Managed Hosting:
Partnering and Best Practices to Support Education Strategy

Blackboard | Managed Hosting℠

Managed Hosting: Partnering and Best Practices to Support Education Strategy

Within education, Online Learning is playing both a central and a critical role in the delivery of Teaching and Learning, Research and Enterprise activities of university and college organisations, and the overall experience of students and staff.

the education sector is "catching up" with other sectors where the use of outsourcing and third parties has been more prevalent.

In the last ten years, Online Learning has become a fundamental element of an organisation's educational strategy which in turn is enabled by the underlying IT strategy. A typical IT strategy will be made up of many elements including architecture, applications portfolio, and service catalogue. Of increasing importance is the consideration and development of a "sourcing" sub-strategy for IT provision.

Traditionally, IT departments in education have been conservative in their approach to providing infrastructure, applications and services with an almost universal preference to utilise "in house" resources rather than third parties. There have been exceptions in areas such as hardware support and maintenance, but with increasing pressures on staffing, skills and budgets coupled with technology changes such as cloud computing, the climate has, over the last three to five years, begun to change, albeit slowly. As a result, more and more educational organisations are either using or considering third party services to satisfy both business and technology objectives. Due to operational criticality, the drivers to use such services are not necessarily coming from within IT, but from across the organisation.

In some respects, the education sector is "catching up" with other sectors where the use of outsourcing and third parties has been more prevalent. These other sectors, pro-actively use third party services to meet business goals, add value and optimise their resources. They are not seen as a "threat" to in-house provision but rather, as complementary resources and partners. The education sector can, and should, learn

from the experience of other sectors where rapid technology changes have led to better value provision of services. In turn, this can allow organisations to focus on improving the educational experience and accountability while managing costs and indirectly strengthening their image and reputation at the same time.

This paper looks at the managed hosting of Online Learning in relation to other types of third party provisioning; reviews the areas of benefits and costs from the perception of different decision makers and users; and examines the elements of a successful commercial relationship built on trust, transparency and mutual respect.

Hosting Services

Gartner defines "outsourcing" as "a multiyear or annuity-based contractual arrangement, whereby a company provisions services on an ongoing basis at a specified level of competency. Outsourcing involves a degree of transfer of management responsibility for the ongoing delivery of IT services to an external provider, with performance tied to service levels or outcomes. Outsourcing encompasses the management of business processes, application software and IT infrastructure (data centre, desktop or network). These three areas are commonly referred to by client enterprises as BPO, AO and IT infrastructure outsourcing."

Performance of the provider is directly related to the provision of services being tied to a combination of outcomes and service levels. An outsourcing agreement can include a range of services from product support and consulting to development and integration. As a result, the external provider may acquire the physical assets and employees of the business client.

With increasing pressures on staffing, skills and budgets coupled with technology changes such as cloud computing, the climate has, over the last three to five years, begun to change.

Over the recent past, outsourcing has changed to become a new form of "hosted" solution," with considerable overlap and confusion between the different types of hosting.

"Hosting services," where the external provider utilises their own infrastructure, is seen as the most recent manifestation of the outsourcing concept and is becoming increasingly common. It has been facilitated by rapid technology developments such as cloud computing and virtualisation. These types of hosting services range from a "public cloud" to managed hosting:

(a) Managed or Dedicated Hosting:

Most suited to organisations who require:

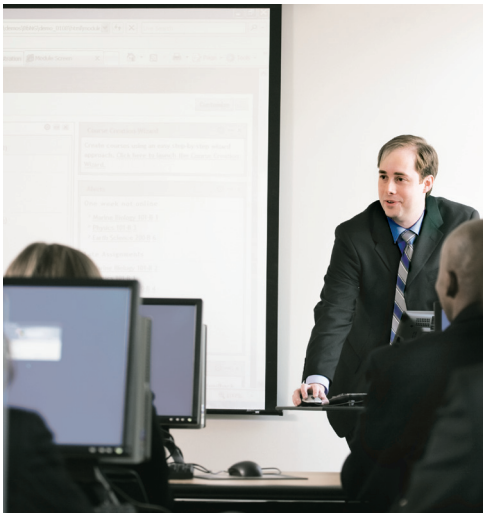
- Dedicated infrastructure with high "up time" guarantees
- Stringent security measures
- Scalable, resilient hardware
- Around-the-clock support from a dedicated team of technical staff and account managers familiar with application expertise
- Comprehensive service-level agreements
- The ability to customise and enhance their application environment

