

# Strengthening your Business Case for Using Cloud

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## **Proven Business Use-Cases & Analysis**

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## **Executive Summary**

What can you, as a buyer do to strengthen your business case for Cloud and keep your company competitive?

What are some real-world success stories where companies have applied Cloud to solve specific business challenges?

What business risks are clients facing which have influenced Cloud buying decisions?

As a seller of Cloud solutions, what are some common business requirements that are fitting for the Cloud?

Incorporated is a unique collection of Cloud business use-cases, findings, and conclusions that can help executives and business process owners make the appropriate Cloud investment decisions. By describing real-world granular business problems, requirements, and analysis of the value and business implications of Cloud computing, it is our goal that reading this paper will equip you with the necessary business insights to justify your path for using Cloud.

### **Introduction**

With the rapid emergence of technologies, it is important for business executives and stakeholders to focus on the real business challenges and the needs of the enterprise. This White Paper provides a high-level depiction of real-world business problems that were addressed using Cloud computing. By picking the business use-cases that most closely align with your situation, or by analyzing the key requirements of others that have adopted Cloud, you can build a stronger case that justifies the need for using Cloud in your organization.

### **Making the Case for Cloud**

An essential aspect of any successful business case is the testimonials of others. Making the case for Cloud is no different. You need to be able to communicate proven instances where companies have experienced simplified business processes, solution delivery with expedience, and greener information technology (IT) while at the same time realizing faster, positive impacts on the bottom line. In essence the enclosed business use-cases will prepare you to answer the following question (in business terms): “What are some key business problems that are influencing companies to use the Cloud and why?”.

Furthering the justification, you need to be able to skillfully interpret business requirements (or pains) and translate them into the appropriate business recommendations. These recommendations will likely include the adoption of leading business technologies such as Cloud, but quite frankly the business users generally are not interested in the solution delivery details. They want to know that you understand their situation well enough to be able to fix the problem. In this paper we provide detailed business requirements to help you through this process.

A final point in making the case for Cloud is to be able to balance innovation and risks in order to address business complexities. In fact, part of the risk mitigation process is to assess the business value and impacts of Cloud in terms of costs, processes, people, and technology. Enclosed you will find cases where organizations have experienced innovation and faster yields (e.g., product to market) by using Cloud.

As you read on you will also find the commencement of a platform for studying business complexities and what companies are doing to remain competitive.

### **Navigating this White Paper**

#### ***Finding the Use-Case that Fits your Situation***

To find common problems that were addressed using Cloud computing, you can navigate in many ways:

- Search by Industry; for example, Financial Services
- Search by Category – we include the taxonomy or high-level grouping of the business cases; an example category is Cross-Industry
- Search by Problem Type – a specific type of business problem that was addressed using Cloud; an example problem type is Rapid Deployment

## ***Strengthening your Business Case for Using Cloud***

### ***The Analysis***

This paper provides a top-down view of business situations and analysis of where Cloud has been applied to optimize business performance – including costs. The business impact and value analysis sections discuss the risks and the business value of the use-cases as well as the risks introduced by using Cloud.

### ***The Conclusion***

The conclusion contains information on Cloud business influencers and trends, key findings, and recommendations. You will also find that throughout this paper we provide insights into business complexities that companies are facing and where Cloud is being considered to help address these challenges.

## Cloud Business Use-Cases

Each use-case shows business problems addressed by using Cloud computing. This paper describes the business considerations that influenced the organization to use Cloud computing, but does not describe the technical considerations that determined how the organization used Cloud computing. The use-cases are drawn from real-life experiences. They are representative of the kinds of organization that can benefit from using the Cloud.

