eBusiness design models

eBusiness Modelling Report

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Introduction

This report presents a simple eBusiness model design for a hypothetical new business organisation, Luxen Theatre Systems [LTS], which is preparing to enter, as an OEM, into the emerging digital theatre industry. After the first year serving the Australian market, the business expects to expand into the Asia Pacific region.

The objective of this paper is to design an eBusiness model with the ability to sustain a strong competitive position – based on *customer service excellence, product differentiation, channel differentiation, and low cost operation.* Following the establishment of a sound business and marketing strategy, care has been taken to design the systems architecture for streamlined integration of all information systems applications. In this way, information is managed from the customer through to the supply chain – linking: customer service; order entry; inventory; production; supply chain; human resource management; financial management; and business intelligence. The integration of these applications provides a solid foundation for customer service, low cost operation, sustainable profit margins and competitive advantage. The eBusiness design has been guided by Kalakota and Robinson (2003), Afuah and Tucci (2003); and a bibliography of other sources of influence on the eBusiness design.

> This case study was prepared by John Loftus as a basis for application of e-business concepts in the unit *BSBEBUS502A – Evaluate e-business models.* The industry resources and research provided with this study are not intended to illustrate effective or ineffective management

Digital theatre industry background and market segments

Within an emerging digital theatre industry, a wide range of different customer needs can be conveniently aggregated into four *operationally useful* market segments – ***media industries****; government agencies;* ***business enterprises****; and* ***homes*** – as outlined in the central column of figure 1.

Consideration of the distinctive requirements of each market segment helps to formulate a marketing strategy – particularly the customer value propositions that fully address the needs of each segment – and helps to design an eBusiness model with *scalable architecture* and comprehensive supporting infrastructure.