Since these types of solutions are designed to meet individual customer specifications and requirements, they are suitable for the mission-critical systems of most businesses and organisations. They also offer institutions the opportunity to improve their risk management particularly in relation to business continuity and disaster recovery.

Additional benefits of managed hosting can include the ability to convert capital expenditures such as infrastructure, licences and upgrades to a known operating expenditure over a number of years. Effectively, the organisation is leasing instead of purchasing hardware and software. In terms of support, many managed hosting solutions focus on a functional area such as "Online Learning" and include staff who understand the functional application, process flows and related databases, data storage, and how each relates to the hardware infrastructure. They often are familiar with relevant business processes and the need to integrate the hosted application with other applications run by the client.

(b) The Public Cloud: Always delivered on a shared hardware infrastructure, resulting in lower costs and prices ranging from "free" to "utility pricing" where clients only pay for the resources used. Many public cloud offerings make use of the latest virtualisation technology with almost instant scalability and dynamic provisioning. Therefore, it's an attractive solution for hosting basic websites and applications with seasonable or unpredictable loadings. There is limited customisation available and support can be restricted to certain hours and types (i.e. e-mail or web). It's also important to note that the information security consequences of a shared infrastructure may impact whether a public cloud can be used for sensitive materials. It is clearly attractive when funds are limited and convenience is important as long as the users fully understand its limitations. As examples, some universities and colleges leverage Microsoft and Google technology that can be described as public cloud solutions for e-mail and collaboration. However, these solutions may come with availability and security concerns as they relate to specific institutional needs like service levels and data ownership.

Many public cloud offerings make use of the latest virtualisation technology with almost instant scalability and dynamic provisioning.



(c) The Private Cloud: Enables a client to either consolidate their own infrastructure or completely remove it by leasing from a third party. There are potential savings in capital costs, energy usage and sustainability benefits. It's a solution built on dedicated hardware (sometimes called dedicated virtualisation) and is typically backed by comprehensive service-level agreements with dedicated account teams providing 24x7x365 support. The dedicated servers run virtualisation software to create multiple virtual servers on a single physical server. Each virtual server exists independently and works in the same way as a standard physical server. As there is high utilisation of processing power, a leased private cloud infrastructure can combine resource and budget optimisation with rapid scalability that can result in reliability and security that rivals a managed hosting solution.

The client may have a spike in demand or require concurrent efforts, such as maintaining the old environment, while building or deploying the new technology.

Compared to managed hosting, private cloud managers are typically less knowledgeable of a specific application's functionality and related processes, and with a private cloud, there is some degree of reliance on the Internet-based web services. In certain types of contracts, the client may have administration access to the servers (unlike managed hosting) which introduces a different set of risks. There is no doubt, however, that over the recent past outsourcing has changed to become a new form of "hosted" solution" with considerable overlap and confusion between the different types of hosting. The lines between public cloud, private cloud and managed hosting solutions are becoming blurred as technology changes, and moving forward, hybrid solutions could become the norm.

For most organisations in the future, provision of the solutions for infrastructure and applications will be from a mix of sources with managed hosting playing a crucial role for mission critical applications that need to scale quickly and continually change and/or enhance functionality. However, when considering a move to a managed hosting solution, there are key differentiators related to successful outcomes and desired business benefits. This is particularly true for the managed hosting of mission-critical systems and applications.

It is assumed that an organisation considering any form of hosted solution will have defined, documented and understood their infrastructure and applications architectures as these are important inputs to a successful hosted solution of any type.

