Outsourcing Evaluation Workshop

Pacific Petroleum Evaluation Information

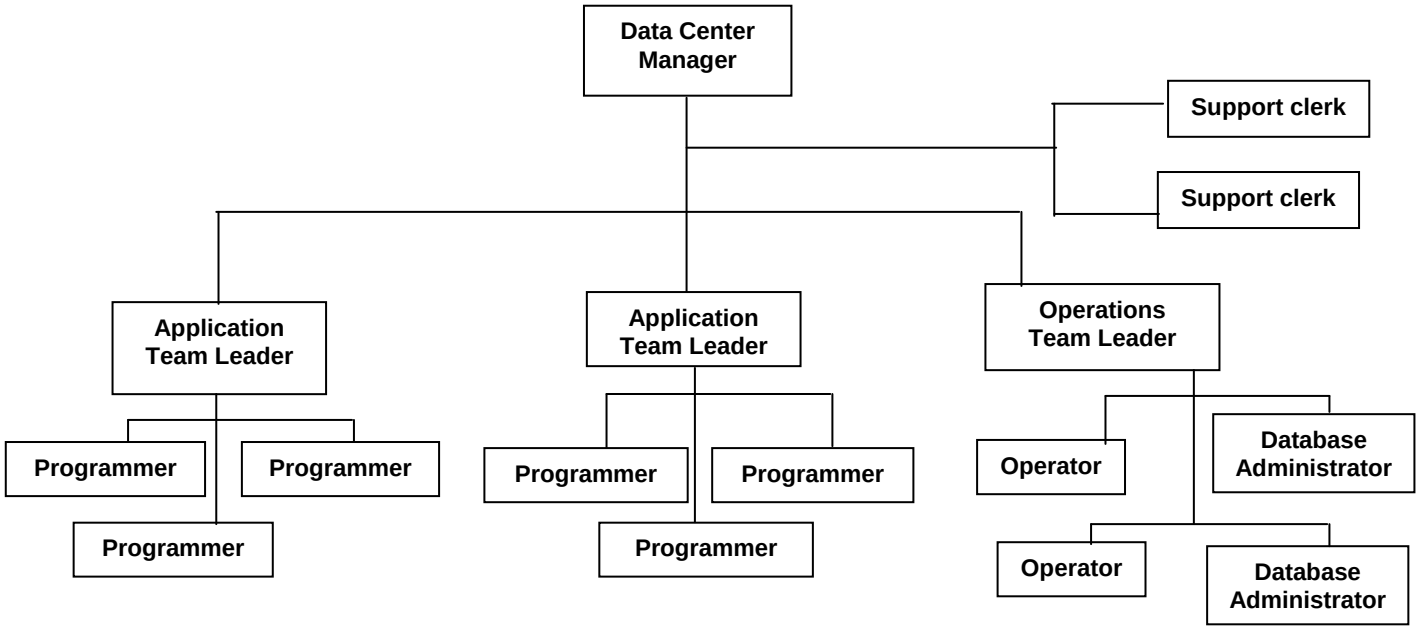
Background

A major Singapore oil company -Pacific Petroleum depends heavily on IT to carry out its business. Until recently all IT development and maintenance work was done in-house by the IT department. However it has now been decided by executive management that much (if not all) IT development and operation should be outsourced. Due to the diverse nature of the IT activities performed within the organization, it is not possible to give all the work to one service provider. Also off-loading all the IT work to one service provider "at once" is seen as a high risk, and may "lock-in" the organization to one service provider. Therefore it has been decided that the task of outsourcing the work of the IT department will proceed on an incremental basis, also smoothing the administrative and managerial workloads.

One of the major functions of the IT department is the development, maintenance and running of various administrative and process management applications on the company's mainframe computers in the Singapore Data Centre. Due to shortage of experience staff, the current Data Center Manager was also asked to assist to manage some of the applications development.
This section is currently managed by 16 staff within the IT department. These are:

- Applications programmers
- Systems programmers
- Database administrators

The current staff structure is given below:



The data centre consists of three mainframe IBM z-series computers (which act as servers), several data storage systems, and a number of smaller servers. There are also numerous peripheral and network devices, and a LAN connecting all machines. Major software run in the Data centre include COBOL and JAVA applications, ERP packages, and DB2 applications. The principal task of the Data Centre is the operation and support of critical IT services to the business units of Pacific Petroleum. In general there is not much large-scale software development in the Data Centre, with new applications being developed off-site or off-the shelf ERP packages being purchased and installed. However, software systems will be created or enhanced in-house if there is a need to do so.

