DRAFT

CONTRACT FOR CONSULTING SERVICES

BETWEEN

UNIVERSAL SERVICE FUND

(A company setup under Section 42 of the Companies Ordinance 1984)
(Fifth Floor, HBL Tower, Jinnah Avenue, Islamabad)

AND

Telecom Engineering and Consultancy House (Pvt) Limited (1st Floor, 14-G Plaza, Street 17, I-9 Markaz, Islamabad)

I. Form of Contract

This CONTRACT (hereinafter called the "Contract") is made the [Month Day] day of the month of [Month Name], [Year], between, on the one hand, the Universal Service Fund, a company setup under section 42 of the Companies Ordinance, 1984 (hereinafter called the "USF") and, on the other hand, [Company Name and Complete Address] (hereinafter called the "Consultant").

WHEREAS

- (a) the USF has requested the Consultant to provide certain consulting services as defined in this Contract (hereinafter called the "Services");
- (b) the Consultant, having represented to the USF that it has the required professional skills, and personnel and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the parties hereto hereby agree as follows:

- 1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - (a) The General Conditions of Contract;
 - (b) The Special Conditions of Contract;
 - (c) The following Appendices:

Appendix A: Description of Services

Appendix B: Reporting Requirements

Appendix C: Key Personnel and Sub-Consultants

Appendix D: Form of Bank Guarantee for Advance Payment

Appendix E: Terms of Reference (ToRs)

Appendix F: USF Payment Schedule

- 2. The mutual rights and obligations of the USF and the Consultant shall be as set forth in the Contract, in particular:
 - (a) the Consultant shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) the USF shall make payments to the Consultants in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties respective names as of the day and year	hereto have caused this Contract to be signed in their first above written.
For and on behalf of USF Tahir Javed General Manager (F&A)	
For and on behalf of Consultant Telecom Engineering and Consultancy	House (Pvt) Limited
In the presence of:	
Witness Name:	Witness Name:
Title:	Title:
NIC:	NIC:

II. General Conditions of Contract

1. GENERAL PROVISIONS

1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Law" means the laws and any other instruments having the force of law in the Islamic Republic of Pakistan, as they may be issued and in force from time to time.
- (c) "Consultant" means any person or private or public entity that will provide the Services to the USF under the Contract.
- (d) "Contract" means the Contract signed by the Parties and all the attached documents listed in its Clause 1, that is these General Conditions (GC), the Special Conditions (SC), and the Appendices.
- (e) "Contract Price" means the price to be paid for the performance of the Services, in accordance with Clause 5;
- (f) **"Effective Date"** means the date on which this Contract comes into force and effect pursuant to Clause GC 2.1.
- (h) "GC" means these General Conditions of Contract.
- (i) "Government" means the Government of the Islamic Republic of Pakistan.
- (j) "Member" means any of the entities that make up the joint venture/consortium/association, and "Members" means all these entities.
- (k) "Party" means the USF or the Consultant, as the case may be, and "Parties" means both of them.
- (1) **"Personnel"** means persons hired by the Consultant or by any Sub-Consultants and assigned to the performance of the Services or any part thereof.
- (m) "SC" means the Special Conditions of Contract by which the GC may be amended or supplemented.
- (n) "Services" means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto.
- (o) "Sub-Consultants" means any person or entity to whom/which the Consultant

subcontracts any part of the Services.

(p) "In writing" means communicated in written form with proof of receipt.

1.2 Law Governing Contract.

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

1.3 Language.

This Contract has been executed in English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

1.4 Notices.

- **1.4.1** Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the SC.
- **1.4.2** A Party may change its address for notice hereunder by giving the other Party notice in writing of such change to the address specified in the SC.

1.5 Location

The Services shall be performed at such locations as are specified in Appendix A hereto and, where the location of a particular task is not so specified at such locations as the USF may approve.

1.6 Authority of Member in Charge.

In case the Consultant consists of a joint venture/consortium/association of more than one entity, the Members hereby authorize the entity specified in the SC to act on their behalf in exercising all the Consultant's rights and obligations towards the USF under this Contract, including without limitation the receiving of instructions and payments from the USF.

1.7 Authorized Representatives.

Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the USF or the Consultant may be taken or executed by the officials specified in the SC.

1.8 Taxes and Duties.

The Consultant, Sub-Consultants, sub-consultants and their Personnel shall pay all such taxes, duties, fees and other impositions levied under the applicable law, the amount of which is deemed to have

been included in the contract price.