Business Rational for Managed (Dedicated) Hosting

Organisations which are successful with alternative sourcing approaches, like managed hosting, as part of an overall long term strategy, base their decisions on:

- Effective governance and proper planning
- Sound commercial understanding and financial arrangements
- Transition management plus strong relationship management
- Operational agility, efficiency and efficacy
- People and processes

Costs can be saved but cost-saving opportunities must be directly linked to achieving business value and business objectives. It can be difficult

for organisations to recognise and quantify the potential sources of savings in their organisation particularly where strong "silo" organisational structures exist. However, in making a decision to use alternative sourcing, the focus should not be on cost alone, although it frequently is when compared with internal provision by the IT group.

A critical step in selecting an alternative provider includes thorough analysis of the organisation's reasons and requirements for managed hosting. One needs to consider cost in the context of what is being outsourced and why, together with the potential business benefits of innovation, transformation and competitive advantage. Consequently, input will be required from across the organisation, particularly from Academic Management, Finance and IT.

These requirements need to be matched against the provision from the provider in terms of business value, the sources of saving and the underlying principles of how the provider can help the organisation both save and realise business objectives. The provider should be able to demonstrate experience and ability to deliver quality resources, operational efficiency, consistency and process maturity in relation to critical success factors for the sector in question (i.e. Education). This has equal relevance to any analysis of costs versus benefits.

Equally it must be realised that there are tasks and competences that must be in place internally within an organisation, or rapidly developed if the business value and cost savings of managed hosting are to be realised.

It is assumed that an organisation considering any form of hosted solution will have defined, documented and understood their infrastructure and applications architectures.

The Sources of Value and/or Business Benefits from Managed Hosting

Independent research, by business schools, consultancies and research organisations such as Gartner, has identified the elements of business value and their characteristics that providers of IT services, including outsourcing and managed hosting, can bring to an organisation. The sources of savings and business benefits are as shown the Table 1. Value from the savings/benefits occurs either because of significant ongoing investment made by the provider to develop and improve its service offering or because the provider has the resources to tackle a shortfall or solve a problem.

Table 1: Gartner Research

Sources of Value/Business Benefit from IT Services

Intellectual Property – The service provider has developed specific intellectual property (intellectual property (IP)) that is relevant to the client's business issues. When applied to the organisations challenge, the offering yields significant business benefits. It is not enough for the service provider to claim a general base of IP — it must be directly applicable to the client's problem.

Methodology – The service provider has a methodology that delivers a higher quality and reliability or a best in class approach to issues to reduce time and effort.

Specialized Expertise – The service provider has subject matter experts. These key personnel have experience and knowledge that are unavailable in the enterprise.

Automation/Industrialisation – The service provider has developed an automated approach to a process that delivers efficiency, efficacy, or agility.

Access to Resources – The client may have the talent or people to perform the work, but these personnel are unavailable. Alternatively the client may have a spike in demand or require concurrent efforts, such as maintaining the old environment, while building or deploying the new technology.

Faster Time-to-Market – The client may need to achieve results in a shorter time and require faster implementation than it can achieve with internal resources only. Additionally the client may need to achieve "return on investment" opportunities more rapidly or ensure that the optimisation effort remains in alignment with its overall strategy when the project is finally done.

Access to Skills/Competencies – These competencies may be industry-specific, process-specific, functional or technology-based.

Geographic Requirements – The enterprise has limited operational skills, business knowledge or legal competencies in the geographic region where it has the specific requirement.

Ref: Gartner Research: F. Karamouzis, 2009 "Best Practices – Saving Costs Through Outsourcing and IT Services"

In the first four benefits, value occurs because the provider has made significant investment in R&D to develop and improve the offering which is continuing, and in turn this leads to a maturity of provision. In the other four benefits, the source of value is that the provider fills a "gap" or "fixes" a problem by substituting resources, rather than an extensive R&D cost.