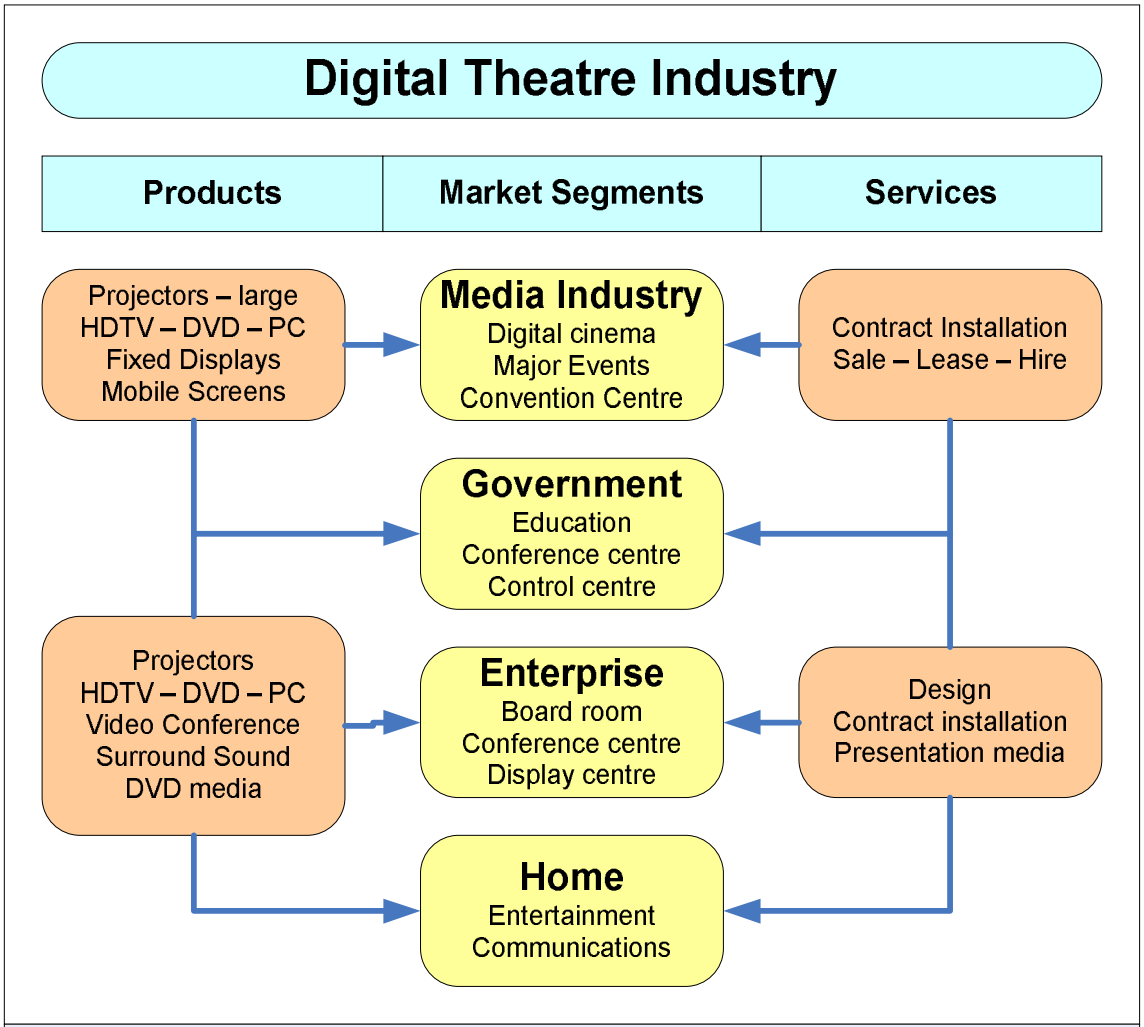

Figure 1. Market Segments Loftus Theatre Systems (LTS)

A study of the digital cinema industry, undertaken by Carolyn Giardina (2004), provides indicative trends in the application of new digital theatre technologies. Digital cinemas are now in the very early stages of a new lifecycle. Movie production studios are slowly expanding from conventional film technology to high quality digital production and distribution. However, high quality ***digital projection*** technologies still remain substantially more expensive than ***film projection*** systems.

In these circumstances, many cinemas are delaying investment in high quality digital projection, while searching for a viable business model. At the same time, installation of *lower-grade lower-cost* digital technology for cinema ***advertising*** is becoming economically appealing to theatre owners – providing an added revenue stream without increasing ticket prices.

In a detailed report, Carolyn Giardina relates how advertisers see digital cinema projection as an attractive opportunity – "*cinema advertising represented $250 million in revenue in the U.S. during 2002*" – with predictions of 30 percent annual growth. Benefits to advertisers include access to captive audiences and added impact of more entertaining productions using surround sound.

Maurice Patel (2003) describes how digital acquisition technology is steadily improving with higher quality production and lower costs. Feature films are now being shot using digital cameras recording HDTV formats. Maurice Patel explains how it may take a decade to overcome the main limitation of digital technology – "… *when digital devices will be able to respond to light at the same speed and with the same spatial intensity response as silver halide emulsions.*"

This background has profound implications for emerging business opportunities, and for the development of a competitive eBusiness model and marketing strategy. The pattern of advancing technology with lowering prices applies to all segments identified in figure 1. This pattern prescribes a business model characterised by: ***direct distribution***, ***customised build-to-order*** using ***standard modules***, ***low inventory holdings,*** and collaborative system integration with supply chain partners. The drivers for this eBusiness design have similarities to the eBusiness design implemented by Dell for the computer industry.

Customer value propositions

A tightly focused customer value proposition has been designed for each target segment – employing a bundle of products and services as presented in figure 1 and table 1.

