Pre-Feasibility Study

CALL CENTER

(In Bound Call and Support Center)



Small and Medium Enterprise Development Authority Government of Pakistan

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Table of Contents

1	INTRODUCTION TO SMEDA	4
2	PURPOSE OF THE DOCUMENT	4
3	CRUCIAL FACTORS & STEPS IN DECISION MAKING FOR INVESTMENT	4
4	PROJECT PROFILE	5
	4.1 Opportunity Rationale	5
	4.2 PROJECT BRIEF	
	4.3 MARKET ENTRY TIMING	
	4.4 PROPOSED BUSINESS LEGAL STATUS	
	4.5 PROJECT CAPACITY AND RATIONALE	
	4.6 Project Investment	
	4.7 Proposed Product Mix	
	4.8 RECOMMENDED PROJECT PARAMETERS	
	4.9 PROPOSED LOCATION	7
5	SECTOR & INDUSTRY ANALYSIS	7
	5.1 Sector Characteristics	7
	5.2 SUB SECTOR INFORMATION	
	5.2.1 Sub sector Performance	
	5.2.2 Government Policy Direction	
	5.3 LEGAL ISSUES REGARDING INDUSTRY	
	5.3.1 Pakistan Software Export Board Registration	9
	5.3.2 Registration with PTCL for provision of Bandwidth Facility	11
6	MARKET INFORMATION	12
	6.1 Market Potential	12
	6.2 TARGET CUSTOMERS	12
7	PRODUCTION PROCESS	13
	7.1 Process Flow	13
	7.2 Service Mix Offered	13
	7.3 TECHNOLOGY AND PROCESSES	13
	7.3.1 Technology/Process Options	
	7.3.2 Machinery & Office Equipment Requirement	14
8	LAND & BUILDING REQUIREMENT	16
	8.1 UTILITIES REQUIREMENT	16
	8.2 SUITABLE LOCATION	
9	HUMAN RESOURCE REQUIREMENT	17
10) FINANCIAL ANALYSIS	10
10		
	10.1 INITIAL PROJECT COST	
	10.2 PROJECTED INCOME STATEMENT	
	10.3 PROJECTED BALANCE SHEET	
11		
	Table 11-1 Revenue Assumption	23

LIST OF MAG	CHINERY & SOFTWARE SUPPLIERS	26
ANNEXURE -	I	25
11.1 Орг	ERATIONAL ASSUMPTIONS	24
TABLE 11-5	Cash Flow Assumptions	24
TABLE 11-4	FINANCIAL ASSUMPTION	24
TABLE 11-3	OPERATING EXPENSE ASSUMPTIONS	23
	EXPENSES ASSUMPTION	



1 INTRODUCTION TO SMEDA

Small and Medium Enterprise Development Authority (SMEDA) was established with the objective to provide fresh impetus to the economy through the launch of an aggressive SME support program.

Since its inception in October 1998, SMEDA had adopted a sectoral SME development approach. A few priority sectors were selected on the criterion of SME presence. In depth research was conducted and comprehensive development plans were formulated after identification of impediments and retardants. The all-encompassing sectoral development strategy involved recommending changes in regulatory environment by taking into consideration other important aspects including finance, marketing, technology and human resource development.

SMEDA has so far successfully formulated strategies for sectors including fruits and vegetables, marble and granite, gems and jewelry, marine fisheries, leather and footwear, textiles, surgical instruments, transport and dairy. Whereas the task of SME development at a broader scale still requires more coverage and enhanced reach in terms of SMEDA's areas of operation.

2 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the study covers various aspects of project concept development, start-up, production, marketing, finance and business management. The document also provides sectoral information, brief on government policies and international scenario, which have some bearing on the project itself.

This particular pre-feasibility is for an In Bound Call and Support Center which is an important segment of growing IT sector. Before studying the whole document one must consider following critical aspects, which forms the basis of any investment decision.

3 CRUCIAL FACTORS & STEPS IN DECISION MAKING FOR INVESTMENT

Before making any investment decision, it is advisable to evaluate the associated risk factors by taking into consideration certain key elements. These may include availability of resources, academic knowledge, past experience and specific managerial and technical skill set.

A successful call center will employ persons with a minimum of good English speaking ability and good English listening comprehension; basic skills in computers and Internet such as e-mail, chat programs, and web browsing; and a polite and confident attitude toward customers. The ideal back office representative will have all of the above capabilities, but he is also a self-motivated initiative taker. He will have a good command of English (writing, reading and comprehension), complete understanding of English idioms and different types of American/Australian slang, and have a will to be persistent worker who is caring, flexible, observant, and assumptive with each customer. Majority of his customers will be well informed who would expect respect. One of the major



concerns will be if the operator will be able to adjust to changes in technology as well as the products and services he will offer. Hence the major success factors are:

- 1. Investment on staff training pays, staff is the major factor in service sector.
- 2. For seamless service, a good bandwidth of minimum 2Mbp is recommended. Although it adds huge cost to the total cost of project how ever for continuous services to the clients it is highly recommended. It is also recommended to have a VSAT backup plan for the call center.
- 3. Choice of good equipments is critical for better voice quality: remember good quality service always pays.
- 4. Dependence on one big client is like driving a car without a spare wheel. In case of disaster nothing can be done, hence it is highly recommended to get at least two clients before starting any capital layout. It is also advised to increase the market size to USA/EU/Australia to best suit the available resources. A continuous marketing effort to increase number of clients is essential for the business.