The current head is about to retire, and there have been numerous complaints concerning the work of the programmers. It has therefore been decided that this section will be the pilot for outsourcing. Several computing firms and consultancies were identified and approached to determine if they were appropriate to perform this function. After an initial phase of fact-finding and discussions the short list was reduced to two organizations. Both firms have submitted proposals and are about to make presentations

Workshop Details

It is now end September 2009. The outsourcing contract must be placed by 15th December 2009, and work must begin on 1st January 2010.
Your team has been tasked by the Pacific Petroleum CIO with selecting one of these service providers, and negotiating changes to their proposals if desirable (or possible!).

Your Team must:

1. Examine the attached proposals and other details.

2. Prepare the following:
    a. Determine the objective of outsourcing this project.
    b. Define 5 key evaluation criteria in selecting the service provider and the weightage for each.

3. Attend a presentation by the service providers where you can clarify any issues regarding their proposals and try to negotiate changes if feasible.

4. Select one of the two competing firms on the basis of your evaluation.
    a. Provide the overall analysis

5. Prepare a short presentation describing your decision.

The Competing Firms

There are two organizations that have been short-listed as contenders for the contract.

- FutureTech, a medium- sized reputable software house based in Singapore
- VBS (Singapore) inc.: a recently established Singapore-based branch of a large international US consultancy

Pacific Petroleum has dealt with FutureTech before, and has in fact given them subcontracts for application Software development in the past. No work has been done by VBS for the organization, but the president of the company in Singapore recently took Pacific Petroleum deputy chief executive to lunch at the American Club!

Other considerations for the Evaluation

There are several factors that must be considered when assessing the two service provider's bids for this outsourcing contract:

- After award of the contract, the outsourcing service provider would begin work on planning the transition, but until the handover is complete, the Data Centre would have to continue operating (and therefore be paid for). Pacific Petroleum would therefore want the handover to be completed as soon as possible. Ideally they would like the handover to be completed by two months, but if necessary they would accept three months, but this is not desirable, and should be used as a bargaining chip in negotiations.
- The total duration of the outsourcing contract will be two years; this will allow for a major review of the contract after one year's duration and also allow a transition back to in-house computing if circumstances demand it.
- Pacific Petroleum user departments are greatly concerned about the quality of the application software and the supporting services and have communicated this to the CIO. It is therefore a major criteria for service provider selection.
- As VBS have only just begun working in Singapore, Pacific Petroleum has no definite feelings regarding their performance. However, some members of senior Pacific Petroleum management have expressed reservations on employing a relatively unknown company on such a lucrative and prestigious contract
- The Data Centre team consists of 1 manager, 3 team leaders, 10 programmers/analysts/ operators/ administrators and 2 general administration clerks. None of these staff have skills that would be valuable elsewhere in the organization, so when the application work is outsourced all of the staff will be retrenched (apart from the manager who is retiring anyway!) Average cost of retrenchment is $S25,000 per person. If the staff are transferred to the

outsourcing service provider, then no significant retrenchment benefits will be paid, as retrenchment has (effectively) not taken place.

- The Data Centre costs for the calendar year 2008 are given below:

Table: Current Costs for the Data Centre

1. Manpower Costs		**Cost ($SK)**
Data Centre staff	No. of	Total Costs per year
Manager	1	150
Team Leader	3	360
Programmers/DB administrator	8	480
Operator	2	120
Admin/support	2	90
Total	**16**	**1200**
2. Equipment and associated Costs		
Hardware Maintenance		70
Hardware Purchase/upgrades		200
Existing Software Licenses & maintenance		300
New Software licenses		100
Internal IT staff training		20
Total		**690**
3. Building , other costs		
Power, air-conditioning, water		40
Telecommunications		10
Building rent		600
Miscellaneous (e.g. building insurance etc..)		5
Total		**655**
GRAND TOTAL =		**2545**

The FutureTech Proposal

1. Statement of Work (SOW)

The work would be performed by the FutureTech Outsource Project Group (FOPG). The Scope of work performed by the project group would be as described in the RFP in Appendix A. Any work additional to this would involve re-negotiating the contract.

2. Managerial Proposal

The implementation & operation plan

Activity	Year 1				Year 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Organizational analysis								
Equipment installation								
Parallel running								
Testing								
Handover complete								
Operation of FOPG								
Management								

Important points of the managerial proposal are as follows:

(a) A full-time manager based at the FutureTech office site will run the Data Centre. The Manager has been identified as Ralph Cheng, whose CV is attached in Appendix B.