Table 1: Customer value propositions

Customer Segments	Customer Value Proposition	Marketing Communication
(B2B) Building Architects and Telecom organisations – providing channels for customer acquisition.	Collaborative support for design and installation of conference and media presentation equipment at the early design stage of new building projects.	• Web brochure • Web catalogue • Account manager • Project manager
(B2B) Digital cinemas Convention centres	Total solution for installation of a custom designed digital projection system.	• Web brochure • Web catalogue • Account manager • Installation team
(B2B) Major event organisers	One-stop-shop for project management of multi-media projection system for major events – with hire option.	• Web brochure • Account manager • Project manager • Installation partners
(B2G) and (B2B) Video conference rooms Multi-media centres	Total solution for design, construction and installation of video conference and multi-media presentation facilities. or Web site option for self service design and direct delivery.	• Web brochure • Web catalogue • Account manager • Project manager • Construction partners • Installation partners
(B2C) Home theatre	Total solution for design, construction and installation of a home theatre system. or Web site option for self service design and direct delivery.	• Web brochure • Web catalogue • Sales representative • Project manager • Construction partners • Installation partners

Revenue Streams

This eBusiness model design obtains revenue from several sources: design services; construction services; installation services; event hire; account product sales; Web site sales; and affiliate referral commissions. Projected revenue from each stream is shown in table 2.

Customer acquisition points for theatre and conference system installations include:

- Account management and sales representative contacts with major industry segments – particularly Education, Defence, Health, and large corporate enterprises engaged in workplace training;
- Collaborating telecommunication service providers for video and teleconference facilities – these partners are motivated by increasing traffic revenue;
- Architects for commercial and residential buildings;
- Building trades persons; and
- Advertising in trade and consumer journals.

Customers' needs for some low value items may be referred to other providers using an Internet affiliate program. Affiliate programs can be conveniently managed by a Web-based third-party affiliate agency. The same affiliate manager can also provide programs to support LTS customer acquisition. Examples of affiliate management access points include:

http://www.commissionmonster.com.au (Accessed January 22, 2007)

http://www.dealgroupmedia.com.au (Accessed January 22, 2007)

The affiliate manager handles sales tracking and commission transfers to LTS.

Financial resources and revenue projections

A summary of the projected three-year income and profit performance is provided in table 2. Detailed three-year projected Sales and financial figures are available in attachments: (1) Income Statement, (2) Balance Sheet, and (3) Cash flow statement (not included with this report). Venture capital seed funding of $25,000,000 has been secured. An operating line of credit of $5,000,000 is also available to meet operating cash flow requirements. The capital funding provides for ownership of a business

premises with workshop (Brisbane based operations), equipment, inventory, systems infrastructure, training, and capitalised start-up costs.

Table 2 – Three-year revenue projections from revenue streams

Revenue Source	Year 1	Year 2	Year 3
Design services	2,000,000	3,000,000	4,000,000
Construction services	30,000,000	40,000,000	50,000,000
Installation services	10,000,000	15,000,000	20,000,000
Event Hire	20,000,000	25,000,000	30,000,000
Account product sales	70,000,000	100,000,000	140,000,000
Web site product sales (including DVDs)	70,000,000	100,000,000	140,000,000
Affiliate referral commissions - Global	100,000	200,000	300,000
Total Sales	**202,100,000**	**283,200,000**	**384,300,000**
Net Profit after interest and taxes	**30,000,000**	**45,000,000**	**60,000,000**

Marketing Communication

Marketing messages are delivered and reinforced through all customer service contact points, along with advertising and industry publicity. The mutual reinforcement of all message sources is designed to build a respected brand name. Key marketing message channels include:

- ISO 9001 Quality Certification
- Web site providing product and service information, interactive product design, and order entry facilities;
- Account managers, sales representatives, and customer reception centre;
- Collaborating Architects and Telecommunication providers;
- Construction and installation partners – wearing corporate uniforms;
- Affiliate Web links that deliver commission based leads for customer acquisition;
- Satisfied customer referrals.

Personal marketing communication is targeted by LTS account managers towards *major business enterprises, cinema franchise chains, and government* market segments. High value contracts (typically in excess of $50,000) are negotiated between LTS account managers and major business customers. There is a budget

provision for paid industry journal advertising. Publicity through industry press releases will also contribute to the marketing communication mix.

Web site design

The Web site provides an integral part of the communication mix, and is tightly linked to an internal Customer Relationship Management (CRM) system – including customer profile information – and linked with the other integrated eBusiness applications.

