesthetics, functionality and seamless user experience.

Technical application characteristics

1. Programming Language
PHP is a comprehensive technical solution in the Taqnyat Company (taqnyat.sa) program, it is easy to use and offers many advantages such as strength and flexibility, community support, integration with other technologies, and effective performance. Using PHP contributes to improving the user experience and achieving commercial success.
2. Databases

- MySQL : It is a popular and open source database management system. Used to store and manage data in web applications and provides tools to handle databases effectively.
3. Operating systems?
- XAMPP: An open-source, cross-platform application package that includes Apache , MySQL, PHP, and other tools. Used to set up and run on-premises web servers to develop and test web applications.
 - SMPP: Short Message Peer-to-Peer, a protocol used to send and receive short text (SMS) messages between a message center and mobile service providers. SMPP is the industry standard for communication between message centers and allows for seamless and reliable communication between senders and recipients.
 - Zend Optimizer: It is a tool to improve the performance of PHP applications and improve the speed of their implementation. They are used to improve and execute encrypted programs and enhance the performance of applications built in the PHP programming language. Zend Optimizer decodes and executes encrypted codes generated using Zend Encoder and Zend Guard.
4. Closed Source:
- It does not rely on open source, does not use open source in the program provides specialized technical support, higher quality and stability, information security, continuous updates, and compliance with standards. Improving development and providing security supports business goals. The right solution should be selected based on needs, budget, and support capacity.

Quality Testing & Quality Assurance

In integration with other quality plans that ensure the achievement of the target standards of the system and service, there is a set of tests in the development stage that ensure the source program (code) and its basic components and free of any defects and ensure that the system works according to the requirements of the service level and all other requirements, including these tests and examinations:

- Check how the code works:
 - This check is carried out after the completion of software development to verify the correctness and integrity of the code and the absence of unexpected errors or exceptions.
 - It is verified that the code works in the expected way and performs the specified tasks correctly.
- Checking systems for transmissions:

- This check is carried out to ensure the safety and effectiveness of the transmission system used in the software.
- It is verified that messages are sent correctly, in a timely manner and to the specified parties.
- It is ensured that there is a mechanism to deal with unexpected failures or responses.
- Check the speed and reception of messages:
 - This check is performed to verify the speed and efficiency of receiving messages by the program.
 - Message reception time is measured and evaluated and ensured that it is done quickly and effectively.
 - The ability of the software to handle high load of messages and maintain stable performance is ensured.
- Check reports on submissions:
 - This check is performed to verify the correctness and accuracy of reports related to submissions.
 - It is verified that the reports accurately reflect the status and results of submissions.
 - Ensure that the reports provide important information to analyze and evaluate the effectiveness of message campaigns and track performance.

Code Tests (Executive Program)

The programming team applies the following types of software testing:

- Unit Testing: In which each individual unit in the code is tested to ensure that it works as expected. Unit test frames such as JUnit, NUnit, and PHPUnit are used to perform this type of test.
- Integration Testing: In which the interaction of different code units is tested together to verify that they are dealing correctly when communicating and integrating together.
- System Testing: The entire system is tested as a single unit to verify that all components are working properly and interacting together correctly according to requirements.
- Performance Testing: The performance of an application or system is tested to verify that it responds effectively and manages various burdens efficiently.
- Security Testing: Code applications are tested to verify their resistance to security attacks and ensure information integrity and system protection.
- Regression Testing: In which modules or components are retested after modifications or updates have been made to ensure that new changes have not adversely affected existing functionality.

- Compatibility Testing: The application is tested on various environments, platforms and devices to verify their compatibility and operability correctly.

Stages of development

- Software solutions and digital applications are developed at Taqnyat using various methodologies: the traditional method (waterfall), the issuance methodology (Iterative), the cumulative methodology (Incremental) and finally the agile methodology (Agile) The project team chooses the appropriate methodology for the project according to the data of the product, the customer, the work environment and the labor market in the process of allocating each project to reach the optimal goals.
1. Review:
 - Requirements collection: Survey and documentation of software requirements by users and customers.
 - Requirements Analysis: Analyze and understand requirements to determine required functions and features.
 2. Design:
 - Prototype design: Create a software prototype that demonstrates the arrangement and flow of interfaces and key functions.
 - Database Design: Define the structure of the database, its tables and relationships.
 - User Interface Design: Attractive and user-friendly user interface design.
 - Business Design: Define business rules and flow of processes within the program.
 3. Development:
 - Programming: Writing code and implementing the required functions and features.
 - Unit testing: Test and validate the functionality of each module of software individually.
 - Integration of modules: Integration of different software modules to build the final software.
 4. Testing:
 - System testing: Test and validate the functionality of the software as a whole according to the requirements.
 - Performance testing: evaluate the performance of the program in different circumstances and improve it if necessary.

- Compatibility testing: Check the compatibility of the software with different platforms and systems.

5. Implementation:

- Software installation: Install the software on the target environment while ensuring the safety of the operation.
- System Configuration: Configure, configure, and organize the software according to project and customer requirements.

6. Operation:

- Training: Provide training to end users on how to use the software.
- Support and maintenance: Provide technical support and maintenance to solve problems and improve performance.

7. Training & Empowerment

- Knowledge Training and Transfer System: The company provides a comprehensive program to train users to use the application effectively and efficiently, and to provide the necessary knowledge to the customer to ensure its efficient use.
- Enablement: The company aims to enable the customer to use the application effectively, by providing the necessary tools and resources to achieve this.

Support, maintenance and sustainability: The

company provides continuous support to the customer, whether it is through technical support or customer service, to ensure that any problems or inquiries raised by the customer are resolved.

- Maintenance: The Company provides maintenance services for the application, including software updates and bug fixes, to maintain the stability and performance of the application on an ongoing basis in accordance with the specified performance standards.
- Service Level Assurance Agreement: The Company's commitment to providing quality service is documented in accordance with the performance standards specified in the Service Level Assurance Agreement, ensuring that the objectives are achieved and value is maximized for the customer.

1. Modernization and sustainability

- Software maintenance and update: This service includes the provision of maintenance and updates to ensure the continuity and improvement of the programs and applications of the Taqnyat program. This service includes several aspects:

- Bug fixes: Errors and problems that can arise in the software are handled and fixed to ensure the stability and integrity of the application.
- Security updates: Security updates are provided to protect software from potential threats and vulnerabilities, ensure the integrity of user data and protect the system.
- Add more features: Software can be improved and developed by adding new features that contribute to improving the user experience and increasing the efficiency of the system.
- Improvements: General improvements are introduced to software performance and application performance and responsiveness improvements, to improve the user experience and increase overall system efficiency.

Additional possibilities in the program:

1. Data Analysis and Artificial Intelligence: Allows data analysis and the use of artificial intelligence to understand patterns and predict future behaviors, contributing to improving business decisions, user experience, and operations.
2. Virtual and Augmented Reality Application Development: Includes creating virtual reality and augmented reality applications and experiences for mobile devices, tablets, and smart glasses, such as games, entertainment, education, and training.
3. Development of security and protection solutions: Focuses on developing secure software and applications by implementing security measures, encryption, penetration testing, and security updates to protect against cyber threats.
4. E-Commerce Solution Development: Includes the creation and development of e-stores, payment platforms, inventory management systems, and other e-commerce-related tools.
5. AI and Machine Learning Development: It aims to develop artificial intelligence and machine learning models for data analysis, decision-making, and behavior prediction, and represents an innovative field that provides great opportunities for technical development.

11. Change Management Plan

A change management plan in a project that aims to systematically and systematically regulate and govern the change process. The plan helps identify and assess the potential risks and impacts of changes on the project, ensures that control and approval processes are applied to changes, and effective coordination and communication among all stakeholders.

Roles and Responsibilities

Changes Committee

- Provide strategic support and leadership to the change management process.
- Determine the levels of change allowed and develop appropriate policies and procedures.
- Review and approve significant changes that exceed the allowable levels of change.
- Provide the necessary resources to implement significant changes.
- Monitor and follow up the implementation of changes and evaluate the results achieved.
- Take exceptional decisions in cases of emergency or unforeseen changes.
- Direct communication and communication between members and key stakeholders.
- Evaluate change performance and guide continuous improvement in the change process.
- Please note that these responsibilities and roles are very brief and may require additional details to delve into each individual responsibility.

Administrator:

- Defining a change strategy: Develop a comprehensive change management strategy in the program, including identifying change goals, potential risks, and resources required.
- Enhance alignment and communication: Enhance communication and alignment among all teams and parties involved in change, including internal departments, external partners, and beneficiaries.
- Monitor change implementation: Monitor the implementation of the change management plan, evaluate progress and achieve set goals, identify obstacles and take action to address them.
- Change Impact Assessment: Assess the impact of change on the program and verify that the desired benefits have been achieved and the impact on the process, resources and performance.
- Provide support and training: Provide support to change teams, including training, mentoring and advice to deal with challenges and achieve change goals.

Project Manager – Contractor

- Change Impact Analysis: Assess the impact of change on the project in terms of schedule, cost, resources, and other associated work.
- Develop a change management plan: Develop a comprehensive change management plan that includes steps, tasks, schedules and responsibilities.

- Team guidance and awareness: Guiding the team on the proposed changes and educating them about their importance and impact on the project.
- Stakeholder coordination: Communicate and coordinate with change stakeholders, including project teams, customers, suppliers, and other partners.
- Monitor change implementation: Monitor change implementation and verify team compliance with the change management plan, timelines, and set standards.
- Evaluation of the results of change: Evaluate the results achieved from the change and ensure that the desired goals are achieved according to the specified criteria.
- Provide support and guidance: Provide support and guidance to the team in implementing change, overcoming obstacles and solving potential problems.
- Documenting and Enhancing Learning: Documenting experiences and lessons learned from change management and promoting continuous learning in relation to improving the change management process in future projects.

Documents used in change management

1. Change Impact Analysis: Assess the impact of change on the project in terms of schedule, cost, resources, and other associated work.
2. Develop a change management plan: Develop a comprehensive change management plan that includes steps, tasks, schedules and responsibilities.
3. Team guidance and awareness: Guiding the team on the proposed changes and educating them about their importance and impact on the project.
4. Stakeholder coordination: Communicate and coordinate with change stakeholders, including project teams, customers, suppliers, and other partners.
5. Monitor change implementation: Monitor change implementation and verify team compliance with the change management plan, timelines, and set standards.
6. Evaluation of the results of change: Evaluate the results achieved from the change and ensure that the desired goals are achieved according to the specified criteria.
7. Provide support and guidance: Provide support and guidance to the team in implementing change, overcoming obstacles and solving potential problems.
8. Documenting and Enhancing Learning: Documenting experiences and lessons learned from change management and promoting continuous learning in relation to improving the change management process in future projects.