4 PROJECT PROFILE

4.1 Opportunity Rationale

In the year 2008, major research firms predicted that by 2008-09 approximately US\$62 billion would be spent on call center services worldwide and it will be US\$ 148 billion in 2012. India was already employing 16,000 personnel for USA companies two years ago with the claim that Indian call center agents are more reliable and skilled and can operate at a much lower cost per transaction than USA call centers. Pakistan is an excellent example of a nation of many extremely fluent English-speaking and Internet literate people who have the future-thinking entrepreneurial attitude needed by USA/EU/Australian companies looking for outsourcing their customer support, technical support, telemarketing, accounting and more. Internet is affordable, and bandwidth is available at subsidized rates. Such encouragements can play a major role in acquiring business in this sector.

A few of the basic reasons that make Pakistan a better choice for Call centers are:

- Pro- active Government policies encouraging growth in business process outsourcing (e.g. Software technology parks, subsidized rates of bandwidth & internet connectivity).
- 110 universities are offering IT/CS courses.
- Huge talent pool, with strong technical background (24 million graduates, over 0.5 million graduates joining the workforce every year).
- Labor rate is cheap (i.e. employees with the same skills set can be hired at a much lower cost as compared to places like USA, Canada & Europe).
- A virtual 12-hour time zone difference with the USA and other markets for call center services is in Pakistan's favor, an added attraction for end users and for call centers operators.

4.2 Project Brief

Call Center Definition: "A call center is a physical environment dedicated to servicing and interacting with customers or potential customers. It is comprised of agents whose



primary dedicated function is to handle inbound and outbound traffic via the telephone and other increasingly available sophisticated channels"

Concept & Configuration: Call centers are dependent on telephony-based equipment that aggregates incoming calls, distributes them over a group of customer's service representatives (CSRs) and queues the calls when necessary. The access to call centers is through 0800 free phone numbers. The typical services are airline booking/confirmation, help line, banking, hotels, reservations, medical prescription entries, insurance claims and data entries etc. The customer calls are routed to the call center through VoIP (Voice over Internet Protocol) technology to overseas destination where trained operators respond to the inquiries of the customers. The customer is oblivious to the fact that operator attending the call is located in an overseas destination. The service requires quick response, high quality communication links and efficient handling without any noticeable time delay.

4.3 Market Entry Timing

Pakistan is among the ten most populous countries in the world with a population base of approximately 165 million. The country has undergone major economic transformation from a regulated system to one, which has seen approximately 15 years of de-regulation and liberalization and improvements in social and economic indicators across the board. The GNP per capita is US\$ 2,170 per annum, which translates into competitive human resource cost structure for this industry and enables the businesses in call center domain to be internationally competitive.

4.4 Proposed Business Legal Status

An enterprise can be a proprietorship or a partnership and even it can be registered under company law with Securities and Exchange Commission of Pakistan. Selection totally depends upon the choice of the entrepreneur. As per the size of the call center discussed in this report a sole proprietorship or partnership is recommended.

4.5 Project Capacity and Rationale

There is a huge pool of well-educated, English-speaking, people-friendly citizens of Pakistan, that makes Pakistan the ideal choice for call center for different locations all around the world. The skilled human resource, Internet, VoIP long distance calling solution, and encouragement by the government can make Pakistan as preferred call center choice, a reality.

The suggested size of the call center is 33 seats (extendable to 36) with following configurations.

- VoIP based Voice Technology with router switching.
- Linux based servers, and LAN based Network
- Soft-PBX exchange (i.e. Software based) for call routing on network
- Email and live chat facility for customers along with voice

4.6 Project Investment

The total project cost will be Rs. 12.52 Million Out of which 50% will be financed by bank. A total sum of about Rs.2,274,233 is required as working capital.



Table 4-1: Financing Plan

Description	Amount
Sponsor's Equity	6,262,238
Bank's Finance	6,262,238
Total Project Cost	12,524,475

4.7 Proposed Product Mix

This will include inbound calls, web based chat for clients, e-mail service and customer support (order taking, customer enquires, order tracking, etc.)

4.8 Recommended Project Parameters

Table 4-2: Project Parameters

Capacity	Human Res	source Tech	nology/Machinery	Location
33 seats	59	Foreign / Local Mix		Urban Cities
Financial Summary				
Project Cost	IRR	NPV	Payback Period	Cost of Capital(Wacc)
12.52 Million	34.75%	17.58 M	3.13 Years	20%

4.9 Proposed Location

The proposed location for call center business is one from three major cities Lahore, Karachi and Islamabad.

5 SECTOR & INDUSTRY ANALYSIS

5.1 Sector Characteristics

The Pakistani IT industry centers on a strong national revolution towards developing the country as a major player in the international forum. Government support programs coupled with an established private sector are creating many opportunities for realizing this goal. IT professionals trained in a variety of disciplines from abroad and locally are applying their innovative ideas to maximize the benefit obtained from the information revolution. More and more international companies are seeking solutions from Pakistani professionals, to remain competitive in the global economy.