The business use-case template is comprised of six main elements:

1. Category – industry, sector, or environment
2. Company Background (Optional)
3. Business Problem/Description of the situation
4. Actors impacted by this business problem
5. Key Business Requirements (encompasses quality and/or service-level requirements – where known)
6. Business Risks experienced by this problem

### Category: Cross-Industry

***Business Activity Reporting***

<b>Company Background</b>	This cross-industry company must address the need to produce different reports for Key Performance Indicators (KPI) and Service-Level Agreements (SLA) to plan, understand, and optimize operational and financial performance.
<b>Business Problem/Description</b>	The reports/status information for numerous stakeholders is required in varying formats. However, data for creating reports is in disparate locations, and the data needs to be aggregated, filtered, and assembled in order to be more useful and generate value for the target audience.
<b>Actors</b>	Shareholders Operational Management Service Providers
<b>Business Requirements</b>	Need to generate management reports for shareholders using the same underlying data, but in a different format, as those used for operational management to report the business performance to shareholders – this can be a powerful way of driving efficiency and complying with exchange listing requirements. Need Service-Level Agreement/Operational-Level Agreement (SLA/OLA) reports for service providers so that various internal and external service providers can have their performance reports produced from disparate locations and organizational entities.
<b>Business Risks</b>	Inadequate governance due to lack of timely and inefficient reporting Lost customers if SLAs or OLAs not met Loss of transparency for stakeholders

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### Modernization

<b>Company Background</b>	This cross-industry company must address modernization of its business processes and legacy applications. However, they do not have the skills in-house to conduct such activities. Existing business services and assets are out-of-date and need modernization.
<b>Business Problem/Description</b>	Business needs to combat the problem of “legacy-ization” – it needs to change existing assets for new assets and skills rapidly. Business needs access to new technology quickly – the innovator’s dilemma ( <a href="#">Christensen 2006</a> ). Business does not have the skills in-house to transition via Cloud facilitation to modernize business processes.
<b>Actors</b>	Business Operations Controller Business Procurement Management Innovation Management Portfolio Management Data Center Management IT Operations Management
<b>Business Requirements</b>	Need to modernize infrastructure Need to modernize applications Need to modernize business processes Improve employee skills
<b>Business Risks</b>	Lost competitiveness Lost opportunities due to inability to support new business market Lost skills and resources retention Excessive investment spends on maintaining legacy applications Impact on existing contracts for support, licensing, and services

### Rapid Business Capacity & Scale

<b>Company Background</b>	This business needs to scale up its operations rapidly, including increased IT capacity – within a short cycle of days to a few months – to meet specific operating workloads.
<b>Business Problem/Description</b>	There is deficiency of resources and capacity to meet business activity demand to support day and night time peak loads. The company is facing issues such as how to balance compute workloads better; how to optimize costs of operations; and how to follow variable demands of service effectively and efficiently at lower cost.
<b>Actors</b>	Business Operations Controller Business Procurement Management IT Operations Management
<b>Business Requirements</b>	Remote user desktop services Infinite compute and storage capacity on-demand Access to temporary computing processing for business simulation and transaction processing Business process extensions; e.g., Business Process Outsourcing Access to rapid deployment of existing business process resources including applications and infrastructure
<b>Business Risks</b>	Lost revenue from lack of capacity Lost customers from under-performance of business delivery

### Operational Efficiency

<b>Company Background</b>	This company embarked on a strategic initiative to improve its management of development and test infrastructures.
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<b>Business Problem/Description</b>	Business requires better management of development and test infrastructure without increasing IT labor and set-up costs.
<b>Actors</b>	Application Development and Delivery Test and Quality Assurance Business Operations Controller Business Procurement Management IT Operations Management
<b>Business Requirements</b>	Provide management (e.g., automatically or self-service) for business activities that scale up and down operations with associated temporary capacity Provide governance structure and control to manage disparate activities for project-based resources
<b>Business Risks</b>	Opportunities for analysis missed Products and services are late to market Lost customers and market share due to failure to create ease of doing business Excessive complexity in business operations