The USA Dell Web site provides an excellent benchmark for a ***customer focused*** Web site design, and can be viewed at www.dell.com

Typical functions for the Web site include:

- Marketing communication;
- Product brochures;
- Self service standard product configuration;
- Self service order entry for catalogue products;
- Sales and support request forms;
- Customer feedback opportunities;
- Customer order tracking;
- Customer ability to update profile;
- Customer support after sale; and
- Knowledge base for frequently asked questions.

An external Web hosting service provides an appealing option for a medium size business. Some examples of eCommerce Web hosting providers are shown in table 3. The alternative option is to host the Web site on an internal server with broadband access to the Internet. The final decision for internal or external hosting will be influenced by the preferred software and hardware solution, which is covered later in this report.

Table 3 – Outsourced Web hosting examples (Accessed: April 14, 2004)

Web Site	Comments
http://www.tophosts.com/	Web hosting resources
http://www.digitalriver.com/corporate/solutions05_00.shtml#three	Digital River eCommerce
http://www.peoplesoft.com (Acquired by Oracle)	PeopleSoft eCommerce hosting

Customer Relationship Management (CRM) System

The CRM system is designed to support many critical business functions – especially the servicing of existing customers and to support the acquisition of new major accounts. Rigby et el (2002) provide a comprehensive customer focused description of the benefits of a well implemented CRM system, and provide a useful summary as follows.

"CRM Technology can help:

- *Analyse customer revenue and cost data to identify current and future high-value customers*
- *Target your direct marketing efforts better*
- *Capture relevant product and service behaviour data*
- *Create new distribution channels*
- *Develop new pricing models*
- *Build communities*
- *Process transactions faster*
- *Provide better information to the front line*
- *Manage logistics and the supply chain more efficiently*
- *Catalyse collaborative commerce*
- *Align incentives and metrics*
- *Deploy knowledge management systems*
- *Track customer defection and retention levels*
- *Track customer service satisfaction levels*

The LTS CRM system provides mobile account managers with direct access to centralised customer contact details. Office sales representatives and management also use the CRM system for direct customer contact support and intelligence

acquisition. The CRM system is tightly linked to a knowledge management system with the ability to analyse data along the lines outlined by Rigby et el (2002).

Access to pricing information

Customers and prospects can obtain prices for standard products via the customer self-service online Web site catalogue.

For major Account Managers, the eBusiness design employs a centralised project costing, pricing, and resource availability system that is integrated with other business applications – inventory, purchasing, accounting, human resource management system, and the CRM system. Mobile account managers have Internet access to the integrated pricing system via a private Web service portal. This system is able to provide account managers with indicative pricing and likely start and end dates – using standard project proposal and costing templates.

Distribution channels

A direct distribution strategy is used for all customer segments. Channel disintermediation is designed to achieve:

- competitive channel differentiation;
- direct acquisition of customer profile intelligence and product needs; and
- minimisation of product obsolesce and channel inventory.

The USA Dell Web business model provides an excellent benchmark for ***customer focused*** distribution channels. The Web site can be viewed at www.dell.com

Low value products and consumables, including DVD and other multi-media content, can be purchased by LTS customers via the self service Web site.

Products and Services

OEM configurations in the standard range are branded with the LTS logo. This logo communicates a symbol of quality and provides an added point of competitive differentiation. The configuration components include:

- Digital projectors suitable for cinema, business enterprises, and home solutions;
- High Definition TV units
- DVD players with computer control and surround sound
- LCD display screens
- Video conference systems
- Computer hardware and software

Customers can select from a list of pre-designed configurations – directly from the Web site. Examples of conference and board room layouts can be viewed from the Web site.

Services provided by LTS include:

- Theatre projection system design and installation
- Multi-media system design and installation
- Video conference system design and installation
- Conference room and Board room design, construction, and installation

Examples of the projector product range are shown in table 4, with specifications. The full detailed product and service range is available in attachment 4 (not with this paper).

Table 4 – Examples of projector product range with brief specifications.