The biggest growth factor in Pakistan is the domestic sectors where increasing number of companies are adopting technology products developed locally. E-commerce and enterprise wide systems are fast growing with more than 2,000 websites, more then 1,306 registered IT and ITES companies having more then USD 1.4 Billion exports and has more then 61.8% annual growth rate. As total market size of IT and ITES sector is USD\$ 2.8 Billion in 2005-06, so major share of services is exported. This sector is also attracting foreign companies to invest in Pakistan due to low labor cost. Currently more then 60 foreign companies are working in this sector. This sector showed tremendous growth in last few years. This growth is due to relaxed government policy and tax holiday.



5.2 Sub sector Information

IT enabled services are a market of the future. The call center business in the past decade has increased dramatically all over the world. Pakistan offers state of the art technology and infrastructure for establishing a world-class call centre. Companies in Pakistan are developing hardware and software at lower cost than our competitors. Our trained professional call centre operators are techno-literate individuals and undergo special language training courses to ensure that callers are unable to detect that they are talking to someone in another part of the world. The number of Call Centers / Support Centers is increasing year by year at a compound growth rate of 48% p.a. currently there are about 635 call center registered with PSEB.

Call Centers in Pakistan	635
Islamabad/Rawalpindi	158
Lahore	224
Karachi	234
Others	19

5.2.1 Sub sector Performance

The Call Center is an IT enabled service which is gaining high attention in modern corporate culture and corporate governance. This sector is capable of earning multi million dollar export revenues to Pakistan. Though the current contribution of IT sector is very negligible but it has the potential to contribute significantly to GDP of our economy.

Table 5-1: Regional Comparison in Call Center Growth¹

Country	Total seats 2003	Total seats 2004	% Growth	Total Seats 2005	% Growth
China	38,000	53,500	41%	85,000	58%
Hong Kong	10,000	10,700	7%	12,700	18%
India	96,000	158,000	65%	195,000	23%
Pakistan	500	3,000	500%	8,000	266%

5.2.2 Government Policy Direction

Government of Pakistan has announced policy for the establishment of Call Centers in Pakistan to provide service to offshore companies. The policy includes Tax Holidays, preferred bandwidth provision on lower rates, facility of half-circuit bandwidth and permission to have full duplex VSAT based satellite back up for call centers alone.

- 10 years complete tax holiday
- 100% ownership for foreign entrepreneurs with investment.
- 100% repatriation of profit for foreign owners



¹ IT Report By Expert Advisory Cell, Ministry of Industries

- One stop /one window approval process
- Subsidized office space in Technology Parks in Islamabad, Lahore and Karachi.
- Subsidized Bandwidth Cost for Call Center Operators.
- Low cost financial assistance for IT ventures creating jobs and foreign exchange.

5.3 Legal Issues Regarding Industry

5.3.1 Pakistan Software Export Board Registration

PSEB is helping to pave the way for Pakistani IT, and IT-enabled Service (ITeS) companies to claim a larger share of the international software and services market. It is mandatory for all IT and IT-enabled Services companies to register with Pakistan Software Export Board. Software and service companies operating in Pakistan must be registered with PSEB in order to benefit from its offered services. Three step registration process is given below:

Step 1	Fill the Registration Form (available at www.pseb.org.pk)
Step 2	Attached the complete
Step 3	Submit the completed forms along with an annual registration fee of Rs. 5,000/-(Rupees five thousand only). by demand draft/pay order made payable to the Pakistan Software Export Board (PSEB)

List of Documents Required for Company Registration at PSEB

For Private Limited Companies

- Duly filled registration form
- Visiting Cards of Key Personals(Optional)
- Memorandum and Articles of Association (SECP certified copy)
- Certificate of Incorporation (SECP certified copy)
- NTN Certificate of the company
- CNIC of all Directors/Shareholders
- Copy of Passport (for Directors with foreign nationality)

For Branch Office of Foreign Companies

- Duly filled registration form
- Visiting Cards of Key Personals(Optional)
- Memorandum and Articles of Association (SECP certified copy)
- Certificate of Incorporation (SECP certified copy)
- NTN Certificate of the company
- CNIC of all Directors/Shareholders
- Copy of Passport (for Directors/Shareholders with foreign nationality)

For Registered Firms

• Duly filled registration form



- Visiting Cards of Key Personals (Optional).
- Attested copy of the Partnership Deed.(In case of Partnership firm).
- Certificate of Registration (Registrar Office certified copy).
- Bank Statement of the preceding six months or Bank Account Certificate (Only company account with company name would be accepted. In case of new account, Bank Certificate is also acceptable)
- NTN Certificate of the firm
- Copy of CNIC of Director(s) / Owner(s) / Partner (s)
- Copy of Passport (for Director(s) / Owner(s) / Partner (s) with foreign nationality)