Change Powers

- Project Manager (Contractor): Implement and manage small changes in the scope of the project and make recommendations for major changes to the Changes Committee.
- Program Manager (Client): Approve and approve significant changes and direct the project manager in their implementation and ensure that the objectives of the program are achieved.

- Change Committee: Review and evaluate changes, make decisions on whether to approve or reject them, and provide strategic guidance and support.
- Other stakeholders: Provide input, consultation, assess the impact of changes on their business, and provide support and cooperation in implementing changes.

Change Actions

figure	Procedure	Administrator	Input	Output	Observations
1	Identify change	Project Management Team	Request a change	Change classification, level of change	Change is categorized and the level of change is determined based on its impact and significance according to the decision of the project management or the project steering committee.
2	Change Analysis	Analysis Team	Change classification	Impact analysis, cost estimation, risk identification	Change is analyzed to understand its impact on the project, estimate the cost and identify potential risks associated with it.
3	Review and approve the change	Change Committee	Change, risk, and cost analysis	Decision to approve or reject the change	The Change Committee reviews the change analysis, assesses risk and cost, and makes a decision to approve or reject the change.
4	Planning and implementing change	Change Implementation Team	Decision to approve the change	Implementation plan, implementation of change	The change implementation plan is developed and implemented based on the approval decision.
5	Monitoring and monitoring change	Change Management Team	Implementing change	Change Assessment, Implementation Monitoring	The implementation of the change is monitored, its impact is assessed, and the progress of implementation is monitored.
6	Close change	Project Management Team	Change Assessment, Implementation Monitoring	Close change	The change is closed after evaluating it and confirming the success of its implementation.

12. Knowledge Transfer Plan

The knowledge transfer plan aims to enhance and develop the client's experiences and improve its performance as a learning organization. Through this plan, efforts to transfer the knowledge and experience gained in the project are directed to the client's members and provide an educational and training environment that contributes to improving the level of knowledge and skills.

Components of a knowledge transfer plan

Components of a knowledge transfer plan include:

1. Define roles and responsibilities: Define who is responsible for knowledge transfer and define members' roles in the process.
2. Use of knowledge transfer tools: Provide effective tools such as meetings, workshops and electronic documentation for knowledge transfer and exchange of experiences.

3. Timing of meetings and meetings: Schedule meetings and meetings aimed at transferring knowledge and providing appropriate opportunities for learning and exchange.
4. The importance of the lessons learned record: Recording and documenting lessons and experiences learned from the project to ensure that the client benefits from them in the future.
5. Stages of knowledge transfer and storage: Determine the stages of transferring knowledge from the technical team to the customer and secure the storage of knowledge in the customer's own knowledge assets.
6. Technological tools for knowledge management and transfer: Identify technological tools used in the management and transfer of knowledge such as electronic systems and educational platforms.

Roles and Responsibilities

- Contractor Team (Taqnyat):
 - Project Manager:

Overall coordination of knowledge transfer and ensures effective implementation of the plan. Contributes to identifying training needs and providing the necessary support to the client team.
 - Project Experts (Product Manager, Software Engineer, Systems Analyst):

Provides the technical knowledge and expertise necessary for the client team. Participates in the training and mentoring of employees during the knowledge transfer process.
- Client Team:
 - Administrator

Organizes the transfer of knowledge to the interior and ensures the effective implementation of the plan. Collaborates with the contractor team to identify training needs and coordinate efforts.
 - Staff:

They participate in the knowledge transfer process by participating in workshops, trainings and assimilating the knowledge provided by the contractor team. They collaborate with the contractor's team to apply the knowledge gained in the course of daily work.

Tools and methods of knowledge transfer

Tools for knowledge transfer will be used in the project in general, namely:



1. Workshops and trainings: held to train employees on the necessary concepts and skills and exchange knowledge and experiences.
2. Meetings and meetings: used to discuss and clarify information, exchange experiences and identify employee needs in certain areas.
3. Educational documents and materials: used to document knowledge and distribute it to employees to benefit from it in daily work.
4. Continuous communication: includes continuous communication between the contractor team and the customer team to exchange information and follow up on the progress of knowledge transfer.
5. Internal social networks: contribute to facilitating communication and knowledge exchange between team members and provide a platform for continuous learning and interaction.
6. Please note that the choice of suitable tools depends on the nature of the project and the culture of the enterprise.

Record of lessons learned

Below is a sample record of lessons learned with the emphasis on the possibility of adjusting the model to the practical needs of the project and adding more columns if necessary, such as positive lessons learned and others.

figure	Lesson	Recommendations	Future applications	Administrator	Date
1	Identify change	Project Management Team	Request a change	Change classification, level of change	
1	Delay in delivery of essential materials	Ensure timely availability of materials and use trusted suppliers	Improved operations and procurement management	Project Manager	
2	Poor communication with the contractor team	Enhance periodic communication and use appropriate means of communication	Improve coordination and collaboration between teams	Project Manager	
3	Decrease in the quality of the finished product	Improve quality checks and control	Increased product audit and internal audit	Quality Assurance Engineer	

The use of technology in knowledge transfer and documentation

13. Contract Conversion Plan

The Transfer and Termination Plan outlines the steps and procedures to be followed to transfer services from the current contractor to the replacement and terminate the contract effectively and smoothly. This plan aims to ensure continuity of services and avoid any interruption or negative impact on existing operations.

The importance of the transfer plan and the termination of the contract

The importance of this plan can be summarized as follows:

1. Provide organization and structure: The plan helps in organizing the process and defining the specific steps and responsibilities associated with the transfer of services and termination of contract.
2. Continuity of services: The plan helps to ensure the continuity of services provided by the contractor and smooth transfer to the alternative without a negative impact on the current operations.
3. Knowledge Transfer: The plan includes steps to transfer knowledge from the contractor to the alternative entity, which contributes to understanding the current requirements and practices of the services to be transferred.
4. Advance planning: The success of the conversion process and the termination of the contract requires advance planning and good preparation, and this is what the plan provides by defining the tasks, deadlines and resources required.
5. Risk reduction: By developing a solid plan, identifying potential risks, and taking preventive measures, the plan can reduce risks related to the conversion of services and termination of contract.
6. Achieving efficiency and sustainability: The plan helps to achieve higher efficiency in the conversion process, the sustainability of the transferred services and the continuity of their sustainable provision to the alternative entity, which leads to the maximum benefit from the transferred services and improve the customer's performance.
7. Fiscal balance: A plan can help ensure that financial resources are used effectively and that the required financial balance is achieved in the transfer process and termination of the contract.
8. Facilitate the evaluation process: The plan can provide a framework for evaluating the conversion process, terminating the contract, and measuring the results achieved based on the specified criteria.
9. Providing transparency and accountability: The plan contributes to providing transparency and accountability in the transfer process and termination of the contract by documenting steps and decisions, defining responsibilities and periodic reports.
10. Achieve a smooth transition: With a solid plan and clear arrangements, the conversion and termination process can go smoothly and without major disruptions to the client's current operations.

Roles and responsibilities in the transfer and termination of the contract

The scope of the transfer, the end of the contract, and the specific project. The scope of services to be transferred may include:

1. Alerts and text message system: includes the transformation of infrastructure and applications used in managing the alerts system and sending text messages to beneficiaries at home and abroad with the customer.
2. Database management: involves the transformation of databases used in the alerts and text message system, including ensuring the continuity of storage and proper retrieval of data.
3. Sensing and monitoring applications: It may include the transformation of applications used for sensing and monitoring, such as environmental monitoring systems or early warning systems.
4. Delivery of the system and its responsibilities to the receiving party: includes transferring the responsibility of the transferred system and related services from the customer to the designated recipient. This requires proper documentation and direction of tasks and responsibilities and ensuring that the recipient understands the system and the associated requirements.
5. Related Documents: Includes the collection and documentation of all documents and documents related to the transfer process and termination of the contract. These documents can include existing contract contracts, evaluation and testing reports, technical documentation and any other relevant documentation. Requires the provision of clear and specific documentation containing the necessary information about the system and services transformed, including technical and functional details, performance standards and any other guidance documents.
6. Lessons learned: The customer learns from the experience of conversion and termination of the contract and draws lessons and recommendations learned. These lessons are documented and analyzed to identify good practices and improve future operations. Lessons learned can include identifying the problems and obstacles faced by the customer during the conversion process, and identifying appropriate solutions and recommendations to avoid them in the future.
7. Verification of the understanding of system operating requirements in accordance with the Service Service Agreement (SLA): This item includes ensuring that the recipient is able to accommodate and operate the converted system in accordance with the service requirements agreed upon in the Service Agreement (SLA). This includes ensuring compliance with specific performance standards, security measures and maintenance procedures needed.
8. Understanding the internal working mechanism OLA (Operational Level Agreement): This item indicates the need to understand and clarify the internal mechanism of the

OLA for the customer. An OLA is an internal agreement that defines responsibilities and cooperation between internal units to achieve the objectives of internal operations. Understanding OLA aims to ensure effective and smooth coordination between units, balance performance and improve internal cooperation

Roles and responsibilities in the process of transfer and termination of contract

The following is a table showing the roles and responsibilities of both the contractor and the customer in the conversion process and termination of the contract:

figure	Client roles and responsibilities
1	Define transfer requirements and contract termination
2	Provide the necessary resources for the conversion process
3	Follow up the progress of the transfer process and terminate the contract
4	Organization of coordination and evaluation meetings
5	Transfer of knowledge and experience from the contractor to the employees
6	Carry out the necessary tests and assessments
7	Monitoring and evaluation of service continuity after conversion

figure	Roles and responsibilities of the contractor
1	Providing conversion experts and consultants
2	Assessment of existing infrastructure
3	Risk analysis and coping strategies
4	Define the technical steps for transforming services
5	Provide training and instruction to client staff
6	Preparation of project documents and reports
7	Perform performance and stability tests
8	Provide technical support and necessary maintenance
Providing conversion experts and consultants	
Assessment of existing infrastructure	
Risk analysis and coping strategies	
Define the technical steps for transforming services	
Provide training and instruction to client staff	
Preparation of project documents and reports	
Perform performance and stability tests	
Provide technical support and necessary maintenance	

Transfer process and termination of contract

The following is a table showing the detailed steps for the transfer process and termination of the contract:

figure	Sub-procedures	Administrator	Input	Output	Goal
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1	Determine the technical and functional requirements of the services to be converted	Client	Specific service requirements	Documented transfer requirements	Define conversion requirements
2	Identify tasks, schedules, and resources required for the conversion process	Client	Documented transfer requirements	Authenticated Conversion Plan	Define a conversion plan
3	Organizing workshops and training to transfer knowledge from the contractor to the client's employees	Contractor & Customer	Authenticated Conversion Plan	Transferred knowledge and training documents	Knowledge transfer
4	Perform performance and stability tests to verify the safety and effectiveness of the new system	Client	Transferred knowledge and conversion requirements	Test and Evaluation Reports	Checking the performance of the system
5	Implementation of the conversion plan and transfer of services and resources from the contractor to the alternative	Contractor & Customer	Authenticated Conversion Plan	Transform services and resources	Achieve smooth and orderly transformation
6	Perform the necessary procedures to terminate the contract with the current contractor	Client	Contract	Contract Termination	Termination of the contract
7	Monitoring and evaluating the performance of the transferred services and following up on their continuity	Client	Performance and stability reports	Monitoring and Evaluation Reports	Achieving continuity of services
8	Conduct final closure procedures for the project and ensure that all activities are completed	Client	Monitoring and Evaluation Reports	Project Closure and Closure Reports	Successful completion of the project

Schedule for transfer and termination of contract

This stage requires a period of 3 months, including the following procedures, with the navigation that some procedures are parallel

figure	Procedure	Duration (week)
1	Requirements Analysis	1
2	Conversion planning	1
3	Final knowledge transfer	4
4	Test & Evaluation	1
5	Perform the conversion	4
6	Termination of the contract	1
7	Monitoring & Evaluation	1
8	Project Closure	1

14. Communication Management Plan

The communication plan explains how to organize and manage the communication process between all project members and different stakeholders. This plan aims to ensure the effective and effective exchange of information and knowledge among all parties involved in the project. The communication plan includes defining the roles and responsibilities of

project team members, the means of communication used, scheduling meetings and reports, and identifying target audiences for each type of communication. This effective communication aims to promote understanding and achieve good coordination between all parties involved and thus successfully achieve the objectives of the project..