1.9 Fraud and Corruption

1.9.1 Definitions

- (i) "corrupt practice" means the offering, receiving, or soliciting, directly or indirectly, of any thing of value to influence the action of an employee of the USF in the selection process or in contract execution:
- (ii) **"fraudulent practice"** means a misrepresentation or omission of facts in order to influence a selection process or the execution of a contract;
- (iii) "collusive practices" means a scheme or arrangement between two or more consultants, with or without the knowledge of the USF, designed to establish prices at artificial, noncompetitive levels;
- (iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract;

1.9.2 Measures to be taken.

- (a) USF will cancel the Contract if it determines at any time that the Consultant or his/her representatives were engaged in corrupt, fraudulent, collusive or coercive practices during the selection process or the execution of that contract, without the Consultant having taken timely and appropriate action satisfactory to the USF to remedy the situation;
- (b) USF will sanction a Consultant, including declaring the Consultant ineligible, either indefinitely or for a stated period of time, to be awarded a USF contract if it at any time determines that the Consultant has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing the contract.

2. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

2.1 Effectiveness of Contract.

This Contract shall come into effect on the date the Contract is signed by both Parties or such other later date as may be stated in the SC. The date the Contract comes into effect is defined as the Effective Date.

2.2 Commencement of Services.

The Consultant shall begin carrying out the Services from the Effective Date or from such other Date

specified in the SC.

2.3 Expiration of Contract.

Unless terminated earlier pursuant to Clause GC 2.6 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SC.

2.4 Modifications or Variations.

Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.

2.5 Force Majeure

2.5.1 Definition.

For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

2.5.2 No Breach of Contract.

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

2.5.3 Extension of Time.

Any period within which a Party shall, pursuant to this Contract, complete any action or task, may be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure at the sole discretion of the USF.

2.5.4 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant shall be entitled to continue to be paid under the terms of this Contract.

2.6 Termination

2.6.1 By the USF.

The USF may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause GC 2.6.1. In such an occurrence the USF shall give a not less than thirty (30) days' written notice of termination to the Consultant, and sixty (60) days' in the case of the event referred to in (e).

- (a) If the Consultant does not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the USF may have subsequently approved in writing.
- (b) If the Consultant becomes insolvent or bankrupt.
- (c) If the Consultant, in the judgment of the USF has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- (d) If, as the result of Force Majeure, the Consultant are unable to perform a material portion of the Services for a period of not less than sixty (60) days.
- (e) If the USF, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.
- (f) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GC 7 hereof.

2.6.2 By the Consultant.

The Consultant may terminate this Contract, by not less than thirty (30) days' written notice to the USF, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (c) of this Clause 2.6.2:

- (a) If the USF fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clause GC 7 hereof within forty-five (45) days after receiving written notice from the Consultant that such payment is overdue.
- (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) days.
- (c) If the USF fails to comply with any final decision reached as a result of arbitration pursuant to Clause GC 7 hereof.

2.6.3 Payment upon Termination

Upon termination of this Contract pursuant to Clauses GC 2.6.1 or GC 2.6.2, the USF shall make the following payments to the Consultant:

- (a) payment pursuant to Clause GC 5 for Services satisfactorily performed prior to the effective date of termination;
- (b) except in the case of termination pursuant to paragraphs (a) through (c), and (f) of Clause GC 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract.

3. OBLIGATIONS OF THE CONSULTANT

3.1 General

3.1.1 Standard of Performance.

The Consultant shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the USF, and shall at all times support and safeguard the USF's legitimate interests in any dealings with Sub-Consultants or third Parties.

3.2 Conflict of Interest

The Consultant shall hold the USF's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.

3.2.1 Consultants Not to Benefit from Commissions, Discounts, etc.

The payment of the Consultant pursuant to Clause GC 5 shall constitute the Consultant's only payment in connection with this Contract or the Services, and the Consultant shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Consultant shall use their best efforts to ensure that the Personnel, any Sub-Consultants, and agents of either of them similarly shall not receive any such additional payment.

3.2.2 Consultant and Affiliates not to be Otherwise Interested in Project

The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-Consultants and any entity affiliated with such Sub-Consultants, shall be disqualified from providing goods, works or services (other than consulting services) resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.