For Partnership Firms

- Duly filled registration form
- Visiting Cards of Key Personals (Optional)
- Attested copy of the Partnership Deed.
- Bank Statement of the preceding six months or Bank Account Certificate (Only company account with company name would be accepted. In case of new account, Bank Certificate is also acceptable)
- NTN Certificate of the firm
- Copy of CNIC of all Partners
- Copy of Passport (for Partners with foreign nationality)

For Sole Proprietorship Firms

- Duly filled registration form
- Visiting Cards of Key Personals(Optional)
- Bank Statement of the preceding six months or Bank Account Certificate (Only company account with company name would be accepted. In case of new account, Bank Certificate is also acceptable)
- NTN Certificate of the firm
- Copy of CNIC of the Proprietor

Call Center Registration

- It is a pre-requisite condition that the companies that have established call center operations must first register themselves with PSEB, and simultaneously post the Call Center Registration Form as well. The registration fee for new call centers is also Rs. 5,000/- (Rupees five thousand only)
- Registration with PSEB is mandatory for companies intend to established call center operations and wish to avail PTCL's services.
- Prior to operation, provisional call center registration will initially be granted by PSEB. It will be valid for 60 days, and can be extended upon formal written request.
- A physical verification visit of operational call center would be planned on request and after successful verification; a registration certificate with the validity of one year is issued. The verification procedure is repeated at the time of renewal of call center but the duration of validity of registration is assigned for two years. The renewal fee is Rs. 10,000/- (Rupees ten thousand only)



• Please note that call centers having valid PSEB membership would be renewed only.

Duly filled registration form for Call Center along with new registration fee of Rs. 5,000/- (Rupees five thousand only) by demand draft/pay order made payable to the Pakistan Software Export Board (PSEB). Application form for both company registration and call center can be downloaded from www.pseb.org.pk

5.3.2 Registration with PTCL for provision of Bandwidth Facility

Application forms are available in the office of Manager Corporate Customer Centre Karachi, Lahore and Islamabad. These forms are also available on the website of PTCL (www.ptcl.org.pk). Photocopy of the form can also be used for registration. Applications will be submitted along-with photocopies of the following documents:

- A NIC/Company Registration
- B National Tax Number
- C Name of partner (s) with contract specifying requirements and intent at foreign end.

a) Provisioning of Facility

Initial demand note will be issued by Manager Corporate Customer Care (CCC) who will coordinate for provisioning of the facility on receipt of paid copy of Demand Note.

b) Bandwidth

For international call centers, bandwidth is available on half-circuit basis as well as on public Internet backbone. The call center operator will arrange the far end half-circuit through the foreign operator. The bandwidth tariff of software exporters will be applicable.

c) Billing

Manager Corporate Customer Care (CCC) who will act as primary interface with the call center operator for all telecommunication requirements will coordinate with offices responsible for preparation and raising the bills and ensure that billing is done regularly for international connectivity/PRIs.

d) Customer Facilitation

Code 128 is available for registration of faults of ISP/Data/Software exporters at Karachi, Lahore and Islamabad. DE IT Maintenance Support will be responsible for rectification of faults and satisfactory service to the valued customers.

In case of regions, other than Karachi, Lahore & Islamabad, DE's nominated in each region by the respective GM's to handle ISP/Data Software demand will also handle this demand following above laid down procedure.



6 MARKET INFORMATION

6.1 Market Potential

With an estimated 5,000 Telemarketing, Tele services agencies and Call Center providers in the United States and over 800 in Australia, the search for a partner can be time consuming and frustrating this posse a huge market potential in coming days. As per a market study the outsourced inbound U.S. call center industry was worth over \$10 billion and was around \$35 billion in 2005. The business potential lies in U.S.A., UK, Canada and other Western economies. It is estimated that approximately 22 notable organizations and another 50 less known call centers operate in Pakistan, operating 5-100 seats. Of all the call centers, 60% operate less than 20 seats, 30% operate 20-50 seats and 10% operate 51-100 seats. There are Government sponsored plans to set up call center hotel of 1500-2000 seats where the infrastructure would be provided and the seats could be leased to various users with their own management. The call center industry in Pakistan is still very young with 80% of such operations having set up in the last 4 years.

6.2 Target Customers

The potential customers are as follows:

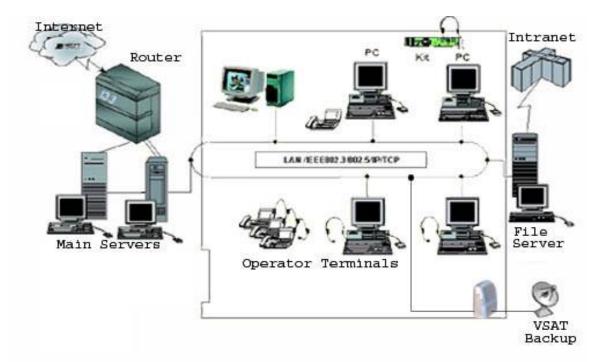
- Large Telemarketing companies
- Companies with high customer interaction i.e. service providers like banks, hotels etc.
- Large companies with high volume of inbound calls like airline booking/confirmation, help lines for insurance companies, mobile etc.
- Marketing Companies



7 PRODUCTION PROCESS

7.1 Process Flow

Process Flow Diagram:



7.2 Service Mix Offered

The proposed business model is to provide Inbound Call and support center with possibility of online web based chats and emails inquiry backup. This service mix is the best combination for small to medium scale call center.

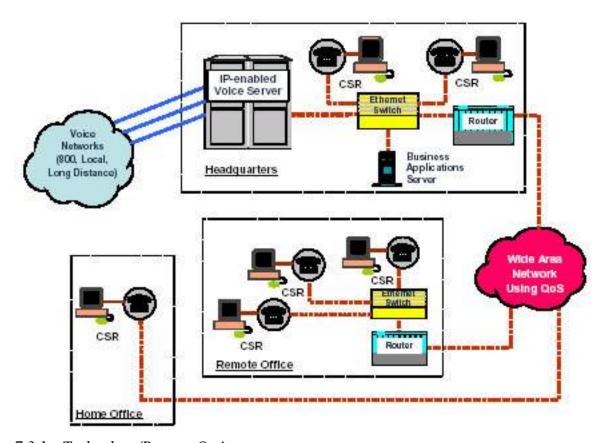
7.3 Technology and Processes

- The proposed technology to be used is the VoIP based Call routing with Sea-Me-We-3 based Fiber optic full duplex bandwidth (2Mbp). VSAT Satellite Bandwidth can be used as backup for continued service.
- The PBX exchange is replaced with soft (PC based) software telephone exchange (http://www.digium.com) to bring in extra features like IVR and Advanced call waiting and to bring in cost efficiency.
- The server software recommended are all Linux based including the email exchange.
- Network load management is also a crucial factor, for more convenient management
 of network Eddie Network Management System is recommended for more info
 please visit http://eddie.sourceforge.net.
- For recording of voice data on system servers NAS is recommended for more info please visit http://radscan.com/nas.html The network over view is as follows:



The Diagram is only subjective to operational and cost constraints. For further indepth knowledge of technologies available and technological tech papers please visit http://www.bitpipe.com/rlist/term/Call-Centers.html?src=google.

Voice Flow Diagram:



7.3.1 Technology/Process Options

As other technological solutions are also available in the market but the suggested solution is proven to be better in both quality and cost effectiveness. The alternative modes can be the lowest cost solutions like Superm Fone which gives access to the service without even using any infrastructure except the Bandwidth. But of course it will not give the scalability and the quality international companies want. One other option can be to use hardware based equipment like PBX exchange and a voice compression codec like G.711, but this is not cost effective and is only suitable for large call center with more than 100 seats capacity.

7.3.2 Machinery & Office Equipment Requirement

The list of the network equipment and office equipment required to setup a call center is given, in detail, as follows:

Table 7-1: Call Center Network and Related Equipment Requirement

Description	Units	Price/ Unit	Total Cost
Telco Grade Server (VoIP - PRI Based Server)	1	4,000,000	4,000,000
Catalyst Switch (Cissco)	1	125,000	125,000
FXO card	1	30,000	30,000
Internet Server (LAN Server)	1	500,000	500,000
CRM Software & Server	1	1,500,000	1,500,000
Router (Cissco)	1	255,920	255,920
Manageable Network Switch (Ports 24)	1	125,000	125,000
Computers, LCDs, Headsets, UPS (Technical Team)	16	62,500	937,500
LAN Equipment		20,000	20,000
Cable, Cable termination & Switch ²		-	-
Misc. Equipment			50,000
Total			7,543,420

Table 7-2: Office Equipment Requirement

Description	Units	Price/ Unit	Total cost
Furniture (Technical Team ³ & Management Office)	-	-	551,000
Air Conditioners (1, 1.5 and 2 Ton) ⁴ including installation	-	-	288,200
Laptop (Manager)	1	70,000	70,000
Computer & UPS (Other staff)	4	40,000	160,000
Printer	1	15,000	15,000
Telephone Sets	4	1,500	6,000
Fax Machine	1	10,000	10,000
Total			1,100,200
Generator	1	925,000	925,000
Total			2,025,200

⁴ The management team will be allotted 1 Ton air conditioners whereas the 2 ton units will be installed in the technical team hall.



15

² Cable, Cable termination and Switch cost will be borne by the service provider. The fiber optic service charges are negotiable.

³ Technical team comprises of Operators, Supervisors/Team leaders and Evaluators.

Table 7-3: Technical Information

Description	Assumption	Annual Growth
Router	Cisco	N/A
Tech. Standard (Voice Codec)	G.729A	N/A
VoIP - PRI Based Server	Telco Grade Server	
CRM Software & Server	Linux Based (Open Source)	N/A
Backup Bandwidth	I MBps VSAT*	N/A
Catalyst Switch	Cisco	N/A
PBX Exchange*	Software Based	N/A
Network Switch	(24 Ports) 3Com	N/A
VSAT Satellite Modem	Hughes/ViaSat*	N/A
VSAT Transceiver	Hughes/ViaSat*	N/A
VSAT Antenna and LNB	Local Manufactured*	N/A
LAN Cable	Lucent	N/A
Connectors etc.	Local Manufactured	N/A

^{*}Equipment can been used which is compatible with VSAT requirements. VSAT equipment can be used as back up. As in large size call Center, VSAT is used as back up for connectivity. Total cost for back up installation is USD 5000 and installation fee is USD 3000 for 1Mbps on C band.

8 LAND & BUILDING REQUIREMENT

Table 8-1: Rent Cost

Area	Rent Cost (Rs.)
1,250 Sq.ft	40,000/-

The required area for the proposed capacity of 33 seats is 800 Sq. Feet covered area for call operators and an additional 450 Sq. Feet for executive offices and meeting room etc. This space should be available in Lahore at around Rs.35, 000 – Rs.50, 000 per month.

8.1 Utilities Requirement

Telephone line all free of distortion, Electricity, Natural Gas and a clear rooftop (for the installation of VSAT equipment).

8.2 Suitable Location

Any location which has all the utilities required and is free of noise is suitable for this operation. Like in Lahore places like Allama Iqbal Town, New Garden Town, Muslim Town, and Defence Housing Society are recommended.



9 HUMAN RESOURCE REQUIREMENT

Following HR is needed for this project:

Table 9-1: Human Resource Requirement

Description	No of Employees	Salary/ month	Annual Salary
Floor Manager	1	50,000	600,000
Quality Evaluators	5	25,000	1,500,000
Supervisors/Team Leaders	3	35,000	1,260,000
Operators	36	21,000	9,072,000
Accounts Manager	1	45,000	540,000
Accounts Officer	3	20,000	720,000
Admin Officer	1	20,000	240,000
Network Administrator	2	20,000	480,000
Peon	3	6,500	234,000
Support Staff (Blue Boys)	2	6,500	156,000
Security Guard	2	8,000	192,000
Total	59		14,994,000

In most of the call centers in Pakistan, fixed salary varies and depends upon project nature. However 5-10% commission is given to CSRs which is not added to the cost of sales in this study.

10 FINANCIAL ANALYSIS

10.1 Initial Project Cost

Office Equipment	PKR.
Furniture	551,000
Air Conditioners	288,200
Laptop (Manager)	70,000
Computer & UPS (Other staff)	160,000
Printer	15,000
Telephone Sets	6,000
Fax Machine	10,000
	1,100,200
Generator	925,000
Network Installation & Other Related Equipment	
Telco Grade Server (VoIP - PRI Based Server)	4,000,000
Catalyst Switch (Cissco)	125,000
FXO card	30,000
Internet Server (LAN Server)	500,000
CRM Software & Server	1,500,000
Router (Cissco)	255,920
Manageable Network Switch (Ports 24)	125,000
Computers, LCDs, Headsets, UPS (Technical Team)	937,500
LAN Equipment	20,000
Cable, Cable termination & Switch	-
Misc. Equipment	50,000
	7,543,420
Pre-operational Expenses	681,623
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Working Capital Requirement	2,274,233
Total Project Cost	12,524,475
Financed By:	
Sponsors Equity (50%)	6,262,238
Bank Finance (50%)	6,262,238
	12,524,475
	12,02 1,170



Pre-Operational Expenses	PKR.
Setup Inspection and initial service cost (PTCL Cost)	40,000
1 Months Deposit of Bandwidth Fees (Security Deposit)	100,000
PSEB Fee for company and Call Center registration	10,000
Website development & year 1 hosting charges	50,000
Preliminary marketing expenses	50,000
Advance Rent	240,000
Prepaid Insurance	151,623
Operators training	40,000
VoIP license	-
Total	681,623

10.2 Projected Income Statement

Projected Income Sta	tement									
									Rs. In Thou	ısands
	Year - I	Year - II	Year - III	Year - IV	Year - V	Year - VI	Year - VII	Year - VIII	Year - IX	Year - X
Sales/Revenue	27,120	31,324	36,179	40,108	44,119	48,530	53,384	58,722	64,594	71,053
Cost of Sales:										
Operating expenses	20,155	21,158	22,685	24,672	27,094	29,894	33,210	37,024	41,393	46,388
Gross Profit	6,965	10,166	13,494	15,436	17,025	18,637	20,174	21,698	23,202	24,666
Operating Expenses:										
Administrative Expenses	3,621	4,025	4,476	4,932	5,426	5,968	6,565	7,221	7,609	8,370
Marketing Expenses	949	1,096	1,266	1,404	1,544	1,699	1,868	2,055	2,261	2,487
Operating Profit	2,395	5,044	7,752	9,100	10,055	10,970	11,741	12,421	13,332	13,809
Financial Charges	1,071	845	620	395	169	-	-	-	-	-
Profit before Taxation	1,324	4,199	7,132	8,705	9,886	10,970	11,741	12,421	13,332	13,809
Taxation	-	-	-	-	-	-	-	-	-	-
Profit after Taxation	1,324	4,199	7,132	8,705	9,886	10,970	11,741	12,421	13,332	13,809
Acc. Profit b/f	-	1,324	5,522	12,654	21,360	31,246	42,216	53,956	66,378	79,709
Un-appropriated Profit c/f	1,324	5,522	12,654	21,360	31,246	42,216	53,956	66,378	79,709	93,518