Managed hosting providers typically list a range of specific benefits that embrace one or more of the following:

- High availability and performance for a business-critical application
- Reliability, resilience and scalability
- Support 24x7x365
- Rapid deployment of new applications and upgrades
- Management of licensing
- Appropriate service-level agreements
- Tailored commercial proposals
- Reduced client costs ranging from property and equipment to energy
- Secure access include access my multiple devices and remote access
- Secure storage of data and information
- Legal and professional body compliance

While all these benefits are true and tangible, it is absolutely critical that the organisation (client) understands the source of the value and the business benefits they need in relation to what they are buying.

Some form of comprehensive straight-forward cost-benefit analysis can help, provided that the underlying model is relevant to the sector. Both client and provider will need to be open with each other in creating a common understanding of what determines the price and value of the hosting offer. This is particularly true when making a comparison to the internal provider where the later may not have sufficient data to cover all the costs on a like for like basis.

It must be realised that there are tasks and competences that must be in place internally within an organisation or, rapidly developed if the business value and cost savings of managed hosting are to be realised.

The Potential Sources of Saving

In order to fully understand the potential sources of actual savings within the organisation, Gartner recommends that the purchaser should pose five key questions both internally and to the service provider. These questions, shown in Table 2, are designed to help organisations understand, clearly articulate and document the sources of saving and show how they will be achieved.

In order for both sides to achieve their respective objectives and goals once a contract is signed, it's critical that the relationship between client and supplier is characterised by high-quality relationship management and an open information exchange.

However, of equal importance is that the organisation understands why it is out sourcing with respect to business goals and objectives as this sets the basis for all aspects of the operational relationship and approach including governance, communications and building the relationship with the supplier.

In a long-term sustainable commercial contract, both business risk and business value change with time as strategic objectives change. This is particularly true for mission-critical areas such as Online Learning which are growing in usage and functionality. In turn, this change will cause increased usage of the underlying IT infrastructure. It is therefore sensible that the relationship builds a joint vision for business objectives in relation to changing costs and savings as well as taking account of external factors such as exchange rates and inflation.

Taking the Measure of the Partner/ Service Provider

With managed hosting, the client should be looking for three inter-related competencies from the provider, each of which comprises a number of over lapping capabilities:

1. **Relationship Competency** comprises capabilities that determine the extent to which the provider is able and willing to align and meet the client's requirements over time. These capabilities include planning and contracting, program management, governance, organisational design, customer development and leadership.
2. **Delivery Competency** comprises capabilities that determine the extent to which the provider responds to the client's need for day-to-day operational services. These capabilities include governance, leadership, program management, business management, sector understanding, detailed application knowledge, communications and behaviour management.
3. **Transformation Competency** comprises competency that determines the extent to which the provider can deliver innovation, transformation and service improvement. These capabilities include leadership, behaviour management, program management, customer development, process re-engineering and technology exploitation.

Table 2: Gartner Research
Understanding the Sources of Savings

Question 1: Efficiency-Based Sources of Savings

What are the potential sources of savings through one or more key levers of operational efficiency?
These triggers usual fall into the following categories:

- Labour (Staffing) – the number of staff hours at a specified and consistent level of quality; achieving a lower cost of staff adds efficiency
- Location – cost of staff hours based on location at a specified and consistent level of quality
- Volume of Transactions – the units of work

Question 2: Effectiveness-Based Sources of Savings

What are the sources of savings through process and/or delivery effectiveness?
These sources of effectiveness usually fall into the following categories:

- Better – productivity that involves executing transactions using a more effective process to improve quality, standardisation or consolidation; economies of scale may affect efficacy as well
- Faster – the ability to execute processes faster or complete process automation
- Smarter – reduce the volume of transactions or units of work through redesign, standardisation, consolidation or reconfiguration of the processes that results in some transformation.