(b) The handover would be completed by the end of March 2010.

(c) The work would mostly be performed at the FutureTech office site. Existing Hardware and software currently utilized by the Data Centre would be bought by FutureTech and re-installed at their offices. During the reinstallation parallel running would be performed by FutureTech owned equipment

(d) FutureTech would offer positions to the three team leaders currently employed by Pacific Petroleum, but there would be no other jobs available for the rest of the mainframe applications and maintenance section. These staff would therefore need to be retrenched by Pacific Petroleum.

(e) A Steering group for the project would be set up. It would be staffed by
- Senior management of Pacific Petroleum; User managers and the Pacific Petroleum CIO (or his representative)
- The MD of FutureTech (or his representative)

This group would discuss and plan the project strategy and would review project progress and discuss and agree on changes.

(f) Points of contact between Pacific Petroleum and FOPG would be:
- Regular formal monthly meetings between Ralph Cheng and the Project Steering Group in which the general status of work by the FOPG would be reported, and any extraordinary items would be discussed. A monthly progress report would also be produced and submitted to Pacific Petroleum before this meeting.

- Regular weekly progress meetings between Ralph Cheng and the management representative of Pacific Petroleum in order to review ongoing work and to expedite the day-to-day management of the project
- Informal meetings between users and FOPG could take place when and where work demanded it. Minutes of these meetings would be prepared and distributed. If serious differences arose regarding the scope of work to be done, or in the quality of the work performed, then a formal meeting would be held by the steering group to resolve the issue. If this failed to resolve the issue, it would be escalated to a meeting between the CIO and the MD of FutureTech.

3. Technical Proposal

3.1 General

The work would be performed using the existing hardware and tools used by Pacific Petroleum IT department. The Pacific Petroleum programming standards and documentation standards (with which FutureTech are familiar) would be used throughout. The work would satisfy the SOW detailed in Appendix A.

3.2 Quality Control

FutureTech is already certified to ISO9001-2000. FutureTech is aware that quality has been a major problem in this area, and therefore proposes the following measures:

- FutureTech would ensure ISO9001-2000 practices are adopted by the Data Centre(although they are not proposing formal certification) , also;
- Formal reviews will be performed during software development or enhancement where the following products will be reviewed:
    - The User requirement specification
    - The User manuals (or updates to them)
    - The User acceptance test specification

  These documents would be reviewed.
  The reviewers would be FOPG members and users from Pacific Petroleum. The results of the reviews would be formally documented and followed up.
- Rigorous application and design of acceptance tests, with the Acceptance tests specified jointly with users and then performed under user supervision
- Formal change control procedures, with changes being proposed by users and approved by joint change control committee staffed by FOPG management and user management

3.3 Post development support

FutureTech also recognizes that post-development support has been a problem and proposes to put greater emphasis on this task. In particular

- There will be a help-desk service that will answer user queries concerning the software developed by the Data Centre

- The performance of the Data centre services against the agreed SLA's would be reviewed at the weekly and monthly progress meetings

4. Financial Proposal

FutureTech has proposed the following cost payments plan. It involves cash payments or transfers on a quarterly basis:

1) Payments from Pacific Petroleum to FutureTech

Quarter	Activities	Cost ($SK)
year 1/Q1	Handover and parallel running	460
year 1/Q2	Handover complete & initial operation of Data Centre by FOPG	292
year 1/Q3	Operation of Data Centre by FOPG and additional tasks specified in SOW	258
year 1/Q4	Operation of Data Centre by FOPG and additional tasks specified in SOW	557
year 2/Q1	Operation of Data Centre by FOPG and additional tasks specified in SOW	289
year 2/Q2	Operation of Data Centre by FOPG and additional tasks specified in SOW	650
year 2/Q3	Operation of Data Centre by FOPG and additional tasks specified in SOW	289
year 2/Q4	Operation of Data Centre by FOPG and additional tasks specified in SOW	289
TOTAL		**3084**

2) Payments from FutureTech to Pacific Petroleum

Quarter	Activities	Cost ($SK)
year 1/Q1	Purchase of Hardware & software	500

3) Total cost of project = $3084K - $500K = $2584K

5. List of some previous clients in Singapore
   1. Malaysian Food products Co.Ltd.
   2. Singapore United Technologies
   3. Brooke Furniture Emporium Co.Ltd
   4. American International Insurance
   5. Pacific Petroleum Pte ltd.