Plan Engines

- Identify communication tools: Identify the tools and means you will use to exchange information and communicate in the project, such as email, personal meetings, instant messaging, and others.
- Schedule meetings and reports: Specify a schedule of meetings and progress reports that should be provided. This helps ensure that there is regular and coordinated communication between team members and stakeholders.
- Evaluation of communication effectiveness: The effectiveness of the communication plan should be evaluated regularly to ensure that the desired results are achieved. Surveys, performance appraisals, and information-sharing reviews can be used to assess how the communication plan is implemented and improved in the project.

Language

Arabic will be the main language of the project, with English being used when needed, especially in technical details, to ensure effective and successful communication.

Structuring the project by the client

In response to the client's requirement to follow the so-called "model governance" methodology during the project management process, which allows the client to follow up and monitor the contractor's performance and speed up the implementation and completion of requirements. Accordingly, the government entity (the customer) consists of:

- Steering Committee: It consists of the President and his deputies in the relevant authorities, which directs the program manager and makes key decisions that contribute to the achievement of this transformational program.
- Program Manager: The person responsible for managing the program and is the main representative of the client in project procedures, making administrative decisions and supervising technical decisions.
- Client Team: Composed of experts who provide support to the contractor's team in all aspects of the service. The team manages the level of service with the operating company and regularly evaluates its performance according to the evaluation requirements. The team deals with them to ensure that they participate in project activities and assist them in terminating or transferring the contract.

Communication Lines

A single formal point of contact will be relied upon between the project manager by the executing company (contractor) and the project manager by the client, but this does not prevent informal communication between the members of the two parties to ensure smooth, effective and simultaneous communication that ensures the achievement of the objectives.

Meetings

The contractor's commitment to continuous communication that ensures the highest levels of coordination and cooperation between the parties to the relationship (the contractor and the customer) in a manner that ensures the success of the project and ensures its progress within the required time and quality plans, through professional management of meetings as follows:

- Holding follow-up meetings and evaluating the performance and progress of the project on a regular basis.
- Determine the periodicity of meetings and agree on them with the concerned parties.
- Resolve issues identified during meetings with a record of outstanding issues and issues.
- Prepare a written record of the proceedings of the meetings.
- Signature of the minutes by all concerned parties.
- Attend the meetings of the committees supervising the project.
- View progress and progress reports in meetings.
- View future steps in the workflow.
- Listen and respond to comments and inquiries from members of supervisory committees.
- Document the content of meetings and decisions taken in written records.
- Implement the directives and decisions issued by the committees supervising the project.

Reports

Project reports play a crucial role in ensuring its success and effective operation. They provide up-to-date information on work progress, timelines, and percentage completion, helping identify problems and make the right decisions at the right time. In addition, detailed reports detect late and SLA-related work, provide analysis of the causes of problems and provide opportunities for development and improvement in project performance. In general, reports are an essential tool for communication and coordination between all

parties to the project, and contribute to achieving high coordination and ensuring the achievement of The objectives set in the project.

The following table reviews the reports in the project in detail:

figure	Report Name	Periodicity of the issuance of the report	Significance	Report Type
1	Weekly Progress Report	weekly	Monitor work progress on a weekly basis to maintain schedules and performance	Work progress, timelines and completion rate
2	Monthly Progress Report	monthly	Review project progress throughout the month and identify trends and improvements	Work progress, timelines and completion rate
3	Quarterly Progress Report	Quarterly	Evaluate project progress over the quarterly period and take improvement actions	Work progress, timelines and completion rate
4	Quality Report	As needed	Ensure output quality, adherence to standards and take improvement actions	Output quality review and compliance with standards
5	Risk Report	As needed	Identify and address risks to the project and ensure business continuity	Analyze risks and propose actions to manage them
6	Meetings Report	As needed	Documenting the results of meetings and following up on the team's commitment to the decisions taken	Summary of the results of the meetings and decisions taken
7	Project Implementation and Operation Percentage Report	As needed	Follow up the percentage of project implementation and operation in accordance with service agreements	Monitor project implementation and evaluate its performance in accordance with service standards
8	Development and Improvement Opportunities Report	As needed	Illustrates opportunities for development and improvement in the performance of digital route services	Improve the performance of digital services and identify opportunities for innovation and improvement

Escalation roles

Escalation in project management refers to the process in which a higher issue or issue is shifted into the leadership structure to obtain the required decisions or guidance. Here we can consider the roles and responsibilities of each team member in relation to the escalation procedure:

Project Manager: He is primarily responsible for dealing with problems that occur in the project. If the problem cannot be resolved, the project manager has to escalate to the next level, such as the program manager or the executive director.

Quality Assurance Engineer: Monitors quality and performance and identifies any quality issues. If the issues are outside his scope, he should contact the project manager to escalate.

Product Technical Manager: He has to escalate any technical or development issues that cannot be solved at the current level to the project manager.

Software Engineer: He or she must inform the technical manager or project manager of any technical issues encountered.

Business Analyst: Any issues or changes in requirements that may affect the scope of the project should be communicated to the project manager.

Project coordinators: They are required to provide periodic updates to the project manager and coordinate with the technical team.

For the client team:

Program Manager: Coordinates needs and expectations between the client and the team. He is required to direct issues that cannot be resolved at the current level to the customer's executive authority.

Client Team: Client team members should communicate with the program manager about any issues that arise during the project. If the problem cannot be resolved within the team, they should escalate to the program manager.

Escalation mechanisms The

process of escalation in project management involves transferring a problem or decision to the higher administrative or regulatory authority when the team is unable to solve it or make the decision itself. The escalation process involves specific steps that help maintain a clear and organized chain of decisions and responsibilities. Here are some basic steps:

1. Identify the issue or problem: The team has to identify the issue or problem that cannot be resolved. This may include technical difficulties, deadlines, financial issues or other complications.
2. Impact assessment and need for escalation: Before carrying out the escalation process, the team must assess the potential impact of the problem on the project, and determine whether to escalate.
3. Prepare the necessary documents and materials: The team must compile all necessary documents and materials documenting the problem and the expected impact, including the team's recommendations.
4. Communication with the right person or entity for escalation: The team must contact the right person or entity for escalation, this can be the technical director, program manager, or senior management.
5. Submit the issue or problem for escalation: The team must present the issue or problem in a clear and organized manner, providing all the necessary information to assist in decision-making.
6. Follow up on the decision and implement the necessary steps: After making the decision, the team should follow up on the decision made and implement any necessary steps based on that decision. This may include updating project plans, coordinating with other teams, or communicating with customers or suppliers.
6. Communication and updates: Once escalated, it is important that the team provides periodic updates to everyone involved, stating the actions taken and the resulting results. This should be done in an organized and consistent manner to avoid any misunderstandings or discrepancies in information.
7. Learning from experience: Once the problem is resolved, the team can analyze how to deal with the issue and learn from it to prevent future recurrence. This may include updating procedures or protocols, or future team training.

The goal of the escalation process is not only to solve the problem but also to maintain transparency and communication between all team members.

15. Documentation Management Plan

The documentation management plan outlines the procedures and practices related to the management and organization of documentation in the project. This plan aims to ensure that all information and documents relevant to the project are systematically and effectively documented.

Objectives of the Plan

The plan includes a set of objectives in the project, including:

1. Protection of sensitive information: The Documentation Management Plan provides the necessary procedures and measures to protect sensitive or confidential information related to the project from unauthorized access or manipulation.
2. Preservation of empirical knowledge: Lessons learned and empirical experiences are documented in the documentation management plan, which helps the project benefit from this knowledge in future projects.
3. Simplify processes: By identifying effective and appropriate documentation tools and methods, the process of collecting, organizing and documenting information can be simplified, resulting in increased efficiency and saving time and effort.
4. Decision Support: Documented documents and information can be used to support the decision-making process in the project, where reliable and up-to-date information is relied on in strategic and tactical decision-making.
5. Quality Compliance: The Documentation Management Plan ensures the availability of high-quality documents that comply with the quality standards set for the project, contributing to achieving the objectives and delivering the project with high quality.
6. In short, the Documentation Management Plan aims to ensure that information and documentation related to the project is organized, preserved and documented, and contributes to improved communication and collaboration.

Roles and Responsibilities

The following are the roles and responsibilities of the two teams, the contractor (Taqnyat) and the client in relation to the documentation management plan for the project:

Contractor Team (Techniques):

Project Manager:

- Develop and implement a documentation management plan for the project.
- Appoint and mentor team members responsible for managing documentation.
- Monitor the implementation of documentation management procedures and ensure compliance with standards and requirements.

Quality Assurance Engineer:

- Review and control the quality of documentation processes.
- Improvement and recommendations for documentation processes.

Product Technical Director:

- Define product documentation requirements and strategies.
- Notarized product documents and documents.

Software Engineer:

- Design and implement technological documentation tools.
- Technical support for documentation tools.

Business Analyst:

- Analyze documentation needs and define standards.
- Recommendations for improving documentation processes.

Project Coordinators:

- Assist in the coordination and organization of activities related to the management of documentation.

Client Team:

The client team has important roles and responsibilities in the documentation management plan Here is a breakdown of the responsibilities related to each job title in the team:

Administrator:

- Directing and coordinating the efforts of the documentation department in the project.
- Monitor and evaluate the implementation of the documentation management plan and ensure the achievement of the set objectives.