Typical Applications	Lumens	Technology	Maximum Resolution	Lamp Power	Model
Large Event - Cinema	27,000	DMD	2048 x 1080	6.0 KW	LTS_B27
Event Staging	17,500	DLP	1600 x 1200	2.8 KW	LTS_B18
Conference room	2,600	DLP	1024 x 768	450 W	LTS_H26
SME	2,000	DLP	1024 x 768	400 W	LTS_H20
SME - Home	1,800	DLP	800 x 600	360 W	LTS_H18
Home	1,500	DLP	800 x 480	300 W	LTS_H15

Technology legend:
DMD: Dark Metal Detection
DLP: Digital Light Processing

Supply Chain Management

Where possible, products are sourced directly from manufacturers and OEMs using an automated electronic procurement system. System configuration and testing is undertaken in the LTS workshop. The final system assembly and installation is completed at the customer premises. Project construction and installation of conference rooms and board rooms is managed by LTS and sub-contracted to selected collaboration partners – including shop fitters and electricians. For major projects, all approved suppliers and collaboration partners are provided with access to a private LTS Web portal that lists details of requests for information (RFI) and requests for quotations. An e-mail is sent to all collaboration partners when a new RFI is posted to the private Web portal. All purchasing information is automatically exchanged via Internet links with suppliers' order entry and payment systems.

Web site sales of high-volume low-value items, such as DVD titles, are automatically transferred to the vendor distribution centre for next day delivery direct to customer. LTS does not need to carry inventory for such items.

The Dell Web business model provides an excellent benchmark for supply chain management. The Web site can be viewed at www.dell.com

Payment systems

The eBusiness design provides a range of payment options for LTS customers, as described below.

For business and consumer contracts, a payment facility is available through the B_PAY system for direct deposit to the LTS business account. This approach minimises risks, expenses and delays associated with conventional cheque payment systems. Details of the B_PAY system are available at http://www.bpay.com (Accessed January 22, 2007). *"On average more than 200,000 bills are paid through BPAY via the Internet every day"* BPAY experienced 42 percent growth in 2003 – (BPAY News and Views newsletter – February 2004).

For routine self service order entry, credit card access is available through Internet hosted payment gateway services provided by most Australian banks. The ANZ bank website for merchant payment systems provides comprehensive information on a range of payment options, including details for '***Interfaced***' payment models and '***hosted***' payment models.
http://www.anz.com/business/transaction_banking/receiving_payments/RP_anz_egate.asp
(Accessed: January 22, 2007). With the ***hosted*** option, card details are submitted directly to the banking system – without the need for storage of card details by LTS. This approach minimises security and privacy risks for LTS.

Additional electronic payment options are currently under evaluation and may be added to meet special customer and supplier requests.

Human Resources

The intellectual assets and experience of skilled employees provide an essential key to success of any business organisation. At the same time, human resources generally represent a large proportion of operating expenses. In these circumstances, the LTS eBusiness design provides for a balance between employees and outsourcing. This approach meets the need for experienced management, engineers and technicians, and minimises the capital intensive components – including production and installation facilities for board room and conference room infrastructure. A total of 32 experienced LTS employees include:

- Account managers – five employees on base pay plus sales bonuses
- Sales representatives – three employee on salary plus profit bonus
- Project managers (Engineers) – five employees on salary plus profit bonus

- Technicians – ten employees on salary plus profit bonus
- Receptionists – two employees on salary plus profit bonus
- Office manager – one employee on salary plus profit bonus
- Office assistant manager – one employee on salary plus profit bonus
- Marketing Communications Officer – one employee on salary plus profit bonus
- Business development manager – one employee on salary plus profit bonus
- CIO – one employee on salary plus profit bonus
- COO – one employee on salary plus profit bonus
- CEO – salary plus profit bonus

Gathering intelligence and knowledge management

In addition to customer intelligence collected through the CRM system, a watching brief is maintained for competitor activity, economic indicators, supplier activity, technology and pricing trends. There are many Web based organisations that provide business intelligence and forecasting services. Examples are shown in table 5.

