Evaluating Software Alternatives

Make or buy decision
- Develop software in-house
- Purchase a software package
- Customize a software package
- Outsourcing
- End-user (or departmental) computing

Developing software in-house
Reasons for in-house development
1. Satisfy unique requirements
2. Minimize changes in business procedures and policies
3. Meet constraints of existing systems
4. Meet constraints of existing technology
5. Develop internal resources and capabilities

Buying a software package
Reasons for buying a software package
1. Lower costs
2. Requires less time to implement
3. Proven reliability and performance benchmarks
4. Implemented by other companies
5. Requires less technical development staff
6. Future upgrades provided by the vendor

Customizing software packages
1. Purchase a basic package that can be customized to suit your needs
2. Negotiate with software vendor to make enhancements to suit your needs
3. Purchase the package and make your own modifications

Outsourcing
1. Using outside companies to handle part of the workload, on short-term or long-term basis
2. Contract personnel firms
3. Systems management or facilities management firms

SSPs (Storage Service Providers)

Some companies are using storage service providers (SSPs) to replace or supplement their own in-house storage infrastructure. A storage service provider is a third party provider that rents out storage space to subscribers over the Web. SSPs sell storage as a pay per use utility, allowing customers to store and access their data without having to purchase and maintain their own storage infrastructure and storage support staff. To be successful SSPs must offer very high availability and reliability and also must keep up with the latest technology. SSPs are responsible for monitoring the stored data and for managing their own capacity, response time and reliability.

Application Service Providers (ASPs)
An application service provider (ASP) is a business that delivers and manages applications and computer services from remote computer centres to multiple users via the Internet or a private network. Instead of buying and installing software programs, subscribing companies can rent the same functions from these services. Users pay for the use of this software either on a subscription or per transaction basis. The ASPs solution combines package software applications and all of the related hardware, system software, network and other infrastructure services that the customer would have to purchase, integrate and manage his or her own. The ASP customer interacts with a single entity instead of an array of technologies and service vendors.

The “timesharing” services of the 1970s, which ran applications such as payroll on their computers for other companies were an earlier version of this application hosting. But today’s ASPs run a wider array of applications than these earlier services and deliver many of these software services over the web. At web-based services, servers perform the bulk of the processing and the only essential program needed by users is their web browser. Large and medium sized businesses are using them for functions such as invoicing, tax calculations, electronic calendars and accounting.

Companies are turning to this “software utility” model as an alternative to developing their own software. Some companies will find it much easier to “rent” software from another firm and avoid the expense and difficulty of installing, operating and maintaining complex systems such as enterprise resource planning (ERP). The ASP contracts guarantee a level of service and support to make sure that the software is available and working at all times. Today’s Internet driven business environment is changing so rapidly that getting a system up and running in 3 months instead of 6 could mean the difference between success and failure. ASPs also enable small and medium size companies to use applications that they otherwise could not afford.

Companies considering the software utility model need to carefully assess ASP costs and benefits, weighing all management, organisational and technology issues. In some cases the cost of renting the software can add up to more than purchasing and maintaining the application in house. Yet there may be benefits to paying more for software through an ASP if this decision allows the company to focus on core business issues instead of technology challenges.

**End-user systems**

1. Major factor in systems planning and development
2. Applications can be managed by end-users
3. Software suites offer integrated applications
4. Interactive Help features include wizards
5. Security concerns might require read-only files
6. Information centres (IC) can support end-user systems
Steps in Evaluating and Purchasing Software Packages

Five step process
1. Evaluate the information system requirements
2. Identify potential software vendors
3. Evaluate software package alternatives
4. Make the purchase
5. Install the software package

Evaluate the information system requirements
   - Identify the key features of the system
   - Estimate volume and future growth
   - Specify any hardware constraints
   - Prepare a request for proposal or quotation

Identify potential software vendors
   - Next step is to contact potential vendors
   - An RFP will help vendors to identify solutions
   - Various sources of information on suppliers
     - Retailers
     - Computer manufacturers
     - Industry trade journals
     - Systems consultants

Evaluate software package alternatives
   - Object is to compare software packages and select the best alternative
   - Obtain information from many sources
     - Vendor presentations and literature
     - Product documentation
     - Trade publications
     - Companies that perform software testing/evaluation
     - Contact users of the package
     - Benchmark test

Make the purchase
   - Software licenses
   - Lease agreements
   - Maintenance agreements

Install the software package
   - Installation time depends on size and complexity
   - Before using the package, complete all implementation steps
     - Loading, configuring, and testing the software
     - Training users
     - Converting data files to new format

Integrated Software package – A package that contains elements of all of the most popular types of application software such as word processing and spreadsheets. It eliminates the need to import information between the different programs.
Software Suite – A set of full application programs sold together as a single unit. It is a much more powerful package than that of your integrated package as it contains full working programs providing all the functions that are necessary.

**Hardware Alternatives**

Hardware decisions use the same five-step approach as software decisions

1. Evaluate system requirements
2. Identify potential hardware vendors
3. Evaluate hardware alternatives
4. Make the purchase
5. Install the hardware

Other issues to consider

- Site preparation
- New workstations
- Network cabling
- Raised floors
- Conditioned electrical lines
- Fire extinguishing equipment
- Uninterruptible power supplies (UPSs)

**How do you select the best alternative?**

Most companies’ combine

- In-house developed software
- Software packages
- Outsourcing
- End-user systems

Object is to develop a list of viable alternatives; all viable alternatives must be evaluated. Feedback from users is essential

**Presentation to management**

Presentation guidelines and suggestions

1. Give overview of the project’s purpose and objectives
2. Summarize alternatives, with costs, pros, and cons
3. Explain why the recommended alternative was chosen
4. Allow time for discussion, questions, and answers
5. Obtain final decision from management or timetable for next step

Five probable management decisions

1. Develop an in-house system
2. Modify the current system
3. Purchase or customize a software package
4. Perform additional systems analysis work
5. Stop all further work