Client Team:

- Participate in the implementation of documentation management processes according to the specified plan.
- Follow up the documentation requirements and ensure that they are met at all stages of the project.
- Provide guidance and support to contractor teams regarding documentation management.

- Provide follow-up and evaluation reports on the implementation of the documentation management plan and recommendations for improvement.

Nomenclature and Numbering System

The naming and numbering system is a standard system for naming and numbering documents and documents in a project. It aims to provide a structure and organization of documents, facilitating the process of searching, retrieval and effective management of documents.

The importance of the system of labeling and numbering lies in the following points:

1. Standardization: Ensures a unified naming and numbering system for documents in the project, making them easier to understand and quickly located.
2. Easy search and retrieval: The client team can find documents easily and quickly by using labels and standard numbering. This saves time and effort in the search and retrieval process and increases efficiency.
3. Tracking and monitoring: The movement of documents and their location and status can be easily tracked using the labeling and numbering system. This helps monitor workflow and ensure compliance with customer requirements.

As for the need for a standard naming and numbering system for documents that complies with the requirements of the client, this system allows the standardization of methods and procedures in document management, and contributes to ensuring compliance with the quality requirements and standards approved by the client. It also increases the effectiveness of work and communication between different teams and maintains the integrity and confidentiality of information.

Responsibility for the naming and numbering system

The responsibility of the nomenclature and numbering system lies on both sides: the contractor (Taqnyat) and the customer.

- Contractor (Taqnyat): The contractor is responsible for creating and implementing a naming and numbering system that complies with the customer's requirements. The contractor should implement a uniform and standard system for naming and numbering documents related to the project, and ensure that the necessary documentation is available in accordance with the specified standards and requirements.
- Customer: The customer should verify that the nomenclature system proposed by the contractor meets its requirements and standards. The client can work to establish clear guidelines and policies regarding the naming and numbering system for the

project, and define the necessary standards and requirements to ensure effective and reliable documentation of documents.

- Cooperation between the contractor and the customer in the application of the labeling and numbering system to contribute to achieving the organization and effectiveness of document management and facilitate the use and retrieval of the required information.

Documentation Procedures

The following are the documentation procedures for the project and the responsibility of each party:

figure	Procedure	Administrator	Input	Output	Benefits
1	Define documentation and documentation requirements	Contractor Team & Client Team	Project requirements and applicable laws and regulations	List of documentation and documentation requirements	Clarify documentation requirements and document the project
2	Document hierarchy planning	Contractor Team	List of documentation and documentation requirements	Document structure and organization	Arrange, organize, and easily accessible documents
3	Implementation of documentation and audit procedures	Contractor Team	Document Structure and Documentary Standards	Notarized and audited documents	Document authenticity and quality assurance
4	Provide a document management system	Contractor Team	Notarized and audited documents	Document Management System and Associated Databases	Easy document retrieval and archive preservation
5	Verification & Review	Contractor Team & Client Team	Documents and electronic archive	Verification and Audit Reports	Ensure that the project adheres to documentation and quality policies

Electronic Document Management System

The contractor (Taqnyat) provides an electronic document management system to manage the project documents within the following features:

- Central storage of documents.
- Classify and name documents for organization.
- The ability to search and retrieve documents quickly.
- Manage access rights to define user permissions.
- Manage versions and versions to track changes.
- Maintain documents for a specific period of time.
- Collaborate and participate in the creation of documents simultaneously.

16. External Operations Management Plan Definition

Service Level Agreement (SLA) An overseas operations plan is a written agreement between

a service provider and a customer that specifies the expected level of service, the obligations of each party and the terms of service provision. SLA aims to ensure the availability, quality and performance of the service provided and to define the standard standards that the service provider must adhere to.

Objectives of the External Operations Plan

Points of importance of the Service Level Assurance Plan:

1. A clear definition of the service: The plan outlines the scope of the service provided and determines what is and what is not covered by the agreement, such as the quality of service, the scope of coverage, and the expected timeline for providing the service.
2. Service levels: Defines expected service levels and provides measurable benchmarks for service performance, such as expected response time, availability, and required level of performance.
3. Performance Guarantees: The plan outlines the guarantees provided by the service provider to ensure that it adheres to service levels, such as financial penalties for not meeting agreed performance standards.
4. Evaluation and reporting mechanisms: The plan outlines how performance is evaluated and reporting requirements on service performance, including key performance indicators (KPIs), response reports, and service availability.
5. Change Management: The plan provides a mechanism to manage potential changes in service requirements or customer goals. This includes:
 - Identify the procedures and processes that must be followed to submit the required changes, such as verification and approval procedures, implementation and testing of changes before applying them to the Service.
 - Identify mechanisms for documenting and distributing changes to stakeholders, including the client and the internal team.
 - Provide a plan to communicate with the customer and interested parties about the proposed changes and their potential impact on the service level.
 - Provide a mechanism to evaluate and monitor the impact of changes on service performance and ensure that it responds to customer requirements.
 - Provide a mechanism for continuous learning and improvement by providing reports and analysis on the implemented changes, assessing their impact and recommendations for improving the service.

Plan Engines

The motives for adopting this plan are many, the most important of which is the need for the contractor to abide by the service level agreement and the escalation mechanism approved by the competent authority by the customer.

External Operations Management Team (Service Level Assurance) in the project

The roles of each team can be summarized as follows:

Contractor Team (Taqnyat):

- Develop and implement a service level assurance plan according to customer requirements.
- Identify and implement service quality assurance and control procedures.
- Provide technical and knowledge expertise to provide the service as required in accordance with industrial standards and practices.
- Dealing with technical challenges and solving technical issues related to the service.
- Provide the customer with periodic reports and analysis on the performance and improvement of the service.
- Communicate and coordinate with the internal team to meet their needs and ensure their satisfaction.

Client Team:

- Define and clarify service requirements and determine the basic indicators of the performance of the desired service.
- Provide the necessary information and data to the contractor team to implement the service level assurance plan.
- Dealing with problems and inquiries related to the service and directing them to the contractor team for intervention and correction.
- Review and evaluate service performance and monitor compliance with service level assurance standards.
- Provide feedback and recommendations to improve service performance and ensure that customer needs are met.
- Effective communication with the contractor team to coordinate and ensure the continuity of service delivery satisfactorily in accordance with the requirements.

Contractor's Liability in the SLA

What is the responsibility of the contractor (Taqnia) in the External Operations Management and Service Level Assurance (SLA) plan?

- The role of the contractor (Taqnyat) in the internal external operations management plan is to provide the necessary services and technical support to implement and

manage WhatsApp and alert operations. This includes carrying out the following activities:

1. Provision of technical infrastructure: The contractor provides and configures the necessary infrastructure to operate the WhatsApp and alerts system. This includes providing, configuring, and testing the required hardware and software.
2. Software Development and Maintenance: The contractor develops and maintains the software necessary to operate the WhatsApp and alerts system. This includes designing and programming applications and software interfaces necessary to communicate with service providers and perform the required functions.
3. Ensure safety and sustainability: The contractor provides robust security measures to protect message and alert data and ensure system continuity. This includes implementing appropriate access procedures, identity verification, encryption, backup, and disaster preparedness.
4. Performance Monitoring and Reporting: The contractor monitors the performance of the WhatsApp system and alerts and generates the necessary reports. This includes performance monitoring, data analysis, and periodic reporting to the internal operations management team.
5. Provide technical support: The contractor provides the necessary technical support and training to the internal operations management team and system users. This includes providing support in solving technical issues, guiding users in using the system, training them on new functions and features, and responding to queries and problems related to the system.
6. The organization's contract with a technology contractor is important in the External Operations Management and Service Level Assurance (SLA) plan, as it contributes to ensuring the smooth and efficient operation of the WhatsApp and alerts system and meeting the customer's needs in terms of communications and communication with the public and customers.

Procedures for preparing the external operations plan (service level assurance) in the project

figure	Procedure	Administrator	Goal	Iteration
1	Requirements Analysis	Client Team	Identify service requirements and customer needs	At the beginning of the project
2	Risk Analysis	Client Team	Identify and assess potential risks	Regularly

3	Develop a problem response plan	Client Team	Develop a strategy to deal with problems and malfunctions	When needed
4	Develop an audit and audit plan	Client Team	Develop a system for evaluating and reviewing service performance	periodically
5	Define performance indicators and measure	Client Team	Identify indicators that measure service performance	periodically
6	Documentation of the Service Level Assurance Agreement	Client & Contractor Team	Documenting the contractor's obligations in providing the service	When needed
7	Identify performance monitoring and evaluation mechanisms	Client Team	Develop a system for monitoring and evaluating service performance	periodically
8	Provide training and development	Client & Contractor Team	Developing the capabilities of the work team to provide the service	periodically
9	Change Management	Client Team	Handle and apply changes effectively	When needed
10	Review and improve processes	Client & Contractor Team	Evaluate and improve the performance of operations to achieve the best level of service	periodically

Measuring SLA Performance – Reporting

Follow-up and monitoring of the service level requires a package of reports that cover aspects of the service and ensure that the project achieves its objectives and results, including:

figure	Report Name	Administrator	Iteration	Goal	Reviews
1	Report of overdue communications	Contractor (Technics)	daily	Track unresolved reports on time	They must be carefully monitored to avoid delays in services
2	Report of high-importance communications	Contractor (Technics)	daily	Tracking high-priority reports	May have a significant impact on the business
3	Report of problems and causes of occurrence	Contractor (Technics)	weekly	Analysis of the causes behind the current problems	Useful for improving performance in the future
4	Violations Report SLA	Contractor (Technics)	daily	Track cases where the SLA has been breached	To monitor compliance with service standards
5	Monthly Performance Report	Client	monthly	Evaluation of the monthly performance of the contractor	To monitor the level of performance and improvement
6	Service Satisfaction Report	Client	monthly	Measuring customer satisfaction with the service	Helps improve services and customer relationship
7	Trend Analysis Report	Contractor (Technics)	monthly	Identify patterns and trends in performance	Useful for forecasting and planning for the future
8	System Inspection Report	Contractor (Technics)	daily	Detecting technical issues in the system	To ensure the safety and security of the system
9	Emergency Response Report	Contractor (Technics)	As needed	Documenting the response to unusual events	For reference in future emergencies
10	Contract Review Report	Client	annual	Review overall performance and contract compliance	To verify compliance and identify improvements
11	Service Evaluation Report	Client	annual	Evaluation of the quality of services provided	To identify areas for improvement and change

Service Level Assurance

The contractor is bound by the service level agreement and escalation mechanism approved by the customer, the criteria of which are specified in the following table (Service Level Guarantee Table and escalation levels):

Priority levels

Priority	Response Time	Response objectives	Update time	Modernization goals	Time to solve the problem	Solution objectives
Critical	15 minutes	95%	minutes 30 Every	80%	hour 1	80%
*High Importance	1 hour	90%	hours 2 Every	80%	hours 4	80%
*Medium Importance	4 hours	80%	When the problem is solved	75%	hours 12	75%
Low Importance *	8 hours	75%	When the problem is solved	75%	hours 48	75%

* Represents business hours only – for example, the resolution will last within 8 hours for a high-priority incident reported at 12:30 p.m. ET on Tuesday until 12:30 p.m. on Wednesday

- Response Time: The initial period in which Taqnyat SME will be assigned to the incident
- Update time: The period during which you will introduce progress update technologies to the customer
- Solution time: The period in which techniques will solve the problem.
- Call priority techniques will build on the following factors: the importance and impact of the issue, and the number of users affected.
- Customer Service Center and support are available 24/7 for all critical, high-importance, medium and even regular levels.