The VBS Proposal

1. Statement of Work (SOW)

The work would be performed by the VBS Partnership Group (VBSPG). The scope of work performed by the partnership group would be as described in the RFP in Appendix A. Any work additional to this would involve re-negotiating the contract.

2. Managerial Proposal

The implementation & operation plan

Activity	Year 1				Year 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Training of staff in OO techniques								
Purchase and installation of OO tools								
Parallel running of old system								
Rewriting of Mainframe applications								
Building of IT infrastructure								
Transition complete and Centre begins formal operation		◆						
Operation of Centre								
Management								

Important points of the managerial proposal are as follows:

(a) The Data centre will be managed by the Singapore office, but will be based at Pacific Petroleum. The Manager has been identified as Pete Henderson, whose CV is attached in Appendix C.

(b) The transition will be completed by the end of February 2010.

(c) The Data centre would continue to operate at the Pacific Petroleum office site. Existing hardware and software currently owned by Pacific Petroleum would be bought by VBS. New hardware and software will be purchased by VBS for use on this project.

(d) The entire Data centre staff would be offered employment by VBS in the new Data Centre.

(e) Points of contact between Pacific Petroleum and the centre would be by:

- Monthly meetings between Pete Henderson and the Pacific Petroleum CIO when the general status of work performed by the Centre would be reported, and any extraordinary items would be discussed. A monthly progress report would also be produced and submitted to Pacific Petroleum before this meeting.
- Regular weekly management meetings between Peter Henderson and the management representative of Pacific Petroleum in order to review weekly progress.
- Each particular software development undertaken by the Centre would be launched by an initiation meeting which would be attended by Pete Henderson, the manager of the user department who would use the software and the Centre's programmers/analysts employed by the centre who would be working on the project. Thereafter progress meetings between user representatives and the developers would occur at regular intervals.

3. Technical Proposal

3.1 General

The following important features are part of the technical strategy.

3.2 Quality Control

Major divisions of VBS have been certified to ISO9001-2000 and or CMMI level 3. VBS intends to institute superior quality practices (such as Peer Reviews) in order to obtain high quality IT products and services.

3.3 Development Methodologies

VBS also believes that the performance of the Data Centre can be improved by major changes in how software is produced for Pacific Petroleum. VBS proposes to:

- Introduce Object-oriented (OO) analysis, design and coding techniques to new software developments.
- Purchase and installation of OO tools that will automate major portions of software development
- Reverse -engineering of existing software applications produced in-house and VBS believes this is the only long-term solution to the problems of poor quality code.
- Train the current staff in OO techniques; this would be done by in-house VBS trainers.

3.4 New IT Infrastructure Architecture

In order to fully exploit the capability of OO systems and also to provide a long-term growth capability to the existing system VBS is proposing to convert the existing architecture to service oriented architecture. This will be achieved by:

- Create a service orientated architecture that would integrate all applications and utilities in the data centre
- Replacing the current old PCs with modern workstations which will have significant local processing capability
- These workstations will be connected to the mainframes via a LAN and suitable middleware will be hosted on the servers and workstations.

4. Financial Proposal

The following cost payments plan has been proposed by VBS. It involves cash payments or transfers on a quarterly basis:

1) Payments from Pacific Petroleum to VBS

Quarter	Activities	Cost ($SK)
year 1/Q1	Handover and parallel running	1134
year 1/Q2	Handover complete & initial operation of Data Centre by VBSPG	274
year 1/Q3	Operation of Data Centre by VBSPG and additional tasks specified in SOW	238
year 1/Q4	Operation of Data Centre by VBSPG and additional tasks specified in SOW	457
year 2/Q1	Operation of Data Centre by VBSPG and additional tasks specified in SOW	238
year 2/Q2	Operation of Data Centre by VBSPG and additional tasks specified in SOW	541
year 2/Q3	Operation of Data Centre by VBSPG and additional tasks specified in SOW	238
year 2/Q4	Operation of Data Centre by VBSPG and additional tasks specified in SOW	238
TOTAL		**3358**

2) Payments from VBS to Pacific Petroleum

Quarter	Activities	Cost ($SK)
year 1/Q1	Purchase of Hardware & software	600

3) Total cost of project = $3358K - $600K = $2758K

5. List of previous clients in Singapore

1. Singapore United Technologies
2. Singapore Bird (Regional airlines)

Appendix A: Pacific Petroleum Request For Proposal: Statement of Work (SOW)

The tasks envisaged for the outsourced Mainframe application and maintenance function are given below. It describes the work based on the ongoing IT outputs expected by Pacific Petroleum and also important dates in the contract.