3.2.3 Prohibition of Conflicting Activities

The Consultant shall not engage, and shall cause their Personnel as well as their Sub-Consultants and

their Personnel not to engage, either directly or indirectly, in any business or professional activities which would conflict with the activities assigned to them under this Contract.

3.3 Confidentiality

Except with the prior written consent of the USF, the Consultant and the Personnel shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant and the Personnel make public the recommendations formulated in the course of, or as a result of, the Services. This Clause shall continue in force following the termination of this Contract.

3.4 Insurance to be taken out by the Consultants

The Consultant shall take out and maintain and shall cause any sub-consultants at their (or the Sub-Consultants', as the case may be) own cost but on terms and conditions approved by the USF, insurance against the risks, and for the coverage, as shall be specified in the SC; and (b) at the USF's request, shall provide evidence to the USF showing that such insurance has been taken out and maintained and that the current premiums have been paid.

3.5 Consultant's Actions Requiring USF's Prior Approval

The Consultant shall obtain the USF's prior approval in writing before taking any of the following actions:

- (a) entering into a subcontract for the performance of any part of the Services,
- (b) appointing such members of the Personnel not listed by name in Appendix C, and
- (c) any other action that may be specified in the SC.

3.6 Reporting Obligations

- (a) The Consultant shall submit to the USF the reports and documents specified in Appendix B hereto, in the form, in the numbers and within the time periods set forth in the said Appendix.
- (b) Final reports shall be delivered in CD ROM in addition to the hard copies specified in said Appendix.

3.7 Documents Prepared by the Consultant to be the Property of the USF

(a) All plans, drawings, specifications, designs, reports, other documents and software submitted by the Consultant under this Contract shall become and remain the property of the USF, and the Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the USF, together with a detailed inventory thereof.

(b) The Consultant may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SC.

3.8 Accounting, Inspection and Auditing

The Consultant (i) shall keep accurate and systematic accounts and records in respect of the Services hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time changes and costs, and the bases thereof, and (ii) shall periodically permit the USF or its designated representative and up to two years from the expiration or termination of this Contract, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the USF, if so required by the USF.

4. CONSULTANT'S PERSONNEL

4.1 Description of Personnel

The Consultant shall employ and provide such qualified and experienced Personnel and Sub-Consultants as are required to carry out the Services. The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Consultant's Key Personnel are described in Appendix C. The Key Personnel and sub-consultants listed by title as well as by name in Appendix C are hereby approved by the USF.

4.1.1 Removal and/or Replacement of Personnel

- (a) Except as the USF may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultant, such as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Key Personnel, the Consultant shall provide as a replacement a person of equivalent or better qualifications.
- (b) If the USF finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultant shall, at the USF's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the USF.
- (c) The Consultant shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

5. PAYMENTS TO THE CONSULTANT

5.1 Lump-Sum Payment

The total payment due to the Consultant shall not exceed the Contract Price Rs. 1,600,000/- which is an all inclusive fixed lump-sum covering all costs required to carry out the Services described in Appendix A. The Contract Price may only be increased above the amounts stated in Clause 5.2 if the Parties have agreed to additional payments in accordance with Clause 2.4.

5.2 Contract Price

The price payable in Pakistani Rupees is set forth in the SC.

5.3 Terms and Conditions of Payment

Payments will be made to the account of the Consultant and according to the payment schedule stated in Appendix-B. Unless otherwise stated in the SC, the first payment shall be made against the provision by the Consultant of an advance payment guarantee for the same amount, and shall be valid for the period stated in the SC. Such guarantee shall be in the form set forth in Appendix D hereto, or in such other form, as the USF shall have approved in writing. Any other payment shall be made after the conditions listed in the SC for such payment have been met, and the Consultant has submitted an invoice to the USF specifying the amount due.

6. GOOD FAITH

6.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

7. SETTLEMENT OF DISPUTES

7.1 Amicable Settlement

The Parties agree that the avoidance or early resolution of disputes is crucial for a smooth execution of the Contract and the success of the assignment. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

7.2 Dispute Resolution

Any dispute between the Parties as to matters arising out of or in connection with this Contract that cannot be amicably settled within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement through arbitration in accordance with the provisions of the Arbitration Act, 1940 (Act No.X of 1940) and the Rules made thereunder.