Escalation mechanism

The contractor must comply with the SLA and the escalation mechanism approved by the customer in the project (Service Level Guarantee Table and escalation levels). Here are some possible actions in escalation management in this project:

1. Define escalation level: Multiple levels of escalation must be defined in the SLA. This may include escalation internally within the team or escalation to a third party such as the customer.
2. Assign responsibilities: Responsibilities must be assigned to each level of escalation. A person responsible for following up and managing the escalation process should



be identified and ensure that appropriate actions are implemented in a timely manner.

3. Define timelines: Timelines for each level of escalation should be defined, including the time it takes to initial response, investigation, and problem resolution. This aims to ensure timely implementation of procedures and achieve customer satisfaction.
4. Problem Documentation and Assessment: All details related to the problem must be documented and evaluated specifically and reliably. The description of the problem, the timing of its occurrence, and its impact on the alerts and text message system must be recorded.
5. Communication and reporting: Appropriate channels of communication and reporting in the event of escalation should be identified. Effective and informational means of communication should be provided to ensure smooth communication between the contractor and the customer, in order to exchange information and updates related to the escalation situation and provide solutions.
6. Take action to improve: After the issue is resolved, action should be taken to improve the process of the alerts and text messaging system. This includes analyzing the cause of the problem, implementing actions to prevent it from occurring in the future, and improving the overall performance and quality of service.

Keep in mind that these actions may require additional customizations and actions specific to the project with the client. These procedures must comply with the requirements and standards followed by the client and ensure the provision of high quality service and meet the needs of the project.

Service management, support and escalation of matters

Technologies communication channels available:

The infrastructure and services specified in this technical presentation will be supported around the clock, seven days a week and all year round (24 hours a day, 7 days a week, 365 days a year).

It provides technical support through various channels to answer queries about specific technical information:

- Ticketing system: Existing customers can submit tickets and get answers on the same portal.
- Email: The customer can send an email directly to the technical support department support@taqnyat.sa and it will be answered quickly.
- The chat system available on the main website of the <https://www.taqnyat.sa/> technologies website



- 920015404 Hotline

Technical issues

Level	Job Title	Contact Information
Level 1	All available communication channels	"Communication channels available technologies" section
Level 2	Director of Technical Support Department	supportop@taqnyat.sa
Level 3	Escalation Manager	d.alqwasmi@taqnyat.sa

Non-technical issues

Name	Job Title	E-mail Address	Contact Information
Ahmed Ismail	Sales Supervisor	a.ismaeil@taqnyat.sa	+966 55 821 1125
Ahmad Mohammad	Account Manager	a.mohammed@taqnyat.sa	+966 55 937 9471

Cybersecurity

Level	Job Title	Contact Information
Level 1	All available communication channels	"Communication channels available technologies" section
Level 2	Director of Cyber Security Department	soc@taqnyat.sa
Level 3	Escalation Manager	d.alqwasmi@taqnyat.sa

17. Internal Operations Management Plan

Internal Operations Plan (OLA) to define common internal responsibilities, tasks and processes that must be implemented to achieve project objectives and provide high-quality services to clients or interested parties.

The Internal Operations Plan (OLA) in this project for customer alerts and text messaging system services is the approved agreement for defining responsibilities and internal processes between project teams and the client. This plan aims to ensure the implementation of managed services in an integrated and organized manner, and to ensure a high level of quality and performance in service delivery.

Objectives

The number of objectives in this plan depends on the scope and complexity of the project and the requirements of the managed services involved. Objectives could include:

1. Providing alerts and text message services continuously and effectively.

2. Ensure a quick and effective response to any problems or requests related to the Services.
3. Define responsibilities and powers for each internal team and client team to ensure smooth execution of operations.
4. Define performance standards and KPIs to measure service quality.
5. Provide mechanisms for communication and coordination between the various teams to achieve effective coordination in the provision of services.

Internal Operations Management (OLA) team on the project

Contractor The

roles and responsibilities of the Internal Operations Management (OLA) team by the contractor (Taqnyat) in the project can be summarized as follows:

1. The role of the contractor (Taqnyat) in the OLA internal operations management plan is to provide the necessary services and technical support to implement and manage WhatsApp and alert operations. This includes performing the following activities:
 - a. Provision of technical infrastructure: The contractor provides and configures the necessary infrastructure to operate the WhatsApp and alerts system. This includes providing, configuring, and testing the required hardware and software.
 - b. Software Development and Maintenance: The contractor develops and maintains the software necessary to operate the WhatsApp and alerts system. This includes designing and programming applications and software interfaces necessary to communicate with service providers and perform the required functions.
 - c. Ensure safety and sustainability: The contractor provides robust security measures to protect message and alert data and ensure system continuity. This includes implementing appropriate access procedures, identity verification, encryption, backup, and disaster preparedness.
 - d. Performance Monitoring and Reporting: The contractor monitors the performance of the WhatsApp system and alerts and generates the necessary reports. This includes performance monitoring, data analysis, and periodic reporting to the internal operations management team.
 - e. Provide technical support: The contractor provides the necessary technical support and training to the internal operations management team and system users. This includes providing support in solving technical issues, guiding users in using the system, training them on new functions and features, and responding to queries and problems related to the system.
2. The customer's contract with a technology contractor is important in the OLA internal operations management plan, as it contributes to ensuring the smooth and efficient operation of the WhatsApp and alerts system and meeting the customer's communication needs in terms of communication and communication with the public and customers.

Client Team



The roles and responsibilities of the Internal Operations Management (OLA) team by the client team in the project can be summarized as follows:

1. Service Requirements Determination: Defines service requirements and standards required to meet the needs of beneficiaries and subscribers.
2. Provide guidance and guidance: Provides guidance and guidance to internal teams to ensure that services are implemented according to specified standards.
3. Performance monitoring: monitors and evaluates the performance of the services provided and follows up on the main performance indicators.
4. Directing external partnerships: Directs and directs external partnerships involved in the provision of managed services to ensure their compliance with requirements.
5. Coordination and collaboration with internal teams: Collaborates and coordinates with internal teams to ensure process alignment and seamless integration.
6. Developing work procedures: Contributes to the development and improvement of work procedures and the identification of optimal processes to achieve effectiveness and efficiency.
7. Problem Management and Exception Response: Manages emerging issues and takes measures to deal with exceptions and ensure continuity of service.
8. Process Evaluation and Improvement: Evaluates and analyzes internal processes, identifies opportunities for improvement, and implements necessary changes.
9. These responsibilities aim to ensure that internal processes are carried out effectively and that the objectives set for the project are achieved.

Client OLA Protocol

To ensure the implementation and success of internal processes for sending messages and alerts, it is necessary to develop an organizational protocol for internal party relations to organize and activate the management of system operations efficiently and effectively See Appendix 1 Components of an internal cooperation agreement and Appendix 2 Internal cooperation agreement

This protocol includes:

1. Assign responsibilities and roles: Assign a team responsible for implementing and managing message and alert submissions. Individual responsibilities should be clarified and roles and responsibilities required for each individual should be defined.
2. Process Documentation: Create detailed documents and protocols (internal cooperation agreement) that describe the steps and procedures required to perform message and alert transmissions. Processes must be clearly and understandably documented to ensure continuity and correct implementation.
3. Define benchmarks and metrics: Define specific performance metrics and metrics to measure the success of message and alert submissions. These can include metrics such as delivery time, delivery accuracy, recipient response rate, and others.

4. Training and Development: Provide appropriate training to the team responsible for message and alert transmissions. They must have the knowledge and skills to carry out tasks effectively and professionally.
5. Communication and coordination: Identify effective communication and coordination mechanisms between the different teams involved in message and alert transmissions. Channels must be selected
6. Communicate appropriately to share information and updates between teams and ensure coordination of joint efforts.
7. Review and evaluate performance: Conduct periodic reviews of the performance of message and alert submissions and evaluations. Performance reports and feedback received can be used to identify areas that can be improved and take action.
8. Data Quality Assurance: Ensure the quality and accuracy of the data used in the processes of sending messages and alerts. Implement procedures to validate and update data regularly.
9. Change management: Within a change management protocol that allows the required updates and modifications to be made in message transmissions and alerts. Procedures must be defined to evaluate and implement changes in a systematic and structured manner.
10. Performance monitoring and reporting: Implement a system to monitor and evaluate the performance of message and alert transmissions. Data should be collected and analyzed to provide periodic performance reports and guidance for process improvement.
11. In response to inquiries and complaints: within a mechanism to respond to inquiries and complaints related to the processes of sending messages and alerts. Inquiries and complaints must be dealt with quickly and effectively and necessary actions must be taken to resolve problems.

