Consultancy services for a Feasibility study for the development of a Digital Highway (optical fiber) for Centrally managed Internet distribution, Intranet communication, CCTV Surveillance, Network Security, and DATA CENTER of Kohalpur Municipality.

### QUALIFICATION OF CONSULTING FORM



- Company Registration Copy
- Tax/Pan Vat Registration Copy
- Tax Clearance of Last Fiscal Year
- Should have Competent and Experienced Human Resource Team
- Should have a minimum of 1.5 Years of Business Experience with similar Nature of work experience.



#### TOR OF CONSULTING WORK

Terms of Reference (TOR) for Consultancy Services for a feasibility study for the development of Digital Highway (optical fiber) for Centrally managed Internet distribution, Intranet communication, CCTV Surveillance, Network Security, and DATA CENTER of Kohalpur Municipality.

## **Project Background:**

Kohalpur Municipality is one of the populated Municipality of Banke Districts, Lumbini Province of Nepal which was established on 8<sup>th</sup> May 2014 with the merge of the existing Rajhena VDC and Kohalpur Town area in the EAST WEST Highway with Intensive urban Growth cities of Nepal. It is surrounded by Nepalgunj Sub metropolitan city, Janaki Rural Municipality, and Khajura Rural Municipality in the south and RaptiSonari Rural Municipality in the East and Baijanath Rural municipality in the West, and Kalimati Rural municipality of Salyan in the North. The Total area of this municipality is 184.26 Sq KM with a sub-tropical temperature of 7c to 46c.

The Kohalpur Municipality has been working for complete digitization since its establishment The kohalpur Municipality has set up the following requirements to regulate utility services, namely electricity, Internet connectivity & WIFI zone, Intranet connectivity, CCTV Surveillances, and DATA Center with all ward offices, Government offices and its offices inside the municipal premises.



# TOR OF WORKS

	Headings	Remarks	
S.N. A.	<ul> <li>Field visit of Sites, Collection of all Physical, GPS, Power &amp; Technical Data as per the Clients list of requirements.</li> <li>Data Collection, compilation, analysis, and development process of Feasibility study of report of completed digitization on Kolhapur Municipality office</li> <li>Intensive Research for Appropriate Technical Specification about Quality, and technical feasibility and estimation of Bill of quantity</li> <li>Cross Sectional Market Analysis for Current</li> </ul>		
	Market Price Estimation with regards to the current situation     Presentation and Handover of reports to Clients		



## This TOR comprises two stages as follows:

1) Lot 1 - Consultancy Field services for the field visit, collection of data, collection of information and primary data from all possible and required stakeholders

2) Lot 2 – Consultancy Desk services for the data collection, compiling, analysis, for technical requirements of devices, bill of quantity and other peripherals, and hand over of reports as per the standard format of consulting Chief Administrative Officer

Lumbini Province

services.

## **Proposed Sequence for implementation of Consulting Services**

It is proposed consulting services for a feasibility study of the digitization of Kohalpur Municipality will be implemented using a phased approach.

The following 4 phases would be considered:

existing system Analysis & Requirements Documentation /BoQ

- a) A thorough assessment of any existing IT system including infrastructure, network, and security along with HR systems in the specified site
- b) Consultations, based on the minimum requirements of infrastructure in reference to targets of clients as will be advised accordingly by each office and its targeted wards and offices, followed by analysis;
- c) Submission of detailed hardware, security software, and electrical power requirements and specifications for the equipment, DATA Centers in the form of a comprehensive requirements documentation/bill of quantities (BoQ), together with a template for the maintenance contract for the digitization of Kohalpur municipality hardware and solutions supplier(s)/contractor(s);
- d) Submission of a detailed list of requirements and specifications for the creation of a Latest, upgradable and scalable (amongst others) and user-friendly system of digital highway (internet, intranet, network security, infrastructure, security, and operational supports)

## **Objectives**

The main objective of this consultancy is to provide best feasibility study of digitization of infrastructure, Networks, and securities of Kohalpur Municipality along with current IT system in place, and submit a comprehensive design brief consisting of Hardware architecture (infrastructure, Network, and security, mapping, along with human resource capacity building, training and operational supports of the system, specifications (Bill of Quantities) as well as detailed costing and technology feasibility.