Table 5 – Business intelligence links (Web sites accessed: April 14, 2004)

Web Site	Observation
http://www.ey.com/global/content.nsf/International/Home	Ernst & Young online trends
http://www.acci.asn.au/	Australian Chamber of Commerce and Industry
http://australianit.news.com.au/	Australian newspaper IT trends
http://www.fuld.com/	Fuld – competitive intelligence
http://www.fastcompany.com/homepage/index.html	Business innovation
http://www.business2.com/b2/	Current business trends

In Australia, with the exception of Dell, the competition is weak and fragmented in all of the targeted market segments. There is now an opportunity to establish a strong presence in a new growth market. Sales growth will accelerate in response to rapidly improving technology and declining costs. A short list of competitors is shown in table 6. Dell offers a competitive product range for the small to medium enterprises. Dell has no provision for large scale theatre system design, construction, or installation.

Table 6 – Competitors (Web sites accessed: April 14, 2004)

Competitor	Web site	Observation Summary
Barco	www.barco.com	Major global operation targeting very large industry customers in Europe and North America. A Balance Sheet that could be stronger reflects substantial overheads. No self service order entry
Dell	www.dell.com.au	Major supplier for SME market No design or install service
Home Cinema P/L	www.homecinema.com.au	Targets Victoria – home and small business markets. Includes design and install Mixed manufacturers' branding No self service order entry

Business performance and directional policy indicators

Key performance indicators are shown for a directional policy matrix in table 7.

Table 7 (Three dots are most favourable. Fewer dots are less favourable)

Performance Criteria	Year 1 ($)	LTS index	Competitor index
Ability to compete			
Revenue sources		OO	OO
Revenue	200,000,000	OO	OO
Direct costs	160,000,000	OOO	OO
Contribution margin (index x 10)	40,000,000	OOO	OO
Marketing and Fixed Costs	10,000,000	OO	O
Operating Profit	**30,000,000**	OOO	O
Market segment focus		OOO	OO
Customer benefits (value proposition)		OOO	OO
Customer self service		OOO	O
Customer feedback opportunities		OOO	OO
Customer ability to track order		OOO	O
Customer ability to update profile		OOO	O
Customer support after the sale		OOO	OOO
Product / Service delivery performance		OOO	OOO
Distribution channel differentiation		OOO	OO
Product differentiation		OOO	OO
Brand strength		OO	OOO
Business synergies (index x 5)		OO	OO
Online sales channels		OOO	O
Low cost leadership		OOO	O
Industry competitive position		OOO	OOO
Integrated systems infrastructure		OOO	OO
Web Services infrastructure		OOO	O
Weighted average index		**2.8**	**1.9**
Market Attractiveness			
Market size		OO	OOO
Market growth		OOO	OOO
Competitor rivalry		OO	O
Barriers to entry		O	O
Threat of substitutes		OO	OO
Suppliers bargaining power		OO	OO
Channels bargaining power		OOO	OOO
Customers bargaining power		O	O
Weighted average index		**2.0**	**2.0**

Systems Software and Hardware

Care has been taken to ensure that the eBusiness design is customer focused and market driven – rather than being driven by any particular software or hardware technology. The formulation of customised value propositions for each targeted market segment is one example of the market driven approach. The ***consumer*** segment is, for the most part, served through the Web site, while the ***major business*** segments are primarily served by LTS account managers. Each of these communication channels needs to be fully supported by the eBusiness infrastructure. For example, the functions listed earlier under CRM need to be included in the software specification.

Rigby et el (2002) explain the pitfalls awaiting managers who expect software CRM systems to manage customer relationships. In contrast, the authors' explain the subtle difference:

> *"CRM is the bundling of customer strategy and processes, supported by the relevant software, for the purposes of improving customer loyalty and, eventually, corporate profitability. "*

In these circumstances, selecting software and hardware for integrated enterprise applications is a major undertaking that needs to be informed by expertise, matched to detailed business processes, and evaluated by the business team. This eBusiness design provides a basis for preparing a request for information (RFI). At this stage, several candidate system vendors (shown in table 8) have been identified for further evaluation of product offerings and total cost of ownership (TCO). Other vendors with less expensive options may also need to be evaluated. An RFI template is available in attachment 5 (not included with this report).