8. INDEMNITY

8.1 Except where arising from the negligence of USF or USF's employees, the Consultant shall indemnify USF in respect of any costs or damages howsoever arising out of or related to breach of warranty or representation, contract or statutory duty, or tortuous acts or omissions by

the Consultant or the Consultant's personnel or sub-contractors or any claims made against USF by third parties in respect thereof.

8.2 Clause 8.1 shall continue in force following the termination of this Contract.

9. LIMIT OF LIABILITY

9.1 Except where there has been misconduct, gross negligence, dishonesty or fraud on behalf of the Consultant or the Consultant's Personnel the Consultant's liability under this Contract shall be limited to the amount of the Contract Price.

10. ASSIGNMENT

10.1 The Consultant shall not, without the prior written consent of USF, assign or transfer or cause to be assigned or transferred, whether actually or as the result of takeover, merger or other change of identity or character of the Consultant, any of its rights or obligations under this Contract or any part, share or interest therein.

III. Special Conditions of Contract

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract					
1.4	• USFCO:	5 th Floor, Habib Bank Tower, Jinnah avenue, Islamabad				
	Attention:	Syed Asif Kamal				
	Telephone:	051-921 2308-9				
	Facsimile:	051-921 4261				
	Email:	asif.kamal@usf.org.pk				
	Consultant:	[Address],				
	Attention:	[Consultant Name]				
	Telephone:					
	Facsimile:					
	Email:					
{1.6}	This clause is Not Applicable	is clause is Not Applicable				
1.7	The Authorized Representatives are: For the USF: Syed Asif Kamal For the Consultant: [Consultants Authorized Person]					
2.1	The effective date for the contract shall be [day] [month] [year]					
2.3	The time period for completion of this consultancy service shall be [duration]					
3.4	This clause is not applicable.					
{3.7 (b)}	The Consulting Firm shall not use these documents and software for purposes unrelated to this Contract without the prior written approval of the USF.					
5.2	The amount in Pakistani Rupees is (Pak Rs.[Numbers][In Words])					
5.3	The clause may be read as					

"Payments will be made to the account of the Consultant and according to the payment schedule stated in Appendix-B"
Rest of the clause is not applicable.

IV. Appendices

APPENDIX A

DESCRIPTION OF SERVICES

The Consultant hereby agrees to provide the technical services as given in scope of work (SOW) below and attached terms of reference (ToR). Further all the following information is to be collected City/Town-wise.

- 1. Towns in the Region, with names, population, etc.
- 2. Areas within towns of the region where broadband might be available along with details of number of broadband connections operator-wise and broadband technology used.
- 3. Details of Telecom/IT Infrastructure available town-wise, namely
 - a. Names and number of narrow band dialup service providers.
 - b. Number of narrow band dialup connections.
 - c. Backhaul Optical Fiber availability
- 4. Names, addresses and GPS Coordinates of Higher Secondary Schools and Colleges (both public and private sector). Their number of students, teachers and details of computer labs such as number of PCs, networking and mode of internet connectivity.
- 5. Names, Addresses and GPS Coordinates of Vocational Institutes. Their number of students, teachers and details of computer labs such as number of PCs, networking and mode of internet connectivity.
- 6. Names, addresses and GPS Coordinates of Distance Learning Centers of Virtual University, Allama Iqbal Open University and other distance learning institutes, their number of students, teachers, existing mode of internet connectivity.
- 7. Names, addresses and GPS Coordinates of Hospitals, Basic Health Units, Health Care Centers (both public and private sector) and existing status of computerization, internet connectivity of Health Institutions, Telemedicine facilities etc.
- 8. Name, addresses and GPS Coordinates of Special Education Centers or other institutes for disabled (both public and private sector including NGOs), their number of students and teachers and existing mode of internet connectivity.
- 9. Names, addresses and GPS Coordinates of Libraries, details of computer centers such as number of PCs, networking and mode of internet connectivity.
- 10. Names and addresses of Cyber Cafes and organizations such as Post Offices, Nadra (Swift Centers, Kiosks, E-Sahulat Franchises), Police Stations, Courts, Bars Councils, and associations, Dist Govt. Offices, Education Offices and the similar, their existing IT infrastructure such as number of PCS, networking and mode of Internet/Intranet connectivity.
- 11. Names and addresses of PTCL's Main Switching Units (MSUs)/Remote Switching Units (RLUs) (with higher than 1000 lines capacity), their capacity and working connections.
- 12. Location/address and bandwidth/capacity of International Bandwidth providers' Nodes/Exchange Points, such as Information Technology Infrastructure (ITI) Node,