### Scope of works

The scope of feasibility study consulting works as prescribed in specific as follows:

- Development of Digital Highway (Secured & Efficient Connectivity of Optical fibers) from Municipality Data Center to 15 Municipality Ward Offices, 16 Health offices, community Schools, and other offices under the authority of local governments, for Centrally Managed internet distribution, intranet communication, CCTV cameras with VMS system and Managed Free WIFI zone in targeted areas
- 2. Identification and Estimation of Electrical Pole installation requirements zones for proper cabling of optical fibers.
- 3. Identification and Estimation of alternative Solar Energy backups in NEA Nation Grid Line free zone.
- 4. TQM Estimation of Digital highway (Optical fibers) infrastructures in its capacity, and quality in reference to the traffic of data packages.
- 5. Estimation, selection, and finalization of all the technical infrastructure requirements for centrally managed internet distribution, Data Center, 100 CCTV Camera system with VMS system along with Storage backups for minimum 3 months, 500M Radius AP for free WIFI Zone and other peripherals reference to TOR

## Submission procedure

The consultants will have to provide justifications when comments are not incorporated in the output/deliverable

#### **Human Resources**

Key Expert 1 Team Leader (IT Engineer/Information Technology Expert)

#### Education

 Graduate degree in Electronics and Communication Engineer or any other related from a recognized university. Specializations in Software, hardware, networks, and ISP will be an advantage.

## Experience

- Must have at least 2 years of relevant experience in terms of project planning, development, and, project risk analysis and mitigation techniques related to IT CONSULTING
- Must have at least 1 site reference.
- Experience in Experience in Government Bodies would be an advantage.

### Skills and competencies:

- · Sound leadership and planning skills.
- · Sound understanding of needs and issues of government bodies.
- · Sound analytical and presentation skills.

### Language

• Excellent written and spoken English is required. Report writing skills are a must.

## Key Expert 2 – Electric Engineer

#### Education

• Bachelors or Degree in Electric Engineer from a recognized university.

### Experience

Must have at least 1 year's experience in similar projects

### Skills and competencies

- · Good Understanding of Electricity, NEA, and other authority board
- Good understanding of Electric Consulting of electrifications in requirements of institutions.
- Good analytical skills

#### Language

Good written and spoken English is required



Key Expert 2 – Civil Engineer

# Education

• Bachelor's or Degree in Civil Engineering from a recognized university.

## Experience

• Must have at least 1 year's experience in similar projects

# Skills and competencies

- Good understanding of civil works of external electrifications in requirements of institutions.
- · Good analytical skills

## Language

· Good written and spoken English is required



S. N	Activity	Estimated person days input
1.	Filed Visits and Collections of All required Data	
2.	Consultations with Municipality authority, ward representatives, and other stakeholders of this project	
3.	Undertaking Primary data, data analysis, compiling and analysis of gaps and requirements meeting equipment	
4.	Technology Selection, Verification, and recommendation process	
5.	Finalize Hardware infrastructure, Networks, and security systems along with Market analysis reference to National Import policy, Stocks and for seen for best estimation of costs, installation cost and support cost along with Bill of Quantities (BOQ) feasibility study	
6.	Preparation of draft, verification, and supervision of STANDARD FORMATE	₹7 <u>5</u>
7.	Logistic work/ Delivery and registration of Hard copies along with soft copies	
TOTAL		30 Days



### Approximate Cost of Consulting

S.N.	Human Resources	Required Skilled Person	Time (in days)	Skilled Manpower Cost per day	Cost (in Rupees)
1.	Team Leader	1			
2	Electrical Engineer	1			
3	Civil Engineer	1	3.0		
4	Documentations	1	A STATE OF THE		
5	Report Preparation and other resources		3		1-
6.	Transport, Logistics, and Equipment				
		TOTAL			
		VAT 13 %	6		21020
	(	469628/-			

(Four Lakh Sixty-Six Thousand Two Hundred and Thirty Rupees Only)

## Reporting, Presentations, and Language

Final report documents shall be submitted in editable Microsoft Office Word Version and editable PDF Version, and hard copies (2 copies) signed by consultants to the municipality authorities.

The language of consulting services shall be English. All the outputs and deliverables shall be written in the English language in accordance with the municipality.

## **Logistical Arrangements**

All transportation costs and administrative costs related to the execution of the consulting services are to be borne by the consultant firm.

### Delivery and Schedule.

- Deliverables will be All reports should be submitted in the draft (for comments) and then final.
- The Deliverables of Hard copy and a soft copy shall be submitted in the required format (Report in MS Word/ Pdf versions, Coordinates in KML/KMZ/GPX file



and then final.

- The Deliverables of Hard copy and a soft copy shall be submitted in the required format (Report in MS Word/ Pdf versions, Coordinates in KML/KMZ/GPX file format).
- The address for delivery is Kohalpur Municipality Office, Kohalpur Banke.

Mr. Sagar Chaudhari

IT Officer

Mr. Yubaraj Adhikari

Account Officer

Mr. Teekaram Dhakal

Chief Administrative Officer

Imbini Province, Nepal

Office Stamp: