

Software Development and Business Process Outsourcing in Pakistan

Build or Partner: Setting up your own firm or Working
with Outsourcing Partners

Strategic Systems International

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Agenda

- Introduction to Strategic Systems International
- SSI Experience In Offshore Software Development
- Overview of Pakistan & Its Technology Sector
- Opportunities & Challenges in Pakistan
- Build or Partner: Key Issues

About Strategic Systems International

Mission

To provide world class technology services to business partners for on-going solutions development and delivery

History

- US Office
 - Incorporated in 1991 in Evanston, Illinois
 - Sales, project management, and implementation
- Lahore Office
 - Established in 1999
 - Software development, testing and support
 - Analytical services

Partial Client List

Industries Served

- Healthcare
- Manufacturing
- Education
- Insurance
- Investment Banking
- Logistics
- Management Consulting
- Publishing

Clients: Manufacturing & Logistics

- Andersen Corporation
- Appleton Papers
- Biofilm SA
- Elkay
- Elf Atochem North America
- Eka Nobel, Inc.
- Hickson DanChem Corporation
- J.B. Hunt Logistics
- J.W. Aluminum
- K2 Corporation
- Kraft Foods
- Newsweek
- Quantum Performance Films
- Simplex Products
- Spiegel
- Straightline Source – US Steel Corporation
- Weyerhaeuser Company
- Witco Corporation

Clients: Healthcare

- Alexian Brothers Medical Center
- Chicago Health Systems
- Chicago Osteopathic Hospital and Medical Center
- Chicago Partners
- Dameron Hospital Association
- Drexel Anesthesia Associates
- Grant Hospital of Chicago
- Grant Physicians Practice Association
- McNeal Health Providers
- Mount Sinai Hospital Medical Center
- Olympia Fields Osteopathic Hospital & Medical Center

Clients: Finance

- Thomson Financial
- Arthur Anderson
- Bear Stearns & Company
- Montgomery Securities

Clients: Services

- Allstate Insurance Company
- Arthur Andersen
- Budget Rent A Car Corporation
- Hewitt Associates
- Richard Winter Associates
- School District of Philadelphia
- Towers Perrin



Development Partnerships

Thomson Financial

- MQA, Web QA, FasTick product lines

Siemens Medical Solutions

- Asset Optimization, Project Management Solutions

myProcess

- On-Demand BPM Solutions

The Optimé Group

- Human Capital Optimization Platform
- Supply Chain & Sourcing Optimization Platform

Our Team

100+ staff in the US and Pakistan

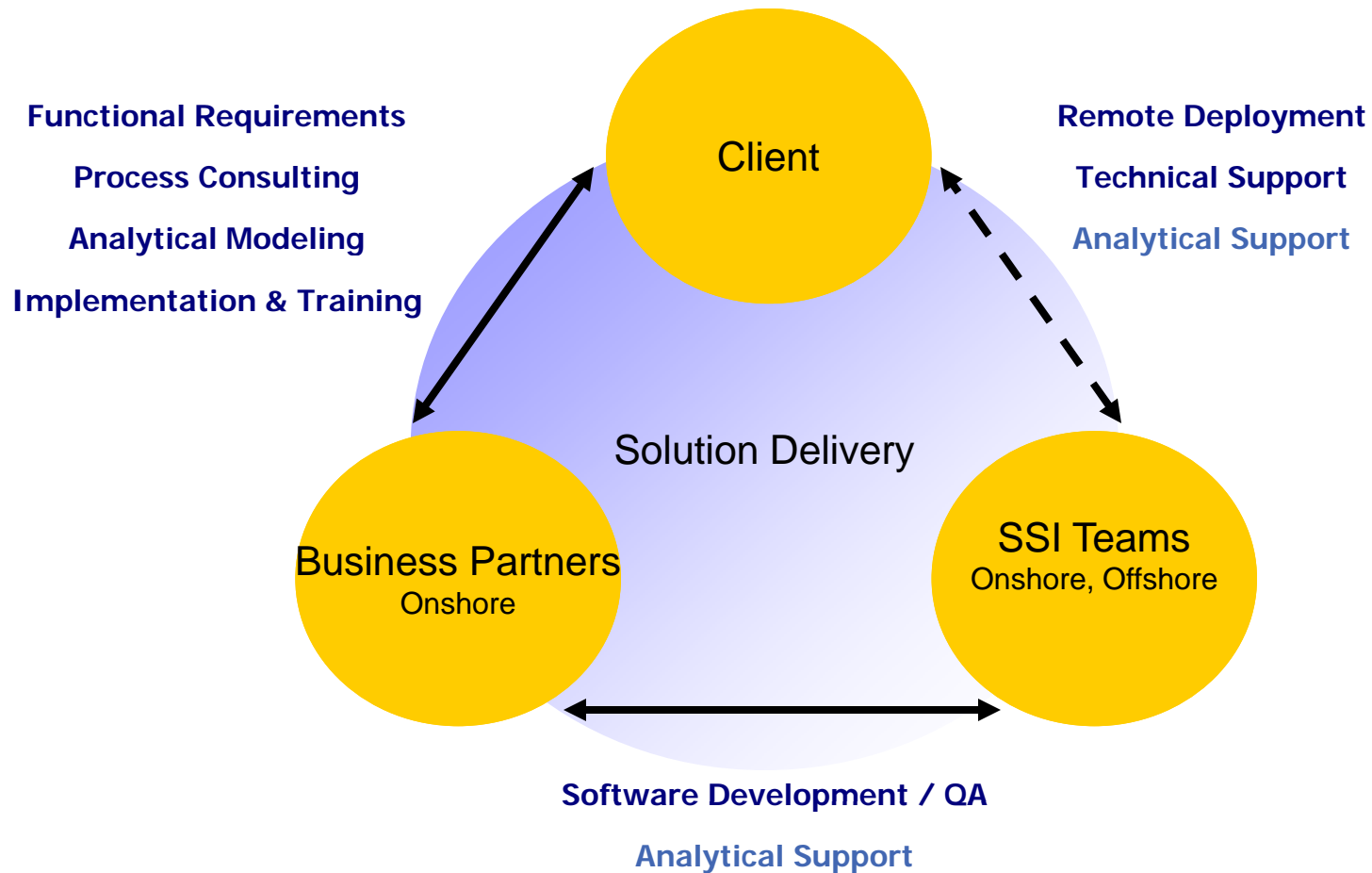
- ❑ US staff: Each with 20+ years of deep industry and domain expertise
- ❑ PK staff: Strong project management and software development skills

Credentials from top North American, European & Pakistani institutions

- ❑ Cornell University
- ❑ Carnegie Mellon University
- ❑ Northwestern University
- ❑ University of Chicago
- ❑ University of Illinois
- ❑ McGill University
- ❑ Chalmers University of Technology
- ❑ University of London
- ❑ FAST
- ❑ LUMS
- ❑ COMSATS
- ❑ Punjab University
- ❑ University of Engineering & Technology



Integrated Delivery Model





Offshore Development Experience

Launching SSI's Pakistan Office

■ Objectives

- Cost-effectively speed up product development
- Provide expanded scope of services to clients

■ Options considered

- Sub-contract
- Partnership
- Dedicated subsidiary

Launching SSI's Pakistan Office

- Sub-contracting and Partnerships
 - Pakistani software industry in 1999
 - About 100 software companies
 - About 2,500 IT professionals
 - \$25 million exports, \$25 million domestic
 - We talked with 4 software companies
 - Average size: about 20 professionals
 - Less than 1 year in business
 - Mostly "seth" funded

Launching SSI's Pakistan Office

- Dedicated subsidiary
 - More “control”
 - Getting the right attention
 - Focus on technology
 - Adherence to standards, etc.
 - More cost effective in the long run

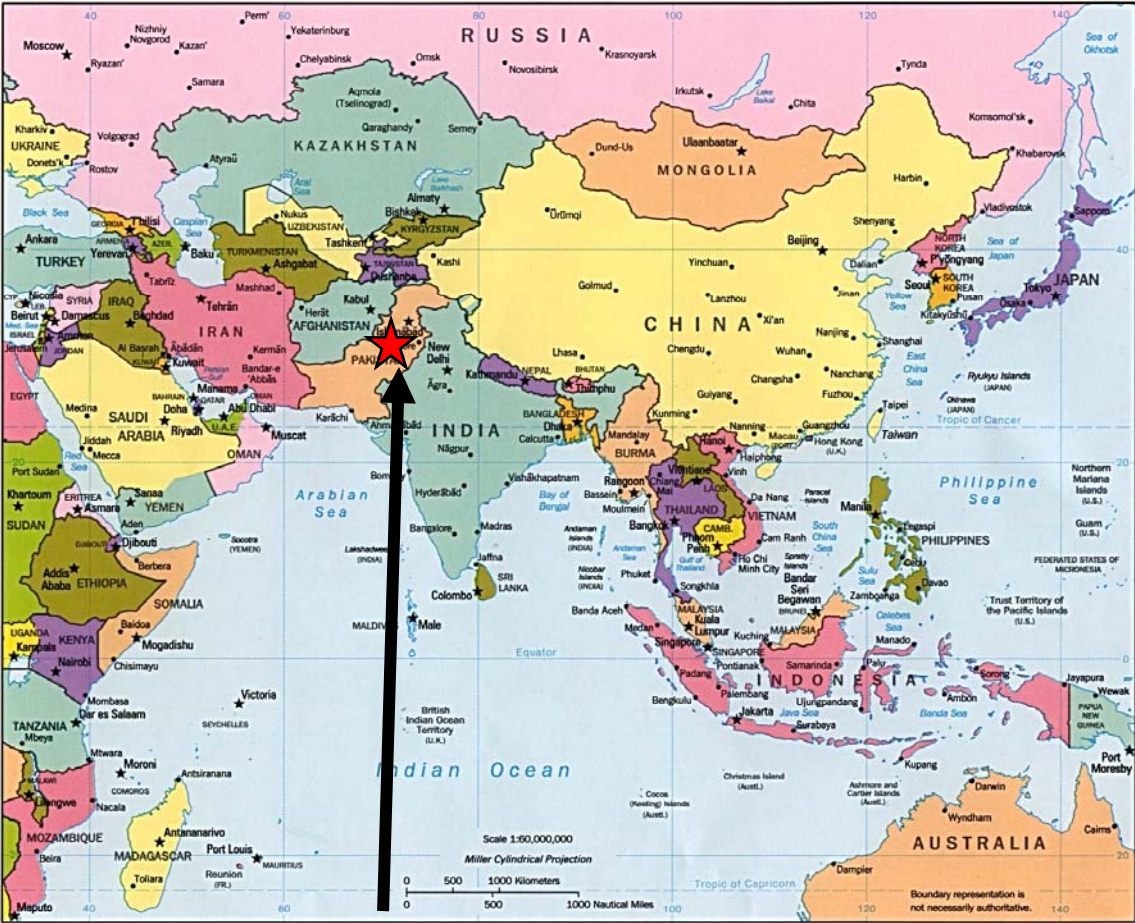
- Lahore office launch
 - Q1 99
 - Hired two key senior managers
 - Q2 99
 - Hired two additional middle managers, four developers
 - Found the office and setup all infrastructure
 - Hired professional firms
 - Commenced operations on July 1, 1999

Launching SSI's Pakistan Office

- Experience to date
 - Moved all development to Lahore
 - Delivered multi-million dollar projects with the offshore team
 - Extremely pleased with the team we've put together
 - Looking to grow significantly over the next 3 years
- Launched 2nd office in Karachi in 2005

Overview of Pakistan

So where in the world is  ? and Lahore?



Lahore

Next to India, China, Iran, Afghanistan

Pakistan: Demographics

- Population: 162 million
- Age Distribution:

0 - 14 years	39.6%	64 million
15 - 64 years	56.3%	92 million
65 years +	4.1%	6 million
- Median Age: 19.58 years
- Life Expectancy: 63 years
- Population Growth: 2%
- Literacy: 52% (over age 15 that can read and write)
- Comparison to US: 8% of US area; 55% of US population

Pakistan: Economy

- GDP: \$ 347 billion (purchasing power parity)
- GDP Per Capita: \$ 2,200 (purchasing power parity)
- GDP Growth: 6.1%
- Inflation: 4.8%
- Unemployment: 7.7%
- Exports: \$ 14.4 billion
- Imports: \$ 20.6 billion

Pakistan's Technology & BPO Sector

Pakistan's Technology Industry

- Industry started in mid-1990's
- Slow growth and exports before 2003
- Since 2003, growth sparked by recovery in the US technology sector, diversification to other regions, and local business
 - Previously, exports were 100% to the US; now 35% to EU and Middle East
- Fiscal 2006-2007, software and IT enabled services revenue was \$1.4 billion
 - Exports and outsourcing = US \$108 million
 - Call centers and BPO roughly one fourth of exports
- Forecasted growth of 45% plus annually for next five years
 - Most growth will come from call centers and business process outsourcing
- 120 call centers set up over the last few years; employ 3,500 people
 - Call centers expected to grow about 60% a year

Statistics of the Pakistani IT / ITES Industry (PSEB Data)

IT companies registered with PSEB	1082
Number of substantial IT companies by city	384 Karachi
	276 Islamabad
	353 Lahore
	69 others
Total IT spending in the fiscal year 2006-2007	US\$ 1.4 billion
Export targets for fiscal year 2006-2007	US\$ 108 million
Total number of foreign IT / Telecom companies	60
Percent growth in exports over the last one year	61.18%
IT & Software Technology Parks	Eleven IT Parks (total 750,000 sq ft)



Human Resources of the Pakistani IT / ITES Industry (PSEB Data)

Universities offering IT/CS programs	110
Number of IT graduates produced per year	Approximately 20,000
IT professionals employed in Pakistan	110,000
IT professionals engaged in export-oriented activities (software development / call centers etc.)	15,000

Why Pakistan? (PSEB Information)

■ 8 Reasons:

- An IT workforce of 90,000 with good English language skills growing at a rate of 20,000 / year.
- Approx. 100 ISO-certified IT companies, with over 25 undergoing CMMI rating.
- A reliable digital telecommunications infrastructure with backup and reliable energy and transport networks.
- An ambitious program of world-class IT Parks, with a rental rate of approx. US\$1 per sq ft / month.
- A prosperous economy that offers lucrative domestic opportunities and is attracting increasing amounts of international investment.
- A steadily improving risk rating and a tightening environment for intellectual property protection.
- A streamlined government regulatory process, with one of the most attractive incentive programs anywhere; including tax exemptions, 100% foreign equity and earnings repatriation.
- International leaders such as BearingPoint and NCR Teradata have chosen to locate their development and consultancy centers in Pakistan.

Opportunities & Challenges

Market Opportunity / Pakistan's Share

- BPO expected to grow from \$405 billion in 2004 to \$682.5 billion in 2008 (IDC)
- 1 in 9 US IT jobs will move overseas by 2010 (Forrester Research)
- Up to 40% cost reduction through outsourcing back office operations
- Typical offshore BPO services:
 - Call centre operation
 - Software development
 - Computer graphics, animation
 - Accounting
 - Legal research
 - Medical transcription
 - Financial analysis, etc.
- India firms' revenue last year: \$25+ billion (offshore)
 - 300,000 'knowledge workers' are servicing this industry
 - Million more expected to get hired by 2008
- Pakistan's share from the global BPO business: US \$100 million

Pakistan IT Industry – Positives & Negatives

■ Positive

- 17 million English speakers; large 'educable' young population
- Low wages
 - Call center workers earn about \$12 per day
 - Starting software engineers pull in \$5,000 or so annually
- Tax holiday till 2016
- Improving infrastructure – telecom; travel

■ Negative

- Country image - perceived as a troubled destination
- Shortage of trained IT professionals
 - An additional 7,000 high-end professionals needed annually (current base = 75,000)
 - 100+ IT institutes produce 20,000 graduates a year - but only one-fifth are competitive and well trained

Opportunities within Pakistan

■ Education

- Need 1,000 – 2,000 K-12 schools – Quality is key!
 - People will pay for quality
 - Multiple tier levels
- Need workforce with broad skill sets to outsource complete processes
- Communication skills are essential

Build or Partner: Key Issues

Build or Partner: Set up your own, or Work with an Outsourcing Partners

Key Issues:

- Cost
 - Initial versus On-going
 - Cost / Hour - depends on the team size
 - Varies a lot by tier of talent required
- Staffing (Recruitment, Retention, Training)
 - Size of team
 - Skills required
 - Level of expertise (talent backgrounds, experiences)
 - Domain knowledge - functional / business
 - Length of need / engagement
- Time to Market
 - How quickly do you need to deliver
 - How quickly do you need to scale
- Operational Considerations
 - Infrastructure setup
 - Dealing with bureaucracy

A few words about Staffing

Demand is high - Staff has become very selective

- People are looking for meaningful experience and 'careers'
- Company reputation / image is very important
- Family / friends are big influencers in job selection
- Turnover among junior staff is high
- Female staff typically won't work very late

Keys to Retention

- A good salary is just the beginning
- Challenging work
- Company 'culture'

Build versus Partner: Quick Comparison

	Build	Partner
Cost (<50 Team Size)	Initial: Higher Long Term: Same	Initial: Lower Long Term: Same
Cost (>50 Team Size)	Initial: Higher Long Term: Lower	Initial: Lower Long Term: Higher
Time to Market	May take time as you assemble & train the team	Quicker with partner that can assemble and manage the team
Operational	Not too difficult	A little easier
Staffing	Recruitment: Hard Retention: Depends upon how well you run your operations	With the right partner: Things can be a little or a lot easier With the wrong partner: You are much worse off

If you build your own ...

■ Some Do's

- Hire “professional” management & staff
- Plan on extensive training: process & technology
- Build good communications, project management protocols
- Invest in infrastructure, grow at a manageable pace
- Be creative in staffing
- Don't overpay

■ Some Don'ts

- Expect immediate payback – invest for the long run
- Don't make it a “friends-and-family” program

If you work with an outsourcing partner ...

■ Some Do's

- Partner with “professional” management & staff
- Select partner with functional / domain expertise in your area
- Define expectations – review frequently, adjust as necessary
- Build good communications, project management protocols
- Plan on extensive training: process & technology
- Invest in the relationship – remember it's a partner, not a vendor

■ Some Don'ts

- Expect immediate payback – it will take a few months to work out all the kinks
- Blame the partner or its people for everything – look at issues on both sides and work to improve the process

Build – Operate – Transfer (BOT) Model

- BOT Model:
 - Partner with an existing firm with an explicit understanding of splitting your team at some pre-defined time
 - Usually would require a separation fee, but may be well worth it



For further information

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