Question 3: Agility-Based Sources of Savings

What are the sources of savings through agility?
These sources of agility usually fall into the following categories:

- Knowledge Management and Knowledge Creation – information flow, integration and interoperability underpinnings
- Awareness – the right information at the right time which is based on information flow
- Adaptability – the ability to confront unexpected changes
- Flexibility – dealing with expected changes including strong global governance

Question 4: Time Factors Evaluated in Savings

How will savings vary over time?
All service providers should explain:

- What the total savings will be each year
- How the savings will grow or shrink with time
- How they will pace savings year on year

Question 5: Variables Affecting Savings

How will the source (efficiency, effectiveness and agility) of savings vary over time?
All service providers should explain:

- How the mix of the source of savings will change year on year
- Why they expect this change to occur

Ref: Gartner Research: F. Karamouzis, 2009 "Best Practices – Saving Costs Through Outsourcing and IT Services"

Tapping into the expertise, skills and IP of the provider as part of a shared vision allows the institution to grow its abilities to manage and develop "outsourcing."

The supplier provides evidence of these competencies and capabilities with:

- Baseline statistics, from its client base plus verifiable case studies.
- A demonstrated methodology for how the managed hosting solution will be deployed, frequently using specific Centres of Excellence within the supplier organisation.
- Models, based on experience, for discussing suitable operational governance of the managed hosting solution that minimizes business risk for the individual client and ensures appropriate communications.

Considerable emphasis needs to be placed on the three pre-requisite areas of planning, delivery/service-level agreements and commercial arrangements covering the lifetime of the contract. Internally, the client needs a consensus across the organisation and with the supplier about the business value and the potential savings they are looking to achieve.

In order for both sides to achieve their respective objectives and goals once a contract is signed, it's critical that the relationship between client and supplier is characterised by high-quality relationship management and an open information exchange. A simple decision making framework for the partnership needs to be in place which is consistent with the client's overall governance and time frames. Escalation routes need to be published and well understood.

A solid long-term managed hosting relationship needs "two to tango" and is essentially built on trust irrespective of a formal contract.

Conclusion

Online Learning is today a critical component of Teaching, Learning, Research, and Enterprise strategies. Organisations must ensure that the systems enabling Online Learning operate at peak performance and deliver business value to all stakeholders.

Managed hosting, particularly from an application provider who understands the educational processes and functionality, can be an important part not only of consistent delivery of the online application but of a partner strategy. In the current economic climate, managed hosting offers the potential for savings and the realisation of business value.

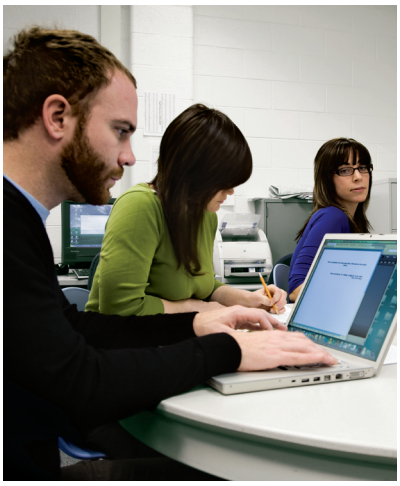
However, for managed hosting to be successful, the client must not just focus on cost, but consider the provider's ability to deliver quality resources, operational efficiency, consistency and process maturity. The client must analyse business value, the sources of costs and savings across the organisation rather than to the immediate budget holder, and understand the underlying principles of how the provider can help the organisation save money and realise business objectives.

There will be a range of organisational reasons for outsourcing via managed hosting which generate requirements that the potential providers need to demonstrate they can meet. Comparisons with the alternative internal provision need to be comprehensive and consistent based on accepted cost benefit models pertinent to the Education sector.

As such, the steps to a successful managed hosting solution can be summarised as:

- Understanding the context of activity to be outsourced - what and why, together with the capabilities to support the relationship with the provider
- Selecting a suitable model and methodology from planning to operation
- Establishing service-level agreements that relate as much to key sector success factors as technology parameters
- Defining the roles of the CIO, CFO and academic decision makers in agreeing and communicating the business value; exploiting the provider's strengths; and ensuring the use of appropriate cost/benefits models
- Re-evaluating value over time by working closely with the provider to identify and manage changing business risks
- Establishing effective and sustainable governance and relationships
- Tapping into the expertise, skills and IP of the provider as part of a shared vision that allows the institution to grow its abilities to manage and develop "outsourcing"

In the future, we expect the cloud to play a growing role in delivering powerful learning experiences by connecting students to real-world research and collaborative learning experiences.