10.3 Projected Balance Sheet

										Rs. In Thousa	nds
	Year - 0	Year - I	Year - II	Year - III	Year - IV	Year - V	Year - VI	Year - VII	Year - VIII	Year - IX	Year - X
Tangible Fixed Assets	9,569	6,877	5,027	3,745	2,849	2,214	1,759	1,426	1,178	990	844
Preliminary Expenses	290	232	174	116	58	-	-	-	-	-	-
Current Assets:											
	-	-	-	-	-	-	-	-	-	-	-
Accounts Receivable		2,260	2,610	3,015	3,342	3,677	4,044	4,449	4,893	5,383	5,921
Pre-paid rent	240	264	290	319	351	387	425	468	514	566	-
Pre-paid insurance	152	-	-	-	-	-	-	-	-	-	-
Cash in Hand / Bank	2,274	3,213	7,734	14,572	22,683	31,713	42,821	54,553	66,857	79,986	94,148
	2,666	5,737	10,635	17,907	26,376	35,777	47,291	59,470	72,265	85,935	100,069
	12,524	12,846	15,836	21,768	29,283	37,991	49,050	60,896	73,443	86,925	100,912
Owners Equity:											
Capital	6,262	6,262	6,262	6,262	6,262	6,262	6,262	6,262	6,262	6,262	6,262
Accumulated Profit	-	1,324	5,522	12,654	21,360	31,246	42,216	53,956	66,378	79,709	93,518
Long Term Loan	6,262	3757	2505	1252	-	-	-	-	-	-	-
Current Liabilities: Current Portion											
of Long Term Loan	- 1	1,252	1,252	1,252	1,252	-	-	-	-	-	-
Accounts Payable		250	294	346	409	483	572	677	803	953	1,133
·	-	1,502	1,546	1,599	1,661	483	572	677	803	953	1,133
	12,524	12,846	15,836	21,768	29,283	37,991	49,050	60,896	73,443	86,925	100,912

10.4 Cash Flow Statement

										Rs. In Thous	anus
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Profit before Financial											
Charges & Taxation	-	2,395	5,044	7,752	9,100	10,055	10,970	11,741	12,421	13,332	13,809
Amortization	-	58	58	58	58	58	-	-	-	-	-
Depreciation	-	2,692	1,850	1,282	896	635	456	333	248	188	146
·	-	5,144	6,952	9,092	10,054	10,748	11,426	12,073	12,669	13,520	13,955
Working Capital Change	-	(1,883)	(333)	(381)	(297)	(295)	(318)	(341)	(366)	(391)	207
Cash form other Sources											
Owners	6,262	-	-	-	-	-	-	-	-	-	-
Bank Finance	6,262	-	-	-	-	-	-	-	-	-	-
_	12,524	-	-	-	-	-	-	-	-	-	-
Total Sources	12524	3262	6619	8710	9757	10452	11108	11732	12303	13129	14162
Applications:											
Fixed Assets	9,569	-	-	-	-	-	-	-	-	-	-
Preoperational Expenses	682	-	-	-	-	-	-	-	-	-	-
Working Capital	2,274	-	-	-	-	-	-	-	-	-	-
Re -Payment of Loan	-	2,323	2,098	1,872	1,647	1,422	-	-	-	-	-
L C Charges	-	-	-	-	-	-	-	-	-	-	-
Capital Investments	-	-	-	-	-	-	-	-	-	-	-
Tax	-	-	-	-	-	-	-	-	-	-	-
	12,524	2,323	2,098	1,872	1,647	1,422	-	-	-	-	-
Cash Increase/(Decrease)	-	939	4,522	6,838	8,110	9,031	11,108	11,732	12,303	13,129	14,162
Opening Balance	2,274	2,274	3,213	7,734	14,572	22,683	31,713	42,821	54,553	66,857	79,986
Closing Balance	2,274	3,213	7,734	14,572	22,683	31,713	42,821	54,553	66,857	79,986	94,148

11 KEYASSUMPTIONS

Table 11-1 Revenue Assumption

Total Capacity	36 seats
Capacity Utilization (year 1)	90%
Basic Working Hours	24 Hrs a Day
Capacity Utilization Growth /year	5%
Service Charges per seat/ month	\$ 950
Dollar rate	Rs.80.1/-
Sales Price Growth rate	10%

Table 11-2 Expenses Assumption

Electricity Growth Rate	10%
Bandwidth Cost (2Mbp)	Rs. 100,000 per month
Fees	21% of PTCL Price
*Back up Cost	
*Provider cost	\$3000 per month
*Growth Rate	5%
Building Rent	Rs. 40,000 per month
Electricity Rate Per Units	Rs. 11.00
Repair Maintenance (%age of Machinery Cost)	2.5%
%age growth in repair maintenance	5%
Insurance (%age of Machinery Cost)	3%
Payroll Growth rare	10%
Depreciation	
Office equipment	10%
Telecom and Computer Equipment	33%

^{*}Optional

Table 11-3 Operating Expense Assumptions

Printing and Stationery	1% of Revenue
Consultancy Charges and Audit fee	Rs.25,000 per month
Consultancy Charges and Audit Fee growth rate	10%
Entertainment Expenditure	0.3% of Revenue
Telephone, Fax and Postage	1.5% of Revenue



Table 11-4 Financial Assumption

Project Life	10 Years
Interest Rate	18%
Debt Tenure	5 Years
Discount rate	20%
Debt payments (in 1 year)	2
Debt: Equity ratio	50:50

Table 11-5 Cash Flow Assumptions

Accounts Payable Cycle	30 days
Accounts Receivable Cycle	30 days
Minimum Cash in hand	Rs. 1,102,283

11.1 Operational Assumptions

The Equipment to be used on client side is omitted. As per industry norm it is assumed that the client side equipment will be provided by the client.