- /Pakistan Internet Exchage (PIE), TWA1 Nodes etc. Details of Backhaul connectivity of these Nodes such as bandwidth, technology and media reduncancy.
- 13. Availability of Co-Location Spaces, its size, availability of AC and DC power and generator backup at PTCL MSU/RLUs.
- 14. Submission of weekly progress reports to USFCo.
- 15. Submission of final report to USFCo

$\label{eq:appendix} \textbf{APPENDIX} \ \textbf{B} - \textbf{REPORTING} \ \textbf{REQUIREMENTS}$

APPENDIX C -KEY PERSONNEL AND SUB-CONSULTANTS

APPENDIX D – FORM OF BANK GUARANTEE FOR ADVANCE PAYMENT

Bank Guarantee for Advance Payment

	[Bank's Name, and Address of Issuing Branch or Office]
Beneficiary:	[Name and Address of USF]
Date:	<u> </u>
Furthermore, we underst	T GUARANTEE No.: tand that, according to the conditions of the Contract, an advance payment in figures] ([amount in words]) is to be made against an advance payment
entered into Contract No	I that [name of Consulting Firm] (hereinafter called "the Consultants") has o. [reference number of the contract] dated [insert date] with you, for the ription of Services] (hereinafter called "the Contract").
sum or sums not exceed receipt by us of your fit. Consultants are in breach the advance payment for It is a condition for any of	onsultants, we [name of Bank] hereby irrevocably undertake to pay you any ding in total an amount of [amount in figures] ([amount in words]) upon arst demand in writing accompanied by a written statement stating that the ch of their obligation under the Contract because the Consultants have used a purposes other than toward providing the Services under the Contract. I claim and payment under this guarantee to be made that the advance payment have been received by the Consultants on their account number [Bank].
payment repaid by the C be presented to us. This certificate indicating tha	of this guarantee shall be progressively reduced by the amount of the advance Consultants as indicated in copies of certified monthly statements which shall guarantee shall expire, at the latest, upon our receipt of the monthly payment at the Consultants have made full repayment of the amount of the advance by of, 2,
whichever is earlier. Conby us at this office on or [signature(s)]	nsequently, any demand for payment under this guarantee must be received before that date.

APPENDIX E



Universal Service Fund

(A company setup under Section 42 of the Companies Ordinance 1984)

Terms of Reference (ToR)

Consulting Services for USF Broadband Project

ID: USF/Broadband/CS-TOR/2008/02

Issued at Islamabad
24th Oct 2008

USFCo

Fifth Floor, HBL Tower, Jinnah Avenue,

Islamabad Pakistan Tel: 051-9212308 & 9212309

Fax: 051-9214261



Terms of Reference

1. INTRODUCTION

Broadband is an accelerator of economic development. There are significant economic benefits to using broadband technologies for many applications. With broadband access, worker productivity increases, jobs are created and wages grow. Broadband creates opportunities for bundling services and enables operators to offer more services to consumers at lower prices and create added efficiencies in both time and money. In addition, new or offshoot industries are created as a result of broadband. As broadband penetration rates grow, there will be a resulting demand for computers and home networking equipment, as well as wireless handheld devices and other equipment that facilitates broadband use. The economic benefits of broadband can also be attributed to indirect factors, including "increased e-commerce, reductions in commuting, increased consumption of entertainment and savings in healthcare as a result from sophisticated telemedicine." For the enterprise sector, the economic benefits result from efficiencies in the distribution of goods, services and information.

Despite the numerous advantages of broadband, a review of the present situation in Pakistan reveals that most of the country is un-served/under-served with regards to broadband and hence people living in these areas cannot avail the benefits of broadband.

In order to bridge this digital divide and extend the benefits of broadband to a larger population, USF Co has initiated a program to kick start broadband in un-served urban areas of Pakistan.

To collect information pertaining to broadband in urban areas of Pakistan, USF Co intends to carry out an on-ground study that will provide key broadband related information as detailed in the sections of documents that follow.

2. IMPORTANT DEFINITIONS

An **Urban Area** is defined as a Town where a Municipal Corporation or a Town Committee exits. A **Telecom Region** is defined as per definition provided by Pakistan Telecom Authority (PTA).