Procedures for preparing an internal operations plan (OLA) in the project

figure	Procedure	Administrator	Goal	Input	Output	Observations
1	Define requirements	Client	Identify customer needs and system requirements	Client Requirements, Questionnaires, Needs Analysis Meetings	Requirements documents, list of key requirements	Includes identification of functions, required performance and integration with existing systems
2	System Design	Contractor (Technics)	Define the design of the technical system and infrastructure	Client Requirements, Technical Design, Needs Analysis	System Design Document, Implementation Plan	Includes the identification of system components and technological credits

3	System Development and Testing	Contractor (Technics)	Develop and test the system according to the specified design	System Design Document, Implementation Plan, Development Environment	Stable system conforming to specifications and its functional components	Includes system installation, testing and debugging
4	System operation	Contractor (Technics)	Operating the system and monitoring its performance	Stable system and its functional components	Properly functioning system and regular performance reports	Maintenance routine includes
5	System Maintenance	Contractor (Technics)	Ensure the continuity and performance of the system in a sustainable manner	Performance reports, maintenance requests, technical issues	Properly functioning system, improvements and fixes implemented	Includes bug fixes, software updates and ongoing development
6	Communication and coordination	Customer & Contractor (Taqnyat)	Ensure effective communication and coordination between the two teams	Progress meetings, performance reports, support requests	Specific agreements, project updates, problem solutions	Includes discussion of updates, new directions and information sharing
7	Performance Appraisal	Customer & Contractor (Taqnyat)	Evaluate system performance and meet requirements	Performance reports, customer requirements	Performance appraisal and improvement reports	Includes system efficiency assessment and continuous improvement
8	Legal & Contractual Solutions	Customer & Contractor (Taqnyat)	Ensure compliance with laws and contractual agreements	Legislation and contractual agreements	Compliance with laws and contractual agreements	Includes legislative updates and meeting the requirements of the Convention

Criteria and objectives

The following is a set of key indicators (KPIs) that can be used to evaluate the performance of OLA internal processes, measure their effectiveness and efficiency, and evaluate the system and team performance. The results can be presented in the form of the following table:

figure	Main Indicator (KPI)	description	Goal	Performance Measurement Unit	Analysis and observations
1	Message delivery rate	Percentage of successfully delivered messages to recipients	TBD	Percent	The reasons why messages are not delivered can be analyzed and actions taken to improve their delivery.
2	Average delivery time	The average time between sending the message and delivering it to the recipient	TBD	Minutes	The time spent on message delivery is measured and analyzed to improve delivery speed.
3	Team response rate	Actual response rate of the team to problems, inquiries and requests	TBD	Percent	The team's actual response is evaluated and action is taken to improve response time and response quality.
4	Average team response time	The average time period between receipt of the inquiry and the team's response to it	TBD	Hours	The time spent on a team's response is measured and analyzed and actions are taken to improve the speed of response.
5	Error rate	Percentage of errors and problems in message and alert operations	TBD	Percent	Errors and problems are analyzed, their causes are identified and actions are taken to reduce the occurrence of errors

Internal Operations Management (OLA) reports

Reports are one of the key elements in managing the customer's internal processes, as they contribute to organizing and activating work and achieving the best performance that serves end users and the public. Here are some examples of such reports:

1. Performance Appraisal Reports: These reports are a valuable tool for evaluating the performance of internal processes and measuring them against the specified standards,
2. Message delivery report:
 - Responsible: The internal operations team or communications team.
 - Appropriate time for release: Released periodically, such as monthly or weekly.
 - Notes: Message delivery is successfully analyzed, reasons for non-delivery are identified, if any, and actions are taken to improve delivery rate.
3. Delivery Time Report:
 - Responsible: The internal operations team or communications team.
 - Appropriate time for release: Released periodically, such as monthly or weekly.
 - Notes: The average delivery time is analyzed, areas that need to improve speed are found out and the necessary measures are taken.
4. Panel Response Report:
 - Administrator: Technical support team or customer service team.
 - Appropriate time for release: Released periodically, such as monthly or weekly.
 - Notes: The team's response rate to problems, queries and requests is analyzed, and any areas that need improvement in response time and response quality are identified.
5. System Error Report:
 - Admin: The IT team or the operating team.
 - Appropriate time for release: Released periodically, such as monthly or weekly.
 - Notes: System errors and alert problems are analyzed and documented, categorized and the causes of their occurrence analyzed. Actions are taken to fix errors and improve system stability.
6. Performance Analysis Report:
 - Responsible: Internal operations team or senior management.
 - Proper time for release: Released periodically, such as monthly or quarterly.
 - Notes: The report summarizes the performance of internal processes and KPIs, and provides a comprehensive analysis of system strength and team performance. This report can be used to identify strengths and weaknesses and take action to improve operations.

18. Outstanding Case Management Plan

The outstanding issues management plan aims to identify and track issues of importance in the project and take action to deal with and resolve them effectively and promote continuous learning. The main objectives of the plan are: identifying issues, following up and tracking cases, assessing impact and taking action, communicating and coordinating, reporting and documenting, and promoting continuous learning.

Procedures for dealing with outstanding cases

figure	Procedure	Administrator	Input	Output
1	Identification of issues	Client Team	Performance reports, customer issues, feedback	List of specific issues
2	Registration of cases	Client Team	Case Registration Form, Issue Reports	Record of cases
3	Analysis of issues	Contractor Team	Cause Analysis, Impact Assessment	Issue Analysis Report
4	Take action	Contractor Team	Action Plan, Implementation Monitoring	Execution of procedures
5	Communication and coordination	Contractor Team + Client Team	Meetings, Contacts, Email	Communication and coordination record
6	Monitoring and evaluation	Contractor Team + Client Team	Follow-up reports, evaluation of results	Monitoring and Evaluation Report
7	Documentation & Reports	Contractor Team	Case Status Reports, Closure Report	Issue and closure reports

Electronic Outstanding Cases Management System

The contractor team (Taqnyat) will provide access to the client's project staff to the electronic outstanding case management system, and will train them to use it efficiently and effectively. This will help to deal with any issue that arises in the project and negatively affects its course. This process aims to achieve greater effectiveness and increase efficiency in managing issues related to the project.

The following is a brief list of some of the key features of the electronic system for managing and tracking outstanding cases in

Project:

1. Comprehensive Registration: The system allows recording and documenting all outstanding issues including key details and important dates.
2. Case classification: The system allows the classification of cases according to their types and priorities to facilitate effective handling.
3. Assigning responsibility: The system allows assigning responsibility at the individual level to each issue to ensure that it is properly followed up and addressed.
4. Collaboration: The system provides a central communication interface for all team members to exchange information and communicate on outstanding issues.
5. Case Tracking: The system allows the status of each case to be tracked continuously, making it easy to monitor progress and take appropriate action.

6. Reports and analytics: The system enables the generation of detailed reports and analyses of case management performance, helping to make strategic decisions and improve operations.
7. Access and Security: The system is characterized by the presence of strong security mechanisms and controls to ensure data protection and restrict access to information only to those who have the right to it.

Outstanding Issue Reports

The contractor team (Taqnyat) will provide comprehensive reports on the relationship issues in the form of a dashboard that includes the following indicators:

- Team Response Rate: Relates to how quickly the team responds to outstanding issues and initiates the process of addressing them.
- On-time resolution rate: Refers to the team's ability to resolve issues in a timely manner and not delay them.
- Rate of definitive resolution of cases: It relates to the percentage of cases that have been definitively resolved without reappearing.
- Duration of handling cases: refers to the time it takes to address and resolve outstanding issues.
- Customer satisfaction: It is related to the extent of customer satisfaction with the way outstanding issues are dealt with and the extent to which they understand the solutions provided.

The contractor has the ability to modify the display panel and add new indicators according to the project need and the client's desire.

19. Monitoring and follow-up plan

Monitoring and follow-up are crucial elements in project management, especially in managed services projects such as in the alerts and text messaging system. The development of an integrated monitoring and follow-up plan aims to ensure the smooth and effective implementation of all operations and activities related to the project.

Objectives of building a monitoring and follow-up plan:

1. Effectiveness: The plan aims to ensure that the objectives set for the project are achieved on time and with the required quality.
2. Performance Appraisal: The plan helps evaluate the performance of operations and provide feedback to improve future performance.

3. Risk management: The plan contributes to identifying and managing the risks that may face the project, and providing appropriate solutions to them.
4. Evaluation of progress: Monitoring and follow-up aims to assess progress towards achieving project objectives, and to ensure that all activities are proceeding as planned.
5. Documentation of results and instructions: The plan is a mechanism for documenting the results achieved and the instructions acquired, which helps in improving the performance of future projects

Key Performance Indicators - KPIs

figure	Pointer	Measurement Officer	Periodicity of measurement
1	Completion rate compared to project schedule	Project Manager	weekly
2	Quality (number of errors or problems that need to be fixed)	Quality Team	weekly
3	Percentage of requirements completed out of total	Project Manager	weekly
4	Customer satisfaction (measuring satisfaction through questionnaires)	Support Team	monthly
5	Responding to technical support issues	Support Team	daily
6	Number of tests performed and passed	Quality Team	weekly
7	Average response time to technical support requests	Support Team	weekly
8	Compliance with technical and regulatory standards	Quality Team	monthly
9	Communication satisfaction and effectiveness	Project Manager	monthly

Project Dashboard

A professionally designed display board will be used that visually shows the status of the project in agreement with the steering committee by the client and responds to the requirements of the project at the strategic and operational level.

Reports

In addition to the reports in the communication plan, there are additional reports dedicated to monitoring and monitoring the project and ensuring that it is proceeding according to the work plan and dealing with any deviation immediately, including:

figure	Report Name	Contents	Repeat release	Administrator
1	General status report of the project	An overview of the status of the project, including timeline, budget, quality, and risk	Weekly/Monthly	Project Manager
2	Risk Report	Potential project threats, assessment, and corrective actions	As needed	Project Manager

3	Progress Report	Achievements made within a certain period of time, completed and pending tasks	Weekly/Monthly	Project Manager
4	Issue Report	Issues addressed by the Panel and the need to act on them	As needed	Project Manager
5	Financial Performance Report	Use of project financial resources and comparison with planned budget	Per month	Project Manager / Chief Financial Officer
6	Quality Report	Project Quality Standards and Quality Issues	Per month	Quality Manager
7	Product Evaluation Report or Results	Results or products delivered	As needed / On delivery	Project Manager
8	HR Report	Team performance and use of human resources in the project	Per month	HR Manager

Reports on the operation and maintenance phase

This item will be covered in the Service Level Assurance Agreement (SLA)

Meetings

In addition to what is in the communication plan, it is necessary to focus on a set of meetings for the purposes of monitoring and following up the project, it is important to maintain regular meetings as the following meetings will be committed to in the project:

- Weekly team meetings: There should be weekly meetings with the full team to review progress and resolve any issues that may have arisen. These meetings can serve as a joint session to determine next steps and distribute tasks.
- Monthly management meetings: There should be a monthly meeting with senior management to report on progress and issues that could require their intervention.
- Quarterly review meetings: Every quarter, there should be a meeting to review the grand goals and re-evaluate where the project is in place for those goals.
- Emergency meetings: These meetings should only be held when necessary, when there is a major problem that requires discussion and resolution quickly.
- Stakeholder meetings: There should be periodic meetings with stakeholders to update them on project progress and get feedback.

20. Backup and Restore Management Plan

Data Backup and Restore Management Plan: A document that outlines procedures and policies to protect data and ensure effective backups and restore data after a malfunction or accident. They aim to determine the frequency of the backup, the techniques used, the recovery procedures and the distribution of responsibilities. Ensure continuity and availability of data and reduce downtime.

The purpose of this data backup plan is to ensure that the customer can perform a safe and secure backup of mission-critical data, systems, databases, and other technologies so that it is available in the event of a malfunction affecting business operations. All client locations are expected to implement data backup measures whenever possible to minimize operational disruptions and recover as quickly as possible in the event of an accident.

range

The scope of this plan is limited to data backup activities, not a daily problem resolution procedure document.