Reliability, security, scalability, agility and availability are all reasons cited for choosing managed hosting.

Clearly, a positive first experience into managed hosting will impact the long-term organisational view of this form of provision. However, success depends on both the client and provider adopting the correct role and an honest understanding of their relative levels of maturity when it comes to considering all aspects of this type of provision.

Reliability, security, scalability, agility and availability are all reasons cited for choosing managed hosting. However, organisations must also consider lack of skilled personnel; more complex technology; capital versus operational expenditure constraints; sustainability; and business continuity as part of the equation. Ultimately, managed hosting can only work because of trust in a relationship built on delivering service.

The essence of managed hosting is providing a service based on people as much as technology. A successfully hosted online environment is responsive to individual organisation's needs and preferences; allows an organisation to concentrate scarce resources on core activities; provides services not available by other means; and grows with changing demands and requirements over time.

When it works, it is in a sense invisible and taken for granted but when it does not, it has failed its basic promise. Consequently for long-term success, apart from the building of relationships, the relevant commercial agreements must have rigor, clarity and flexibility. This applies to all aspects from pricing to service levels. Organisations new to managed hosting should seek to learn from the experience of those who have gone down this route, irrespective of sector.

References / Bibliography

Gartner Research: Best Practices: Saving Costs through Outsourcing and IT Services (F. Karamouzis, Feb 2009)

Rackspace White Paper: A Decision Makers Guide to Cloud Computing and Managed Hosting (Autumn 2009)

Blackboard Research : Institutions Weigh In on LMS Hosting in Higher Education (Eduventures Nov 2007)

JISC: The e-Revolution and Post compulsory Education: Using e- Business Models to Deliver Quality Education (edited by J. Boys and P. Ford published 2008)

MITSloan Management Review: Taking the Measure of Outsourcing Providers : Feeny, Lacity Willcocks (2005 Spring edition)

About the Author

Tony Lewis is Director of "TML Consultancy," a consultancy business focused on delivering value and benefits from investment in information technology and information services. He has over 30 years experience in both the private and public sectors as an Executive Director and senior manager. This is built on a solid foundation of management consultancy and engineering/scientific practice. He has a wealth of knowledge and experience across a range of industries and organisations, in the pragmatic application of ICT and related services, delivering customer service and meeting organisational requirements

Tony's career began as a Civil Engineer and Scientist responsible for all aspects of environmental data monitoring and collection networks in a UK regional Water Authority. He then moved into Management consultancy, Marketing and subsequently senior IT management in the commercial ICT sector working for Fujitsu (formerly ICL). He specialized in data and information management particularly in Government, Health, the Utilities and Education. He was subsequently approached to become Chief Information Officer for a large enterprising UK University where he spent eight years with responsibility for the delivery of IT, Library and Learning services. In this same period he was Executive chairman of a software SME plus serving on numerous boards, committees etc at regional, national level and international level. He was part of the Vice Chancellor's Change management team of six people who recommended significant changes in Governance, processes, Management and organisation which subsequently have been acted upon.

Tony established his own consultancy business in October 2009 to utilise his experience of IT, Management Consultancy and Information services to achieve successful long lasting business and organisational improvements for Corporations, SMEs and Public services with a particular focus on Education, Government and Health. As an innovative and progressive consultant, his focus is the pragmatic use of Information Technology, data & information to enable goals to be met and valued services delivered.

To contact the author:
Tony Lewis
TMLConsultancy
Telephone: 01744 614993
Mobile: 07771 943179
Email: tmlconsultancy@googlemail.com

Worldwide Headquarters
650 Massachusetts Ave, NW, 6th Fl.
Washington, DC 20001
+ 1.800.424.9299, ext. 2427
+ 1.202.463.4860, ext. 2427

blackboard.com

Amsterdam, The Netherlands
Blackboard International B.V.
Paleisstraat 1-5
1012 RB Amsterdam
The Netherlands
Direct: +31 (0) 20 788 2450
Fax: +31 (0) 20 788 2451