3. OBJECTIVES

The consultancy aims at collecting broadband and related data for the following Telecom Regions

- 1. GTR (Gujranwala Telecom Region)
- 2. HTR (Hazara Telecom Region)
- 3. MTR (Multan Telecom Region)
- 4. STR-V (Southern Telecom Region-V)
- 5. CTR (Central Telecom Region)
- 6. STR-I (Southern Telecom Region-I)



The objective is to assess the present scenario of internet (narrowband and broadband) availability, i.e. number of Internet subscribers and connections in towns, assess town/city-wise requirement of Broadband and identify the institutional beneficiaries of broadband in unserved/under-served urban areas.

4. SCOPE OF WORK

The consultancy requires the information to be collected and then presented in the form of a comprehensive analysis and report, Telecom Region wise. For collection of data only authentic sources must be consulted and relied upon. Where existing data is not available from a reliable source, the data must be collected in a methodical way using all possible means, such as door to door visits, in person meetings, telephonic contacts, visits to PTCL exchanges/ISP's etc. The following City/Town-wise information is to be collected for the Telecom Regions mentioned above and listed in Annex I.

5. DETAIL STUDY PERTAINING TO TELECOM REGIONS

- 1. Towns in the Region, with names, population, etc.
- 2. Areas within towns of the region where broadband might be available along with details of number of broadband connections operator-wise and broadband technology used.
- 3. Details of Telecom/IT Infrastructure available town-wise, namely
 - a. Names and number of narrow band dialup service providers.
 - b. Number of narrow band dialup connections.
 - c. Backhaul Optical Fiber availability
- 4. Names, addresses and GPS Coordinates of Higher Secondary Schools and Colleges (both public and private sector). Their number of students, teachers and details of computer labs such as number of PCs, networking and mode of internet connectivity.
- 5. Names, Addresses and GPS Coordinates of Vocational Institutes. Their number of students, teachers and details of computer labs such as number of PCs, networking and mode of internet connectivity.
- 6. Names, addresses and GPS Coordinates of Distance Learning Centers of Virtual University, Allama Iqbal Open University and other distance learning institutes, their number of students, teachers, existing mode of internet connectivity.
- 7. Names, addresses and GPS Coordinates of Hospitals, Basic Health Units, Health Care Centers (both public and private sector) and existing status of computerization, internet connectivity of Health Institutions, Telemedicine facilities etc.
- 8. Name, addresses and GPS Coordinates of Special Education Centers or other institutes for disabled (both public and private sector including NGOs), their number of students and teachers and existing mode of internet connectivity.
- 9. Names, addresses and GPS Coordinates of Libraries, details of computer centers such as number of PCs, networking and mode of internet connectivity.
- 10. Names and addresses of Cyber Cafes and organizations such as Post Offices, Nadra (Swift Centers, Kiosks, E-Sahulat Franchises), Police Stations, Courts, Bars Councils, and associations, Dist Govt. Offices, Education Offices and the similar, their existing IT



- infrastructure such as number of PCS, networking and mode of Internet/Intranet connectivity.
- 11. Names and addresses of PTCL's Main Switching Units (MSUs)/Remote Switching Units (RLUs) (with higher than 1000 lines capacity), their capacity and working connections.
- 12. Location/address and bandwidth/capacity of Bandwidth providers' Nodes/Exchange Points, such as Information Technology Infrastructure (ITI) Node, /Pakistan Internet Exchange (PIE), TWA1 Nodes etc. Details of Backhaul connectivity of these Nodes such as bandwidth, technology and media redundancy.

6. **DELIVERABLES**

The Consultants/Consultancy firms will submit a comprehensive document, providing collected data as mentioned under "Scope of Work" in an organized format. It should provide:

- 1. Methodology adopted for collection of each type of data.
- 2. Detailed information, in tabular form, formatted as prescribed in Annex-II (where ever applicable).
- 3. Summary information of the collected data in tabulated/graphical form.
- 4. Descriptive items narrated with suitable details/diagrams/charts etc.
- 5. Sample survey forms to be used for collecting the above mentioned data to assess the broadband demand/penetration city/ town wise.

7. OBLIGATIONS OF THE CONSULTANT

- **1.** USFCo will nominate a Project Manager to liaise with the Consultant. The Consultant shall work in very close collaboration with the Project Manager, exchange information regards progress of the consultancy and takes his advice where ever required.
- **2.** The consultant will sign a Non Disclosure Agreement with USFCo and will treat all USF data as highly classified.
- **3.** The consultant will produce original work and will utilize maximum resources to ensure accuracy and speed of data/information collection.
- **4.** All published/web sources utilized will be clearly stated/declared.