Task	Date of completion of task
1. Maintain the Asset Management application	Must be performed continuously throughout the contract
2. Maintain the Safety Management Database	Must be performed continuously throughout the contract
3. Maintain the HRM ERP Package	Must be performed continuously throughout the contract
4. Maintain the Project Planning and Monitoring Database	To be performed continuously throughout the contract
5. Desired completion of handover of IT functions	1st April 2010
6. Enhance the Project Planning and Monitoring Database	1st July 2010
7. Implement new Supply Chain Management ERP Package	1st October 2010
8. Maintain the new Supply Chain Management ERP Package	Must be performed continuously from 1st October 2010
9. Major review of outsourcing contract	1st January 2011
10. Implement Jurong Island Warehousing Management system	1st June 2011
11. Maintain new Jurong Island Warehousing Management system	Must be performed continuously from 1st June 2011
12. Maintain peripherals, links to remote terminals, and other hardware components including; • Equipment maintenance terminals • Real-time process management systems	Must be performed continuously throughout the contract

13. Maintain and operate core IT systems (such as the IBM z-series computers), including • Job processing • System tuning • Systems software upgrade and maintenance • Capacity management • Availability management • Maintaining operational guidelines and procedures • Trouble shooting • General Housekeeping • Back-up & recovery • Security processing	Must be performed continuously throughout the contract
14. Providing Disaster Recovery Facilities, including • Business Continuity planning • Alternative site management • Recovery management	Must be performed continuously throughout the contract

Users of the above services are as follows:

Service	Users
Asset Management application	Operations department
Project Planning and Monitoring Database	Operations department
Safety Management database	Quality management/Safety management
HRM ERP Package	HR department
Supply Chain Management ERP Package	Sales and marketing department/ Operations department/ Transportation department
Jurong Island Warehousing Management system	Jurong Island warehouse management/ operators/ Store managers

In general, the users of these applications will engage in both on-line interaction and also originate batch jobs. The application programmers in the Data Centre and maintenance section support the users by either

- Ensuring the on-line interactions operate smoothly
- Running overnight batch jobs when needed
- Writing small programs to perform "one-off" jobs for users; e.g. requests for summaries of information not normally provided in regular reports.
- Providing support to users in using particular applications.

They will also co-ordinate with the systems programmers and database administrator.

Appendix B: CV of Ralph Cheng (FutureTech)

Age: 31
Nationality: Singapore Citizen
Education; B.Sc. Electrical Engineering (Merit) NTU (2000)
Skills: Programming in "C", COBOL/CICS and SQL, also relational database design, and has lead SAP implementations

Employment History

Year	Employer	Position	Work
2000-2001	HDB	Programmer	Wrote COBOL programs for HDB accounting department
2001-2003	Grand Hope Overseas Investment IT department	Programmer/ systems analyst	Responsible for designing and implementing software systems for management of overseas condominium developments
2003 - Current	FutureTech	Senior systems analyst/Team Leader	Responsible for designing and implementing inventory maintenance and control databases for clients. Last worked as a team leader on an ERP software implementation for Pacific Petroleum

Appendix C: CV of Pete Henderson (VBS)

Age: 45
Nationality: US citizen
Education; B.Sc. Biotechnology (University of Illinois) 1986
MBA (Atlanta State University)
Skills: Programming in CORAL, ADA, ASSEMBLER, "C", FORTRAN, JOVIAL, C++ and also Structured analysis and design, and Object-oriented analysis and Design. Also Project management skills

Employment History

Year	Employer	Position	Work
1986-1989	McDonnell Douglas (US)	Programmer	Wrote Assembler and FORTRAN programs for Defense/aerospace projects
1989-1995	Raytheon Electronics	Programmer/ Team Leader	Responsible for designing and Assembler and FORTRAN programs for Defence/aerospace projects
1995 - 1999	IBM	Senior engineer/Quality analyst	Responsible for investigating new technologies for use in IBM products, also supporting TQM (Total Quality Management) program implementation.
2000- 2002	AT&T (USA)	Chief project Engineer	Responsible for creating architecture for new telecommunications network
2002-2005	Minerva Technologies (USA)	Chief Project Engineer/Project Manager	Responsible for systems design of new database system for credit scoring system for CITIBANK. Then became Project manager of same project
2005- present	VBS	Project manager/ Process Evangelist	Managed major Data Warehouse implementation for Australian mining company in Perth, Introduced new OO techniques in all VBS Australian projects. Managed major communications project for Australian Post Office