Objectives of the Plan

- Serves as a guide for customer IT data backup teams
- References and references to the location or locations of copied data, systems, applications, and other vital and critical data sources
- Provide procedures and resources to back up data, systems and other resources
- Identify vendors and customers who should be notified in the event of a malfunction that may necessitate restoring backup data and other resources
- Reduce operational disruptions by documenting, testing and reviewing data backup procedures
- Identify alternative sources of data backup activities
- Store document data, backups, vital record recovery procedures, and other related data

Assumptions:

- Key data replication staff will be available in Taqnyat (such as Principal Data Replication Manager, Team Leaders, Technicians and Replacements) after an emergency.
- This plan and related documentation are stored in a secure off-site place and not only survive the disaster but are accessible immediately after the disaster strikes.
- Your IT organization will have technological disaster recovery (DR) plans that align with the data backup plan.

Definition of disasters

A disaster is any disruptive or catastrophic event (such as power outages, weather, natural disasters, and sabotage) that causes disruption to the technology related to data, databases, systems, archived data, and other resources provided by a customer's IT operations.

Back up data and related teams

- Data Backup Team
- IT Technical Support Team



See Appendix 3 for details on the roles and responsibilities of each team.

Responsibilities of team members

- Each team member will assign a replacement/reserve.
- All team members must keep an up-to-date call list of team members' work, home, and mobile phone numbers at home and work.
- All team members should keep this plan for reference at home in the event of disruption after normal business hours.
- All team members should familiarize themselves with the contents of this plan.

Backup policy

Full and incremental backups protect and preserve corporate network information, and should be performed on a regular basis for system logs and technical documentation that cannot be easily replaced, have a high replacement cost, or are considered critical. Backup media should be stored in a safe location, geographically separate from the original location, and isolated from environmental hazards. Backup network components, cables, connectors, power supplies, spare parts and related documentation should be stored in a secure area on site as well as at other company sites.

Data and document retention policies are established to determine which records should be kept and for how long. All departments are responsible for defining data management, data retention, data destruction, and comprehensive records management requirements.

IT Technical Support follows these standards for data backup and archiving:

System Databases

- You should make a copy of the most recent mission-critical databases at least twice a month, or based on the frequency of changes made.
- Backups should be stored off-site.
- The main data administrator is responsible for this activity.

Important and critical data

- Critical and current critical data and databases should be backed up according to specific recovery point objectives (RPOs), and should be reversed or copied to secure backup locations within the RPO timeframes.
- Backups should be stored off-site in one or more secure cloud locations or in alternative corporate offices or data centers, or a combination of these.
- The main data administrator is responsible for this activity.

Junk Data - Critical

- Current non-critical data and databases should be backed up according to RPOs, and can be copied to secure backup locations within the RPO timeframes .
- Instead, copies of existing data and databases should be made at least twice a week, or based on RPO metrics or frequency of changes made.
- On-site backups may be stored in secure storage facilities, stored off-site in one or more secure cloud locations or in alternative corporate data centers or offices, or a combination of these.
- The data management team is responsible for this activity.

Backup media are stored in secure locations, isolated from environmental hazards and geographically separated from site housing network components.

Off-site storage procedures

- Tapes, discs and other suitable media are stored in environmentally safe facilities.
- Tape or disc rotation occurs on a regular schedule that is coordinated with the storage vendor.
- Access to backup databases and other data is tested annually.

Magnetic bands (if used)

- Tapes older than three years are destroyed every six months.
- Tapes under three years old must be stored locally off-site.
- The system administrator is responsible for the tape transformation cycle.

Perform data backups

Data backups should be scheduled daily, weekly, and monthly according to the nature of the backups. Data administrators should use approved backup technology to prepare, schedule, execute, and verify backups. Backups can be done on local storage resources (such as disks, tapes, and RAID) at the same site or in secure off-site locations (such as cloud data replication service providers or data backup service providers as a service) approved by the IT department.

Data backup activities

The following tabulation lists the backup activities that must be performed regularly and scheduled.

figure	Procedure	Executing Person
1	Review the program with the IT department; get approvals as needed	Principal Data Replication Manager, Head of IT Operations
2	Identify and classify the data that should be copied	Principal Data Copy Manager, Backup Team
3	Identify and classify the systems that need to be copied	Principal Data Copy Manager, Backup Team
4	Identify and categorize other resources to be copied	Principal Data Copy Manager, Backup Team
5	Schedule backup activities, such as date, time, frequency, type of resources to copy, and backup destination	Principal Data Copy Manager, Backup Team
6	Programming backup systems and resources according to schedule and policy	Principal Data Copy Manager, Backup Team
7	Schedule tape copying and rotating activities	Principal Data Copy Manager, Backup Team
8	Perform backups of data, systems, and other resources	Principal Data Copy Manager, Backup Team
9	Ensure that the tapes are secured for receipt and tagged correctly; Verify the receipt process	Principal Data Copy Manager, Backup Team
10	Verify that backups have been successful and all copied resources have not changed	Principal Data Copy Manager, Backup Team
11	Preparation and distribution of backup reports	Principal Data Copy Manager, Backup Team
12	Schedule and run data backup tests	Principal Data Copy Manager, Backup Team
13	Schedule and perform updates to backup resources	Principal Data Copy Manager, Backup Team
14	Update backup systems and technologies as needed	Principal Data Copy Manager, Backup Team

Data Recovery

Procedures must be developed, documented, and tested periodically to recover data, databases, systems, applications, and other information assets in the event of a disruptive event that necessitates the recovery of those assets and resources.

Plan review and maintenance

The data backup plan should be reviewed periodically and procedures validated (and updated as needed) to ensure backups occur as needed and when needed. As part of this activity, it is recommended to review the lists of data backup team staff, data backup service vendors, cloud data backup vendors, and update contact details as needed.

The hard copy of the data backup plan will be stored in a shared location where IT staff, such as data administrators, can view it. Electronic versions of IT technical support will be available.

21. Human Resource Management Plan for a Project

The human resources management plan of the project is concerned with organizing and managing the available human resources to achieve the objectives of the project effectively. It includes identifying human needs, recruiting and selecting employees, developing them, managing their performance, public relations, compensation, administrative processes, and

risk management. The goal is to ensure the availability of an integrated and qualified team to successfully implement the project.

Determinants of the project's HR plan

The contractor is aware of the legal obligation towards his human cadres and accordingly the contractor confirms:

- It is committed to the legislation in force in the Kingdom of Saudi Arabia with regard to its cadres and affiliates, and undertakes to abide by everything issued by the customer within the limits of law and order.
- He is committed to forming the work team specified in the project presentation.
- The consent of the client must be taken when changing the project manager or any worker affiliated with the technical contractor or his collaborator.
- The technical contractor is responsible for fulfilling labor requirements and obtaining work permits and residence permits.
- The technical contractor is the one who bears the duties, taxes and other expenses incurred in the labor.
- Responsibility for the safety of the technical contractor or collaborator lies with the contractor himself, not the customer or government agencies.
- In the event that the technical contractor delays in paying the wages and rights of labor, the dues shall be withheld for the payment of those rights in accordance with the Royal Order.

Project Organizational Structure

The organization structure of the work team can be summarized as follows:

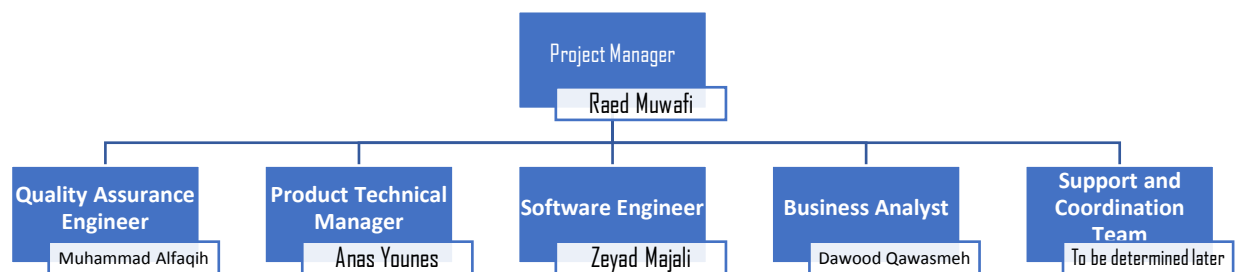


Table of roles and responsibilities

The following table illustrates the roles and responsibilities of both parties to the project during its main and sub-phases:

Customer Responsibility	Contractor's Liability	Detailed Activities	Sub-item	Main item	figure
Confirm and sign	Contractor	Developing the charter document and activating the service	Charter Development	Project Launch	1
Review & Confirm	Contractor	List of stakeholders and determine their importance	Identify stakeholders	Project Launch	2
Confirm roles	Contractor	Definition of roles and allocation of responsibilities	Distribution of roles and responsibilities	Project Launch	3
Review and confirm requirements	Contractor	Identify and analyze commercial and technical requirements	Requirements Identification and Business Analysis	Planning	4
Review and confirm the plan	Contractor	Develop a detailed project implementation plan	Project Plan	Planning	5
Verification & Confirmation	Contractor	Verification of the system and solid equipment	System Scan / Hardware	Installation System	6
Monitoring and Confirmation	Contractor	System operation and maintenance support	Operation & Maintenance	Delivery & Operation	7
Review and confirm the report	Contractor	Provide a detailed report on the implementation and achievements of the project	Final Report	Final shutdown	8

Detailed list of project team

Project Manager

Name	Raed Muwafi
Experience	More than 17 years in managing large projects
Roles and Responsibilities	The project manager has all important responsibilities related to the strategic level of the project, including: Project Strategy Direction: Defines the strategic directions of the project and ensures its alignment with the company's objectives and overall vision Project Planning: Develops a detailed project implementation plan, including identifying the necessary resources, scheduling tasks, and identifying potential risks. System Requirements Analysis: Understands business needs and identifies the functional and technical requirements of a messaging system. Team management: Forms a specialized and appropriate team to implement the project, and manages and directs team members and motivates them to achieve the project goals. Monitoring progress: Monitors the progress of the project and ensures its implementation according to the schedule and budget, and takes the necessary measures to deal with any delays or deviations. Communicate with stakeholders: Deals with internal and external stakeholders, exchanges information and deals with challenges and problems to ensure customer and partner satisfaction. System Quality Assurance: Ensures that appropriate quality assurance processes are implemented for the messaging system, including software testing and verifying its compliance with specified standards. Risk Management: Deals with potential risks that could affect project implementation and adopts strategies to mitigate their impact and successfully achieve project objectives. Budget Follow-up: Manages the budget allocated to the project and verifies the availability of funding to carry out the various tasks and activities within the specified budget. Change Management: Deals with required changes in business requirements or surrounding circumstances, and applies strategies to manage change and mitigate any potential negative impacts.

	Evaluate and improve performance: Regularly evaluates project performance and takes measures to improve performance and achieve desired results.
	Information Documentation: Ensures that all project-related information, including reports, directives, and decisions, is documented to provide a detailed and comprehensive record of the project.
	Achieving overall satisfaction: Satisfies all stakeholders, including customers, team and partners, by delivering a high-quality and timely messaging system.
	Problem solving: Deals with problems and challenges that may arise during the implementation of the project, searches for effective solutions and makes the right decisions to overcome them.
	Reporting and communication: Prepares periodic reports showing project progress and performance evaluation and communicates appropriately with all concerned parties to share information and update them on ongoing developments.

