Kalam Telecom Internet Service Provider - Project Charter - Version 1.0

Project Start Date: 1/10/2025   Project End Date: 29/12/2025

1. Client overview: Stakeholders register, Client Background, current systems, related policies and procedures.

1.1. Project Stakeholders

Role	Name	Contact
Sponsor	Kalam Telecom	-
Client	IT department team of Kalam Telecom	Wakil.Sarfaraz@polytechnic.bh
Project Manager	Hasan Bahzad	202001980@student.polytechnic.bh
Advisor	Wakil Sarfaraz	Wakil.Sarfaraz@polytechnic.bh

1.2. Client Background

Kalam Telecom is a regional Internet Service Provider that provides internet connection to the consumer and enterprises. The company aims to make their core network stronger by implementing and utilizing label-based packet forwarding technologies to reduce latency, optimize delivery performance and ensure future scalability.

1.3. Current Systems

The existing infrastructure is based on basic and traditional IP routing. The system lacks the use of traffic engineering capabilities. The current routing protocol used in the infrastructure is BGP and OSPF without MPLS support which are resulting in routing limitations and quality of services control.

1.4. Related Policies and Standard Operating Procedures

The project must obey Kalam Telecom's network security and operational policies, which include configuring and maintaining traffic filtering is in line with the industry's best practices. policies guarantee fair bandwidth allocation based on the subscriber plan, consistent implementation of encryption standards and efficient logging and management of network traffic to maintain service quality and security.

2. General Information: Project Purpose, Product Description, Summary of Budget, Schedule, and success criteria.

2.1. Project Purpose

The purpose of the project is to design and integrate label-based packet forwarding technologies such as MPLS to improve performance and service delivery and security. The solution will show the effectiveness of the of label-based packet forwarding technologies, traffic engineering and scalability for interconnecting multiple sites across Bahrain.

2.2. Product Description

The final achievement of this project is to deliver a fully functional network infrastructure that providing label-based packet forwarding technologies core network alongside advanced routing protocols and quality of services policies and redundancy mechanisms. The solution will be supported by detailed documentation and validated through simulation before real-world deployment.

2.3. Schedule Summary

	Task Mode	Task Name	Duration	Start	Finish
0		◢ Kalam Telecom Internet Service Provider	63.81 days	Wed 10/1/25	Mon 12/29/25
1	✓	▷ 1 Initiate Phase	7 days	Wed 10/1/25	Thu 10/9/25
25	✓	▷ 2 Planning Phase	18 days	Sun 10/12/25	Tue 11/4/25
86		▷ 3 Executing Phase	30.31 days	Wed 11/5/25	Wed 12/17/25
149		▷ 4 Monitor and control phase	4.5 days	Wed 12/17/25	Tue 12/23/25
160		▷ 5 Closing the project	4 days	Tue 12/23/25	Mon 12/29/25

2.4. Budget Summary

The estimated total budget is **2,030,720 USD** distributed As follows:

Total number of days: 64 days

Total number of man hour: 64 * 8 = 512 hours

Hourly wages rates: 60$

Total estimated wages cost: 512 * 60 = 30,720$

Hardware cost: 2,000,000$

Total Estimated Budget summary: 2,030,720$

2.5. Success Criteria

The success of the project will be measured against

The following criteria:

- Delivery within the approved budget and time.
- Compliance with the professional and industry standards.
- Achievement of core objectives, including implementing label-based packet forwarding technologies
- Positive client evaluation and satisfaction.
- Full documentation and validation of the network through simulation.
- Validation delivery of ISP services in the simulation environment.

3. Project Context: Business assumptions, constraints, and risks.

3.1. Business Need, Problem, or Opportunity

There are two main substantial problems that the ISP infrastructure is facing. First, the network lacks implementation of label-based packet forwarding technologies, which would allow two isolated routing domains to coexist on the same network. Secondly, there is no security, redundancy and service quality when sending critical information. Furthermore, the ISP should implement and deploy some protocols to make the connection more secure and redundant when exchanging packets between sites. The solution is to configure label-based packet forwarding protocols, QoS and advanced routing techniques alongside redundancy.

3.2. Business Objectives

The main objective of this project is to develop a product that solves the current issues while satisfying their requirements.

The main objectives can be breakdown into several objectives:

- Design a scalable MPLS core network.
- Increase security by implementing label-based packet forwarding technologies.
- Ensure compliance with ISP industry standards.
- Deliver complete documentation and simulation to validate the infrastructure prior to real-world deployment.

3.3. Assumptions

- Networking devices will arrive on time and function as expected.
- Equipment will be sourced from One vendors (Cisco or Huawei).
- Simulation tools (e.g., GNS3, EVE-NG) will function correctly for testing and validation.
- Funding will be available as planned.

3.4. Constraints

- Limited budget allocation
- Strict project timeline
- Possible delay in acquiring networking devices.
- Risk of poorly documented configuration during implementation.

4. legal, ethical, social, and professional issues (LESPI).

4.1. Potential Legal Issues

This project will involve upgrading an ISP core and edge network to implement MPLS VPN technology. Therefore, The project must obey the telecommunication law of the kingdom of Bahrain under the Legislative Decree No. 48 of 2002. in addition to that the project must follow and comply with the national licensing issued by the TRA. Furthermore, all activities should abide by the personal data protection law no 30 of 2018 to ensure the legal and legitimate processing and protection of customer and personal data.

4.2. Potential Ethical Issues

The ethical standards of this project will be upheld by guaranteeing fair access, data confidentiality and transparency. Following with the Personal data protection law No. 30 of 2018 alongside with the telecommunication Legislative law No. 48, The project team will protect the information of the customer, avoid unauthorized network monitoring and prevent misuse customer data. Transparent billing and accurate service delivery will follow the Customer protection regulation law of 2017.

4.3. Potential Social Issues

The ISP upgrade project will promote inclusive and fair access to the improved network services across Bahrain. According to the telecommunication law 48 of 2002 and Bahrain economic vision 2030 the services will be priced fairly to ensure that it is affordable including all areas such as rural and small and medium sized enterprises. Service stability will be maintained according to the TRA Quality of service framework of 2018 to minimize disruption during infrastructure upgrades. in addition to workforce and community impact will be handled in an ethical manner according to the Labor lab No. 36 of 2012 in Bahrain.

4.4. Potential Professional Issues

The project will maintain high professional standards by enforcing the professional management institution (PMI) code of ethics and professional conduct and following the Project Management Body of Knowledge (PMBOK) 7th edition project management principles. All

3.5. Risks
- Malfunction or failure of networking devices.
- Delays in obtaining licensing approvals.
- Misconfigurations leading to downtime or service interruptions.

documentation will achieve full accuracy, transparency and integrity. The team will go under training and induction aligned with the Bahrain labour law No. 36 of 2012. Project staff will follow to the IEEE code of ethics and internal company conduct policies ensuring professionalism and accountability.

5. Approvals and Signatures

Position/Title	Signature- Printed Name/Title	Date
Sponsor Representative		
Project Manager	Hasan Bahzad	4th November 2025