Annexure - I



List of Machinery & Software Suppliers

Description	Manufacturer
Router	Cisco 1751 http://www.cisco.com
	Arwen Tech <u>www.arwentech.com.pk</u>
Switch	3Com 3300 Series http://www.3com.com
Linux	RedHat http://www.redhat.com
Soft Exchange	Digium http://www.digium.com
Voice Interface Cards	Digium http://www.digium.com
Network Load Balancing	Eddie http://eddie.sourceforge.net
Sound Recording Software	NAS http://radscan.com/nas.html
Computers Server	Any Local Vendor
Client Computers	Any Local Vendor
VSAT Equipment	Local vendors/ ViaSat http://www.viasat.com
Misc. Network Equipment	Local Vendors
Network Installation and Consultancy	COMELS http://www.comels.com
Main Se-Me-We3 Bandwidth	PTCL http://www.ptcl.com.pk
Backup VSAT Bandwidth	IntelSat http://www.intelsat.com OR
	GlobeCast http://www.globecast.com

Useful	Websites
	111

www.sellingpower.com

www.callcentermagzine.com

www.erlang.com/forum/callcenter

www.thecallcenterschool.com

www.pakistancallcenters.com

www.pseb.org.pk

www.ptcl.com.pk

www.pseb.org.pk

www.pasha.org.pk

www.arwentech.com (for complete call center set up solutions)

www.symbia.com.pk (for complete call center setup solutions)



Glossary of Terms

VOIP	Voice Over Internet Protocol	
CSR	Customer Service Representative	
PBX	Public Branch Exchange	
LAN	Local Area Network	
VSAT	Very Small Aperture Terminal	
Full Duplex	Two Way Internet Connection (Including Downlink and Uplink)	
CCC	Corporate Customer Care	
PRI	Primary Rate Interface (Includes 30 Lines)	
ISP	Internet Service Provider	
CODEC	Coding and De-Coding Algorithms	
UPS	Uniform Power Supply	
LNB	Low noise block downconverter	
SE-ME-WE-3	Sub-Marine Fiber Optic Cable (Used By Pakistan)	
PSEB	Pakistan Software Export Board	

Bandwidth Rates

How does it Work?

Establishing an International Call Centre is easy and hassle- free. Access to such a set up is facilitated by 0800 Toll-Free Service, wherein overseas customers' calls are routed to Pakistan or overseas destinations through VoIP technology where trained agents are ready to respond to the queries of the customers. The service however involves certain human resource requisites like communication skills and customer handling to be arranged by the subscribers.

Prospective Beneficiaries:

The main services that can operate International Call Centers include airline booking/confirmation, help line, banking, hotels, reservations, medical prescription entries, insurance claims and data entries etc.

Incentive Package

PTCL offers an attractive incentive package to prospective subscribers. This offer features:

- Reduced connectivity charges from US \$ 9900 to US \$6500 per Ei Full Circuit MBS on FLAG.
- Maximum reliability through free satellite backup.
- Satellite capacity reinforcement of Pakistan Internet Exchange to ensure bandwidth availability in case of SMW3 outage.
- Service Level Agreement with Internet and IT companies.
- Self-healing domestic backbone.
- Software Technology Parks connected through Optical Fiber rings.
- 20% reduction in local line charges.



Tariff Package:

International Call Centers

The PTCL Management is pleased to announce following bandwidth tariffs for International Call Centers.

The rates will be as under:

TARIFF FOR INTERNET CONNECTIVITY THROUGH PAKISTAN INTERNET EXCHANGE				
Sr. #	Bandwidth	Charges per month (US \$) at Islamabad	Charges per month (US \$) at Karachi	
1	64 Kbps	80	70	
2	128 Kbps	150	120	
3	256 Kbps	250	210	
4	512 Kbps	420	350	
5	1 Mbps	720	600	
6	2 Mbps	1,200	1,000	
7	8 Mbps	4,320	3,600	
8	10 Mbps	4,800	4,000	
9	12 Mbps	5,778	4,815	
10	14 Mbps	6,738	5,615	
11	16 Mbps	7,272	6,060	
12	18 Mbps	8,160	6,800	
13	20 Mbps	9,066	7,555	
14	22 Mbps	9,972	8,310	
15	24 Mbps	10,860	9,050	
16	26 Mbps	10,980	9,150	
17	28 Mbps	12,678	10,565	
18	34 Mbps	14,400	12,000	
19	45 Mbps	18,000	15,000	
20	155 Mbps	36,000	30,000	