5. TIME FRAME

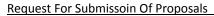
- 1. The expected time required for the said consultancy is **08 (eight) weeks**. The exact duration however may be decided at the time of signing of contract between USF Co and the Consultant.
- 2. Incase of delay in delivering the deliverables, a penalty of 0.5% per week or part of the delayed week will be imposed on the contractor.
- 3. The Consultant shall submit weekly reports regarding progress of the assignment.
- 4. The Report shall be considered final, after it has been accepted by USF Co and a certificate issued in this regards.



ANNEX I

S/No	Telecomm Region	Districts	Distt. Population (Urban) ¹
		Badin	
		Dadu	
		Hyderabad	
	CTD I	Mirpur Khas	4.026.000
1	STR I	Sanghar	4,036,000
		Tharparkar	
		Thatta	
		Umer Kot	
		Ghotki	
		Jacobabad	
		Khairpur	
	CTD 1/	Larkana	2 524 000
2	STR V	Naushahro Feroze	3,534,000
		Nawabshah	
		Shikarpur	
		Sukkur	
		Abbottabad	
2	HTR	Batagram	244 000
3		Dassu	311,000
		Haripur	
	CTR	Kasur	
		Okara	
4		Pakpattan	3,229,000
		Sahiwal	
		Sheikhupura	
	GTR	Gujranwala	
		Gujrat	
5		Hafizabad	4 745 000
5		Mandi Bahauddin	4,745,000
		Narowal	
		Sialkot	
		Bahawalnagar	
6	MTR	Bahawalpur	6,492,000
U	IVIIN	Dera Ghazi Khan	0,492,000
		Khanewal	

¹ Population Census Organization (PCO), Govt of Pakistan



	1
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	Leiah	
	Lodhran	
	Multan	
	Muzaffargarh	
	Rahim Yar Khan	
	Rajanpur	
	Vehari	
Total		22,347,000



ANNEX II

	[INSTITUTION CATEGORY e.g. HIGHER SECONDARY SCHOOLS AND COLLEGES etc]									
S/No	Districts	Towns	Name	Address	No of PCs	Networked	Connectivity	Data Rate	Latitude	Longitude
			[Name]	[Address]	[Number]	[LAN etc or Not Networked]	[DSL/WiMax/Dialup etc]	[]Kbps		
1		[City/Town Name 1]	[Name]	[Address]	[Number]	[LAN etc or Not Networked]	[DSL/WiMax/Dialup etc]	[]Kbps		
		[City) Town Name 1]	[Name]	[Address]	[Number]	[LAN etc or Not Networked]	[DSL/WiMax/Dialup etc]	[]Kbps		
			[Name]	[Address]	[Number]	[LAN etc or Not Networked]	[DSL/WiMax/Dialup etc]	[]Kbps		
2	[Name]	[City/Town Name 2]	[Name]	[Address]	[Number]	[LAN etc or Not Networked]	[DSL/WiMax/Dialup etc]	[]Kbps		
3		[City/Town Name 3]	[Name]	[Address]	[Number]	[LAN etc or Not Networked]	[DSL/WiMax/Dialup etc]	[]Kbps		
4		[City/Town Name 4]	[Name]	[Address]	[Number]	[LAN etc or Not Networked]	[DSL/WiMax/Dialup etc]	[]Kbps		
5		[City/Town Name 5]	[Name]	[Address]	[Number]	[LAN etc or Not Networked]	[DSL/WiMax/Dialup etc]	[]Kbps		
6		[City/Town Name 6]	[Name]	[Address]	[Number]	[LAN etc or Not Networked]	[DSL/WiMax/Dialup etc]	[]Kbps		



APPENDIX F

USF Payment Schedule

- 1. The total amount to be paid by USF will be disbursed in specific installments in accordance with this schedule of payments.
- 2. All payments shall be made in PKR.

	Project Implementation Milestone	Installment Payable (Percentage of total amount)	Total Amount to be paid
1	Mobilization advance; payable within seven (07) business Days of award of contract against a bank guarantee/insurance guarantee of the similar amount (to remain valid till the end of the last Project Implementation Milestone)	Up-to 40%	PKR [xxx]
2	Submission and acceptance of report	Balance Payment	PKR [xxx]