Dell and PeopleSoft provide a combined hardware and software package that uses the Dell direct business model and the PeopleSoft real-time enterprise integrated applications. A useful design and dimensioning template is freely available at: http://www1.us.dell.com/content/topics/global.aspx/alliances/en/peoplesoft?c=us&cs=555&l=en&s=biz

Table 8 – Candidate vendors for enterprise application integration software.

Major Vendors
http://www.peoplesoft.com/corp/en/public_index.jsp PeopleSoft (now Oracle) licences a complete suite of integrated modules for industry-specific business applications. PeopleSoft hold 6% share of the world market for integrated enterprise application software. An outline of the PeopleSoft suite is shown in table 9. The PeopleSoft 'EnterpriseOne' version uses platform independent technologies for scalable operation between internal business application modules and with external partners' information systems. The communications and data sharing technologies are built on the universal language of XML. This technology allows for the provision of ***Web services*** for partner collaboration. PeopleSoft presents a clean customer focused Web site. Further evaluation of all options suited to LTS business processes is needed.
http://www.sap.com/solutions/smb/ SAP is the largest provider of integrated enterprise application software, with 20% market share. The SAP Web site presents a confusing array of options and raises questions about the concept of a customer focus. Further evaluation of all options suited to LTS business processes is needed.
http://www.oracle.com/applications/architecture/ Oracle offers a highly scalable solution and sets the benchmark for database performance. Oracle eBusiness Suite 2003 uses a single database model for "*seamless*" integrated applications. Oracle holds 5% of integrated enterprise application software.

After initially being blocked by the US Department of Justice in a bid to takeover PeopleSoft – Kirkpatrick (2004), Oracle has since managed to implement the takeover. This could be interpreted as a vote of confidence in the PeopleSoft family of products.
Further evaluation of all options suited to LTS business processes is needed.

For the purpose of providing a set of benchmarks, modules provided in PeopleSoft 'EnterpriseOne' are outlined in table 9. Supporting tools are outlined in table 10. All PeopleSoft modules are designed for Internet ***real-time*** operation.

The hardware, operating system, and Web hosting options need to be evaluated in conjunction with the application software. Operating system and office application benchmarks include the Microsoft family: Windows Server 2003 Enterprise edition, and MS Office.

The LTS eBusiness design can be matched to the software and hardware needs by using the Dell / PeopleSoft template. The option of using the PeopleSoft hosted solution should also be evaluated. The evaluation may require an iterative process, and should consider the ***total cost*** of each option.

Table 9 – PeopleSoft – EnterpriseOne Product Line

Source: http://www.peoplesoft.com/corp/en/products/ent_one/index.jsp

PeopleSoft® EnterpriseOne is a complete suite of modular, pre-integrated industry-specific business applications designed for rapid deployment and ease of administration on a pure internet architecture. It is ideally suited for organizations that manufacture, construct, distribute, service, or manage products or physical assets.

Since the takeover by Oracle, all of the following URL's have been redirected to a single page at: http://www.oracle.com/peoplesoft/integration.html
The original links have been retained in this paper to illustrate the range of e-business modules that can be considered in the e-business design.