Product Technical Manager

Name	Anas Younis
Experience	More than 7 years in software development and data analysis
Roles and Responsibilities	List of roles and responsibilities
	Product Requirements Specification: Clearly and elaborately articulates and documents the specific requirements of the product.
	Develop product development plans: Develops detailed product development plans including required resources, schedule, and specific activities.
	Development Management: Responsible for managing the overall product development process, including team coordination, directing efforts, and tracking progress.
	Development Process Monitoring: Tracks and evaluates the progress of the development process and ensures that it adheres to the specified specifications, schedule and budget.
	Development Team Guidance: Provides guidance and technical support to development team members, and promotes collaboration and teamwork.
	Product Innovation and Improvement: Participates in the processes of innovation and product improvement, and strives for technical excellence and innovation in the product industry.
	Communication and coordination with stakeholders: Interacts with different stakeholders, including clients, partners and other teams within the organization, to share information and ensure that necessary changes and guidance are accommodated.
	Product Quality Assurance: Works to ensure product quality by setting and applying procedures and with
	Product Quality Assurance: Works to ensure product quality by setting and applying procedures and standards to ensure that a high quality product is provided in accordance with the specified requirements.
	Risk Management: Analyzes and evaluates potential risks in the product development process and takes the necessary measures to deal with them and minimize their impact on the work schedule and product quality.
	Collaborate with other teams: Collaborates with other teams within the organization such as design, marketing and technical support teams to ensure product integration and achieve an integrated vision.
	Communication with customers: Interacts with customers to understand their requirements, feedback and guidance, and works to achieve customer satisfaction by meeting their needs and providing a product that meets their expectations.
	Technology and trends tracking: Follows and analyzes new technology and trends in the product industry and guides the team towards adopting best practices and modern development techniques.
	Resource Management: Plans and organizes the technical and human resources required to implement the product development process effectively and with the required quality.
	Provide reports and evaluations: Prepares periodic reports and evaluations of the development team's performance and product quality, and makes recommendations for improvement and strategic decision-making.

Software Engineer

Name	Ziad Majali
Experience	More than 10 years in the development of complex software systems
Roles and Responsibilities	List of roles and responsibilities
	Software Development: Analyzes product requirements and translates them into an effective and scalable software design.

Software Programming: Develops and programs the required software systems and applications, using appropriate programming languages and tools.
Software Testing: Designs and implements comprehensive testing processes for the developed software, in order to ensure the quality and performance of the software and ensure that it meets the specified requirements.
Debugging: It analyzes and identifies errors and gaps in software, and makes the necessary modifications and corrections to ensure the stability of the system and the safety of its work.
Software Documentation: Documents and documents developed systems and software, including technical documentation, diagrams and code, to provide comprehensive documentation of the system.
Collaborate with the team: Collaborate with the rest of the team members such as the technical product manager and the quality assurance engineer to ensure effective integration and cooperation in software development.
Follow-up of new technologies: Follows up and keeps pace with new technologies and tools in the field of software development, and adopts modern practices and techniques to improve the efficiency and quality of software.
Troubleshooting assistance: Provides technical support and helps solve software-related issues
Version Management: Manages and monitors software versions, including controlling copies and updates and managing changes.
Performance Improvement: Improves software performance through code optimization, performance improvements, and the implementation of best practices.
Continuous learning: keeps pace with developments in the field of software development and seeks to develop his skills and technical knowledge through reading, training courses and job training.
Communication with customers: deals with project customers, understands their needs and requirements, and works to provide appropriate technical solutions for them.
Solving technical problems: It deals with technical problems and difficulties that arise during the software development process and works to solve them effectively and quickly.
Cooperation in the work team: Participates in technical meetings and coordination with the rest of the team members to achieve the objectives of the project and ensure coordination of work.
Follow up on deadlines: Adheres to the software development schedule and works to meet delivery deadlines.

Quality Assurance Engineer

Name	Muhammad Alfaqih
Experience	More than 8 years in software quality assurance
Roles and Responsibilities	List of roles and responsibilities
	Software Testing: Develops and implements comprehensive software quality assurance strategies and testing plans, including module testing, system testing, and performance testing.
	Defect Management: Analyzes and documents defects and problems discovered during the testing process and collaborates with the development team to correct errors and problems related to software.
	Quality Control: Monitors the quality of software throughout the process according to specified standards and requirements and ensures that the software meets the due standards and provides the required performance.
	Development of Testing Procedures: Develops and improves test procedures and tools used to ensure the effectiveness and efficiency of the testing process.
	Performance analysis: analyzes test results, reviews software performance, evaluates its quality and effectiveness, and makes recommendations for improvement.
	Testing Documentation: Documents all results, reports and recommendations related to the testing process and software quality.
	Development Team Liaise: Collaborates and communicates closely with the development team to ensure that quality requirements and testing needs are understood and implemented.
	Implementation of standards and standards: ensures the implementation and compliance of standards and practices
	Standards adopted in the field of quality assurance for software, such as ISO and quality standards specified within the project.

Business Analyst

Name	Dawood Qawasmeh
Experience	More than 12 years in business analysis

Roles and Responsibilities	List of roles and responsibilities
	Business Analysis: Study and analyze the current processes and systems in the organization to determine the required needs and improvements.
	Identify business needs: Understand customer and stakeholder requirements and identify the specific needs of the project.
	Documentation of requirements: Translating business needs into actionable functional specifications for the development team.
	Gap Analysis: Identify gaps between current and target requirements and provide appropriate solutions to those gaps.
	Effective communication: Interact with customers and stakeholders to ensure that their requirements are understood and information is accurately communicated to the development team.
	Development Team Guidance: Provide guidance and guidance to the development team on job requirements and clarify the standards and standards that must be adhered to.
	Testing and Improvement: Participate in product testing and improvement processes to ensure that specific requirements and required quality are met.
	Process documentation: Document all information, analysis and recommendations related to business analysis and requirements identification.

Support and Coordination Team

Name	Project Coordinators
Experience	More than 3 years in coordinating project activities
Roles and Responsibilities	List of roles and responsibilities
	Project Manager Support: The project coordinator provides the necessary support to the project manager in achieving the project objectives. Coordinates efforts among team members and promotes communication and collaboration between them. It can also provide the reports and information needed to make strategic decisions.
	Planning and coordination assistance: The coordinator can participate in the strategic planning process of the project and help identify and organize the required resources effectively. It can also help coordinate the schedule and ensure that tasks are followed up and goals are achieved.
	Team coordination: The coordinator coordinates, organizes, and directs team members to achieve project objectives. He must enhance communication and cooperation among members and guide them in carrying out the tasks set and ensure their adherence to the schedule and quality standards.
	Organization of meetings: The coordinator organizes the meetings related to the project and arranges their agenda. He must prepare the meeting schedule, review the topics raised, ensure the attendance of important members, and document the minutes of meetings and decisions taken.
	Appropriate reports and information available to identify any delays or problems and take action for correction.
	Document Management: The project coordinator is responsible for managing project documents. He creates and updates the necessary documents and files and ensures their availability to the team. He must also ensure that documents are organized in a way that facilitates access to them and keeps them secure.
	Manage versions: The role of the project coordinator is also to manage the different versions of the application. He must ensure that all changes and improvements made in the application are documented, tracked and distributed to the team.
	Monitoring progress: The coordinator monitors the progress of the project and the achievement of the set goals. He must keep track of the schedule and references

Extensions

Appendix -1- Components of an Internal Cooperation Agreement (OLA)

The Regulatory Level Agreement (OLA) includes several key components, including:

1. Definition of Teams Involved: This component includes identifying the different teams or divisions involved in the agreement that deal with each other. The parties involved are identified and the relationships between them are defined.
2. Services Provided: The services or products provided by each team or department must be specified in the agreement. The main functions and responsibilities assumed by each team to provide the required services are outlined.
3. Credits and exchanges: Credits between different teams and exchanges needed to achieve effective collaboration and successful service delivery must be clarified. These credits can include delivery time, inputs and outputs, required data, problem-solving collaboration, and more.
4. Responsibilities and commitments: The specific roles and responsibilities of each team or department should be clarified. It is determined who performs any particular tasks or actions and who bears responsibility for them.
5. Performance metrics: Specific performance metrics that are measured to evaluate the performance of different teams can be included in the OLA framework. These metrics can be used to track performance and ensure that set goals are met.
6. Communication mechanisms: Communication and coordination mechanisms between different teams must be defined within the framework of the OLA. This includes regular meetings and means of communication

Appendix -2- Internal Cooperation Agreement (OLA Model)

Here is a sample organizational level agreement (OLA) for a project to send messages and alerts:

Organizational Level Agreement (OLA) for the Sending Messages and Alerts Project

1. Participating Parties:
 - Team A.
 - Team B Technologies.
2. Services Provided:
 - Team A is responsible for defining the content and design of messages and alerts.

- Team B is responsible for the development and maintenance of the system that sends messages and alerts.
- 3. Credits and exchanges:
 - Team A will provide the content and design needed to send messages and alerts.
 - Team B will provide secure and stable access to the system and data needed to send messages and alerts.
- 4. Responsibilities and obligations:
 - Team A is responsible for:
 - Develop and design the content of messages and alerts.
 - Identify the target group for each message or alert.
 - Provide the necessary updates to the content and design.
 - Team B is responsible for:
 - Development and maintenance of the system that sends messages and alerts.
 - Ensure the stability and security of the system.
 - Set the necessary settings to send messages and alerts and update them as needed.
- 5. Performance metrics:
 - Team A
 - Responsible for the durability and quality of content and design.
 - Team B is responsible for
 - Track system performance and ensure that messages and alerts are delivered on time.
 - Delivery time: Deliver messages and alerts according to schedule, avoiding any undue delays.
 - System stability: Ensure the stability of the system that sends messages and alerts, and minimize the occurrence of any unplanned outages.
 - Support response: Provide the necessary technical and technical support in case of any problems or queries on the part of Team A.
- 6. Communication Mechanisms:
 - Weekly/monthly meetings: Organize regular meetings between Team A and Team B to discuss project progress and exchange information.
 - Email communication: Use email for daily communication between the two teams, including providing content and design updates and performance reports.

The participating teams signed below to confirm the content and adherence to the Organizational Level Agreement (OLA).

Team A: Date:



Team B: Date:

Appendix-3- Difference

Data Backup Team

Responsible for the overall planning, management and implementation of data backup activities and providing regular reports to the IT department on backup performance according to specific data backup metrics

Support activities

- Analyzes data backup performance against specific metrics
- Identifies backup priorities based on collaboration with IT technical support and users
- Provide IT management with ongoing status and performance data
- Works with vendors and IT technical support to ensure the continuous operation of backups