Asset Lifecycle Management
Asset Lifecycle Management gives you the tools to directly control your company's performance to make the most out of what you have today.
All Asset Lifecycle Management Product Modules

Customer Relationship Management
Support and streamline your entire business process from original customer contact through post-sales service.
All CRM Product Modules

Financial Management
PeopleSoft EnterpriseOne Financial Management solutions are pre-integrated, and link seamlessly with all other PeopleSoft EnterpriseOne solutions.
All Financial Management Product Modules

Human Capital Management
PeopleSoft EnterpriseOne Human Capital Management delivers more effective customer service to your workforce through our Web-based Employee and Manager Self-Service applications, as well as collaborative workflows that streamline approval processes and transactions.
All HCM Product Modules

Project Management
Get rich, Web-enabled applications delivered to project professionals wherever the job takes them.
All Project Management Product Modules

Supplier Relationship Management
Manage your business process through real-time collaboration during design, demand, production, and distribution planning.
All SRM Product Modules

Supply Chain Management
PeopleSoft EnterpriseOne Supply Chain Management solutions support processes that promote revenue growth, inventory reduction, better asset utilization, and cost-of-goods improvements by enabling best business processes.
All SCM Product Modules

EnterpriseOne Tools and Technology
Incorporate the tools and embedded internet technologies to become a real-time enterprise.

All PeopleSoft EnterpriseOne Product Family Modules

Table 10 – Outline of PeopleSoft eBusiness supporting technology and tools

Source: http://www.peoplesoft.com/corp/en/products/ent_one/tools_tech/features/index.jsp

Technology

- **Technology Foundation:** Open-standards based, pre-integrated software infrastructure runs PeopleSoft® EnterpriseOne solutions.
- **Web Client:** Offers access to applications via an easy-to-use and deploy browser-based interface. A Windows client is also available to address the needs of a diverse user base.
- **Security:** Controls and manages access across your enterprise software.
- **Interoperability:** Offers a full range of other solutions including EDI, MQseries, and MSMQ to name but a few of the options available.
- **Workflow:** Provides user-defined capability to automate information flows.
- **Middleware:** Manages processes and communications between applications, engines, databases, and operating systems.
- **Platform Support:** Provides the capability to choose the appropriate hardware platform to meet your needs.

Tools

- Process Modeler: Enables visual documentation and modeling of business processes to reduce time and expenses associated with your implementation.
- **Design and Development Tool:** Makes it easier to customize the solution to match your business processes.
- **AutoPilot:** Enables automated testing of your solution for greater confidence and improved reliability of your implementation.
- **Report Writing Tools:** Provides a report writing "wizard" to enable you to easily customize reports based on data within your PeopleSoft EnterpriseOne applications.
- **Authoring for Web-Based Training:** Gives you the ability to create and change your own web-based courseware.
- **Web-Based Courseware:**
  - Financials
  - Human Resources and Payroll
  - Distribution
  - Manufacturing
  - XPI™ (eXtended Process Integration)

Conclusion

The starting point for any eBusiness design is a viable business operation with a customer focused marketing strategy. No amount of advanced technology can be expected to rescue a flawed marketing strategy or business operation. Efforts by major packaged software vendors to utilise universal standards gives good reason to look forward to flexible integration of enterprise applications, and a competitive edge.

The ***large-enterprise*** market segment presents an attractive opportunity, and is the segment where LTS has a reasonable ability to compete. The ***SME*** market segments,

while attractive, are likely to become very competitive with new entrants and an established presence by Dell. The significant advantage for LTS is the total solution with design, construction and installation – a key point of competitor differentiation.

This eBusiness design provides a new organisation with the ability to achieve several competitive advantages – including the opportunity bypass many of the enterprise integration problems faced by established competitors. The PeopleSoft package, described in this report, provides examples of innovative modules built on XML, SOAP, and WSDL universal standards – visit http://w3.org for details. The W3C Web Services Activity Statement summarises the XML benefits as follows.

> *"The advent of XML makes it easier for systems in different environments to exchange information. The universality of XML makes it a very attractive way to communicate information between programs. Programmers can use different operating systems, programming languages, etc., and have their software communicate with each other in an interoperable manner." (W3C)*

The open standards approach also provides the flexibility needed to conveniently add new applications as required. This is an important consideration for a growing business.

The eBusiness design process is a complex and critical part of any competitive organisation. Kalkota and Robinson (2001) describe the challenges, minefields, and roadmap to a successful eBusiness design and implementation. More recent papers describe the advances in open standards and the benefits of employing these standards for enterprise application integration.

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