### ***People Productivity, Workplace Collaboration***

<b>Company Background</b>	This company embarked on a strategic initiative to improve its internal and external communications.
<b>Business Problem/Description</b>	The company's workforce needs to communicate and collaborate more efficiently within the company and with its global network of customers, suppliers, and business partners.
<b>Actors</b>	Operations Management CIO CTO
<b>Business Requirements</b>	Remote user desktop services Improve the internal collaboration requirements (e.g., communication methods) for the business Improve the external collaboration requirements (e.g., customer meetings) for the business Improvements must be easy to implement Improvements must provide secure connections
<b>Business Risks</b>	Improvement implementations costly and time consuming Improvement connections not secure

### ***Development and Test Services***

<b>Company Background</b>	This company embarked on a strategic initiative to establish development and test environments for functionality and performance of applications so that businesses can achieve faster time-to-market for their products.
<b>Business Problem/Description</b>	The development and test environments need to be provisioned at short notice and then mothballed or redeployed elsewhere once the development or tests have been conducted. This represents a significant cost in effort and capital expenditures (CAPEX). Virtualization can be used to address this but there is often a demarcation along physical lines across business units, and so the take-up rate is not as large as it should be due to the localized nature of using virtualization.

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<b>Actors</b>	Development Teams Test Teams Product SMEs
<b>Business Requirements</b>	Development and test environments need to be provisioned at short notice. Development and test environments need to be mothballed or redeployed elsewhere once tests have been conducted. Time-to-market for products needs to be maintained or decreased.
<b>Business Risks</b>	Time-to-market increases CAPEX costs increase as individual projects or business units need to provision test environments that are segregated

### Category: Financial Services

#### *Business Transaction Assurance and Continuity*

<b>Company Background</b>	This financial services company is seeking rapid continuity services that assure business operations and associated transactions, particularly during mergers and acquisitions.
<b>Business Problem/Description</b>	This company lacks the necessary in-house skills and resources to support the high degree of sensitive assets and data that is required to support its key business processes. Business Transaction Assurance, Disaster Recovery Planning, and Testing of vital business processes for the same are required to comply with enterprise and regulatory guidelines.
<b>Actors</b>	Business Operations Controller Business Procurement Management IT Operations Management
<b>Business Requirements</b>	Provide necessary disaster and recovery backup processes Ensure that business activities can be carried out during times of additional complexity, such as mergers and acquisitions Access to rapid deployment of compatible and simple end user services through browser or end-user device
<b>Business Risks</b>	Current business operation is exposed to disaster and recovery backup processes either being insufficient or not in place Lost information contributing to poor business decisions Loss of business continuity across processes and new ventures Significant loss of assets or revenue flow

#### *Business Market Launch*

<b>Company Background</b>	This financial services company needs to rapidly introduce new products and/or services into a new or existing marketplace.
<b>Business Problem/Description</b>	There are insufficient resources and capacity for this company to rapidly respond to marketplace needs including seasonal events, although new entrant opportunities have been identified.
<b>Actors</b>	Marketing Management New Product Development Business Operations Controller Business Procurement Management IT Operations Management

## Strengthening your Business Case for Using Cloud

<b>Business Requirements</b>	<p>New products and/or services require new applications</p> <p>Rapid development and launch of new product and/or service specification</p> <p>Reliable and responsive service provision to support product and service launch</p> <p>Need more capacity for storage of information and to support service delivery</p>
<b>Business Risks</b>	<p>Lost opportunity cost</p> <p>Lost customers from under-performance of business delivery</p>

### Secure Business Assurance Services

<b>Company Background</b>	This financial services company is seeking transaction verification and hosting security assurance services.
<b>Business Problem/Description</b>	<p>Security assurance is paramount to business operations, yet there is increased concern over the external service provider's services. This business lacks internal skills and resources to develop security services.</p> <p>This business seeks to gain Cloud computing elasticity benefits but they are unable to support public service access due to security restrictions.</p> <p>Business legislation requires the company to use its own private secure services to control access to secure business services.</p>
<b>Actors</b>	<p>Business Operations Controller</p> <p>Business Procurement Management</p> <p>Security and Compliance</p> <p>Data Center Management</p> <p>IT Operations Management</p>
<b>Business Requirements</b>	<p>Private Cloud capability</p> <p>Access, authentication, repudiation</p> <p>Audit and eDiscovery compliance</p> <p>Securely partitioned and isolated</p> <p>Disaster recovery</p> <p>Web security authentication</p> <p>Business continuity</p>
<b>Business Risks</b>	<p>Security and compliance breach</p> <p>Lost business continuity</p> <p>Sovereignty compromise</p>

### Category: Government

#### Research

<b>Company Background</b>	This US Department of Energy research and engineering facility decided to replace the Cray XMP accessed via the Internet with a cluster of UNIX <sup>®</sup> servers. This decision was made both on the basis of cost (upgrade <i>versus</i> replace), and a goal of advancing clustering technology.
<b>Business Problem/Description</b>	<p>Researchers and their collaborators were demanding more compute capacity than was available on the existing Cray XMP. The business problem was to equitably allocate compute resources across a mixture of batch and interactive workloads, and to bill each project for the resources used. "Controlled anarchy" was the researchers' term for the acceptable level of systems management.</p>

## Strengthening your Business Case for Using Cloud

<b>Actors</b>	Business Operations Controller Business Procurement Management Mobile End User IT Operations Management
<b>Business Requirements</b>	Equitably allocate the compute resources across a mixture of batch and interactive workloads: <ul style="list-style-type: none"> <li>• Bill each project for their use of compute resources</li> </ul> From a functional standpoint: <ul style="list-style-type: none"> <li>• Support the then common programming languages to achieve minimum processing performance for typical high-performance computing workloads</li> <li>• Allow users to submit distributed workloads</li> </ul> From a non-functional standpoint: <ul style="list-style-type: none"> <li>• Optimize resource utilization</li> <li>• Keep each project's usage within its budget</li> <li>• Scale capacity quickly and cheaply</li> </ul>
<b>Business Risks</b>	Systems' management tools and programming models were not sufficiently mature to keep the IT costs within budget.

### Productivity

<b>Company Background</b>	This government agency wants to improve employee productivity and reduce end-user costs by leveraging mobile and social communities to improve the quality of business information and knowledge exchange.
<b>Business Problem/Description</b>	This entity must take advantage of lower-cost IT options including rapid delivery of productivity tools to its workforce. The organization contains many mobile workers who regularly need access to services; however, they are unable to invest in dedicated (in-house) mobile services and support. They are also experiencing huge desktop costs and support due to a large user base with many locations and disparate business operations.
<b>Actors</b>	Business Operations Controller Business Procurement Management Mobile End User IT Operations Management
<b>Business Requirements</b>	Business mobility services and support Business productivity requirements to improve community and knowledge development in the organization Reduce end-user costs/charge-back to customers
<b>Business Risks</b>	Inefficiencies in business productivity Technology incompatibility contributing to poor systems performance and downtimes Security issues introduced with remote workforce Dissatisfied customers

### Business Utility/Agility

<b>Company Background</b>	This government agency is prone to expanded operations, mergers, and/or acquisitions, and activities that are shrinking the capacity of its information technology (IT).
<b>Business Problem/Description</b>	Current business unit activity has opportunities to create common utility services to better support merger and acquisition activities.

## ***Strengthening your Business Case for Using Cloud***

<b>Actors</b>	Program Managers Business Operations Controller Business Procurement Management IT Operations Management
<b>Business Requirements</b>	Use commodity services to reduce operating costs Rationalize business assets through alternative sourcing of assets Use external transition services to assist consolidation and rationalization of merger and acquisition activity Need more elasticity – access to and rapid deployment of end-user services
<b>Business Risks</b>	Over and under-provisioned capacity Failure to leverage assets to better serve common business services across business agency units Complex asset dependencies remain unresolved Lost customers from underperforming business Excessive costs of infrastructure assets

### ***IT Cost Optimization***

<b>Company Background</b>	This agency is conducting activities that are affecting IT capacity. These activities may include operations' expansion, divestment, or significant mergers and/or acquisitions. The business needs to manage the cost of business operations and seek alternative ways to optimize investments.
<b>Business Problem/Description</b>	Current costs of IT are too expensive – in addition, productivity tools for the workforce are not delivered fast enough to keep up with market demands.
<b>Actors</b>	CTO, CIO, COO Business Operations Controller Business Procurement Management Order Fulfilment, including Storage System Administrators IT Delivery
<b>Business Requirements</b>	Current investments in business are high and need to be rationalized The business seeks supply cost reductions through alternative methods of service supply on common services Current business unit activity has opportunities to create common utility services to support merger and acquisition activities Accurate, consumption-based charges for services
<b>Business Risks</b>	Complex asset dependencies remain unresolved Excessive costs of infrastructure assets including storage Failure to leverage assets efficiently in order to provide common business services across business partners and enterprise domains

### ***End-User Cost Optimization***

<b>Company Background</b>	This business needs to facilitate delivery of new business services to users to improve productivity. It wants to reduce costs of services with rapid deployment of mobile and create better social community experiences to improve access and quality of business information along with improved knowledge exchange.
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## Strengthening your Business Case for Using Cloud

<b>Business Problem/Description</b>	Current business operation is looking to maximize low-cost IT options to reduce costs and rapidly deliver business productivity tools to its workforce. There are many mobile workers who regularly need access to services on-the-move, but lack the scale to invest in dedicated mobile services and support. In addition, there are huge costs in desktop and support due to a large user base, diverse locations, and disparate business operations.
<b>Actors</b>	CTO, CIO, COO Mobile Users Delivery Teams, including web and application hosting Business Partners
<b>Business Requirements</b>	Provide services and support on-demand to mobile workers Improve the community and knowledge development in the organization Need for large-scale investments in end-user services with high costs and complexity
<b>Business Risks</b>	Business productivity and efficiency decreases Business loses customers from under-performance of business delivery Security issues due to workforce working remotely Incompatible business processes due to IT technology insertion IT complexity increases due to additions to new business process capabilities

### **Business Growth, Development, Test, and Validation Support**

<b>Company Background</b>	This business unit has very elastic processes that require rapid test, validation, and quick solution deployments.
<b>Business Problem/Description</b>	The business has rapid introduction of new products and services with seasonal variation and on-demand needs for assets and resources, yet it faces budget constraints and shortages in IT capacity.
<b>Actors</b>	Business Operations Controller Business Procurement Management IT Operations Management Test Management Data Center Management Development Management
<b>Business Requirements</b>	On-demand test service On-demand business change validation Access to development and test services
<b>Business Risks</b>	Over budget on development and test activities Failure to deliver business products and services Lost customers and market share due to failure to deliver customer promises and needs

### **Category: Telco**

#### **Service Delivery**

<b>Company Background</b>	This business is seeking to move services to new markets and channels through network-based services, but managed network service enablement is currently not available.
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## Strengthening your Business Case for Using Cloud

<b>Business Problem/Description</b>	Current business is seeking online shopping and consumer services to sell products and services through mobile, cell, and other network-based services. The communications network is seen as a challenge for extending products and services to a wider range of customers and markets that access network-based channels.
<b>Actors</b>	Business Operations Controller Business Procurement Management Internet Service Provider (ISP)/Network Service Provider (NSP) Data Center Management IT Operations Management
<b>Business Requirements</b>	Development of self-service and consumer market services to support product delivery and development Transport as a service Network as a service Access to rapid deployment of compatible and simple end-user services through browser or end-user device
<b>Business Risks</b>	Lost market opportunities due to inefficient communications and delivery Network performance issues Lack of experience in managing network-based services

### Partner Collaboration

<b>Company Background</b>	This agency needs to facilitate collaboration with a range of partners and customers with no or limited IT resources or funding. There is a large marketplace of individual customers and participants all with common service needs to access business offerings.
<b>Business Problem/Description</b>	High manual workload tasks make each business transaction increasingly less cost-effective with increasing volumes. The business needs to offer common services to a large market that involve interaction of participants.
<b>Actors</b>	Business Procurement Data Warehouse Management Data Center Operations
<b>Business Requirements</b>	The business needs to manage the cost of business operations and seek alternative ways to offer common services Provide social collaboration tools and skills within the business to meet demand Information and services need sharing between participants' collaboration using a common collaboration process and tool set Control transaction costs
<b>Business Risks</b>	Transaction costs increase Collaboration is not efficient Customers' and participants' business is lost

### Category: Media & Entertainment

#### Test Assurance Services

<b>Company Background</b>	This company has rapid introduction of new products and services with seasonal variation on-demand for assets and resources, yet they are often constrained in capacity.
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<b>Business Problem/Description</b>	This company has many test and validation procedures to ensure business operations. Test assurance services of business processes need accessing to ensure validation and continuity of services and changes to services. The business introduces many new products and services – continually updating the business portfolio.
<b>Actors</b>	Media Outlets Online Shoppers Data Center Operations
<b>Business Requirements</b>	Business has very elastic processes that need rapid test and validation Business needs to improve costs of complex development and test overhead
<b>Business Risks</b>	Development and test budgets exceeded Business products, services, and delivery are constantly changing Delivery of business products and services fail Lost customers and market share due to failure to deliver customer needs

### Category: Health Services

#### Rapid Deployment

<b>Company Background</b>	This business needs to facilitate new business services to business users to improve productivity experience. It wants to reduce costs of services with rapid deployment to mobile devices. It wants to create social communities to improve access and quality of business information and knowledge exchange.
<b>Business Problem/Description</b>	Current costs of IT options too expensive and productivity tools for workforce not delivered fast enough.
<b>Actors</b>	Healthcare Providers Healthcare Administrators HealthCare Payor/Payee Patients IT Operations
<b>Business Requirements</b>	Operations looking to maximize low-cost IT options to reduce costs and rapidly deliver business productivity tools to its workforce Current business has many mobile workers who regularly need access to services on the move, but lack the scale to invest in dedicated mobile services and support Huge costs in desktop costs and support due to large user base with many locations and disparate business operations
<b>Business Risks</b>	Lost business productivity and efficiency Lost customers from under-performance of business delivery Security issues of workforce working remotely Risk of compatibility of IT technology insertion Increased complexity of IT with additions to new business process capabilities

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### Category: Pharmaceuticals

#### Rapid Business Process Extension

<b>Company Background</b>	This business needs to introduce a new business process. The solution can be an extension to the existing applications through use of rapid business process management or a sourced solution from a Cloud supplier or service source forge inventory. Need to rapidly access IT capability not available in current business operations. The solution seeks to source a business process function available from the open market.
<b>Business Problem/Description</b>	The company is currently operating in silos which are causing disconnection between how business and IT resources are shared and coordinated. This is negatively impacting manufacturing and other key business processes. Development and test resources appear to have a deficit in skills to support quality delivery of the new business process.
<b>Actors</b>	Business Operations Controller Business Procurement Management Market Sourcing and Procurement IT Operations Management End Users/Patients/Healthcare Administrators
<b>Business Requirements</b>	Business needs to introduce a workflow to connect different business processes and applications Business needs to introduce a workflow to connect different business applications to improve information quality flow Need to introduce a temporary project administration Need to introduce a temporary development and test environment to develop and deliver a new functional requirement Need to introduce quality management tracking and reporting of business processes cutting across a number of business areas and applications and database sources
<b>Business Risks</b>	Lost customers due to under-performance of business delivery Risk of compatibility of technology insertions Increased complexity of IT Poor quality products and services Increased complexity of IT with additions to new business process capabilities

### Category: Distribution

#### Brand Unification

<b>Company Background</b>	This retail distributor embarked on a strategic initiative to unify its brands worldwide under the company's name for competitive advantage, and to increase business results by "helping its multiple business units work together more efficiently".
<b>Business Problem/Description</b>	The company's workforce needs to communicate and collaborate more efficiently with its global network of customers, suppliers, and business partners in support of a strategic brand unification initiative.
<b>Actors</b>	Suppliers Line of Business (LoB) Leaders Distribution Centers

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<b>Business Requirements</b>	<p>Reduce total costs of ownership by:</p> <ul style="list-style-type: none"> <li>• Transforming the workforce into a globally integrated team</li> <li>• Looking to partners for solutions that may have better capabilities</li> <li>• Leveraging existing IT infrastructure without burdening IT resources</li> </ul> <p>Be innovative without compromising security, reliability, or privacy</p>
<b>Business Risks</b>	<p>Unmet business performance objectives          Poor partner selection and product service offerings          Delayed order fulfillment cycles          Inconsistent service offerings          Security, reliability, and privacy compromised</p>

### Innovation – New Ventures

<b>Company Background</b>	This distribution company is small to medium-sized with a broad and diverse customer base. This was a new, innovative undertaking.
<b>Business Problem/Description</b>	The company needed a business model that was responsive and flexible to diverse customer demands. Current processes were reported as co-location with personal management of purchasing, configuring, and ongoing maintenance of hardware, software, and operating systems. The process was time-consuming, costly, and appears labor-intensive. The company needed provisioning and de-provisioning of servers in minutes, instead of its current turnaround rate of days.
<b>Actors</b>	<p>Internet/Web Users          COO &amp; Operations Staff          Data Center Staff &amp; Management</p>
<b>Business Requirements</b>	<p>The company was challenged to scale their business in a cost-effective and timely manner in order to achieve customer satisfaction targets that optimized costs to the customer and the company as a whole.</p> <p>Two business performance indicators were to:</p> <ul style="list-style-type: none"> <li>• Provide spam filtering at a low price to consumers with little or no venture capital funding</li> <li>• Achieve 99% spam blocking rates with continued operations as a cost-effective company</li> </ul>
<b>Business Risks</b>	Data center requirements were reported as “in flux” and at risk in manageability and implementation. This caused concern regarding the company’s overall support capabilities of this new undertaking.

### Category: Energy & Utilities

#### Green Footprint

<b>Company Background</b>	Business needs to facilitate all options to improve green footprint emissions of its operations. Currently, business has expectations for rapid growth in IT services demand causing “drift” in its workloads and emissions from increased power consumption.
<b>Business Problem/Description</b>	Current business operation investments internally have reached limits in green cost reductions and are looking for other options and sources.
<b>Actors</b>	<p>Data Center Management and Operations          LoB Leaders          Sustainability SMEs</p>

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<b>Business Requirements</b>	The use of shared services to maximize utilization is exploring virtualization and other options for reducing the carbon footprint.
<b>Business Risks</b>	Lack of carbon reduction compliance Lost image in marketplace over green credentials Lost business due to inability to offer green services

**Category: Higher Education**

**Virtual Learning**

<b>Company Background</b>	Distance learning is an essential component of public community colleges that are engines for workforce development for local economy. In recent years, public community colleges are adversely affected by state budget cuts. These college campuses are looking for opportunities to cut cost without affecting delivery channels and student enrollment.
<b>Business Problem/Description</b>	Virtual learning environment is one of the common delivery methods in higher education. Each of the community colleges in a state maintains its own set of applications and infrastructure for virtual learning environment duplicating IT cost for each of the campuses and college systems.
<b>Actors</b>	Faculty Student Instructional Technology Specialists
<b>Business Requirements</b>	The use of shared environments by different community college campuses in a state for delivery of virtual education to certain population in the community as an alternative to classroom teaching.
<b>Business Risks</b>	Lack of insufficient state funding will lead to elimination of distant learning programs Shutting down a delivery method often times which is the only viable learning delivery method to a part of the population who are engines for the local workforce Loss of student enrollment to online schools that specialize and are pure players in distant learning and virtual education delivery

## Cloud Business Use-Case Analysis

### Business Impact Analysis

#### *The Impact of Cloud Computing on Business Risk*

As evidenced by the business use-cases, benefits of using Cloud include:

- Ability to move/abstract the service complexity off-premise to provide more efficient availability, resilience, and security patching
- Automated upgrades
- Access to expert resources and skills
- Rapid access and sourcing
- Ability to dynamically source and consume IT services (infrastructure, platforms, software, and business services) on a demand use basis – an instantly secure and managed service provisioning process

We divulge some common risks that have been mitigated via the use of Cloud services. Some examples are:

- Loss of product purchases and sales due to the inability to respond to customer demands.
- Costly implementations that are contributing to misaligned chargeback models; solutions may serve an immediate purpose but are neither re-usable nor sustainable for extended periods of time; solutions may not be considered at all.
- Excessive business and IT complexities are contributing to missed business opportunities, delays in service, and an inability to respond to mergers and acquisitions (this includes growth and process changes) with minimal business disruption.
- New categories of business services are emerging. Some examples are computing, network, storage, green, and overall business composition services. This emergence can present new risk and reward choices relative to asset ownership and capabilities.
- Lack of data center required capabilities to predict and resolve business challenges – this includes people, process, and technology.
- The need for effective management of an organization's service capabilities due to a mix of physical and virtual teams and resources.

At the same time, Cloud computing introduces some business risks that should be considered:

- The elasticity of Cloud services can contribute to performance issues as the boundary of elasticity changes with demand fluctuations. While performance responsibilities expand, the overall service performance levels are expected to remain consistent.
- Can the Cloud computing environment support the compliance standards and security requirements specific to the market industry certification standards?
- How do Cloud computing providers ensure the right level of service level management that enterprise consumers expect?

## Strengthening your Business Case for Using Cloud

- The role of aggregators, integrators, and brokers of services becomes a significant area of both differentiation and transition as the use of Cloud computing moves the boundaries of service from internal to external opportunities.

### Service Considerations and Benefits

Traditional business thinking saw a choice between differentiating services or products through specialist or premium services on the one hand, and excelling in low-cost and competitive pricing through operational excellence on the other. However, combining both objectives is becoming more prevalent as companies compete or multi-source in niche and large markets through online channels.

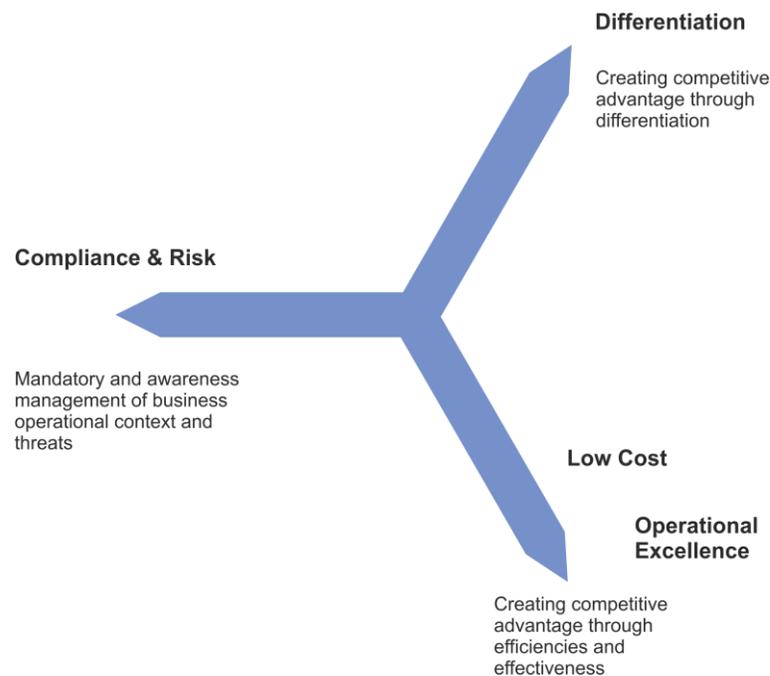


Figure 1: Multiplicity of Business Objectives

Popular publications – including Wikinomics, The Long Tail, The World is Flat, and The Big Switch (see [References](#)) – all point towards the possibilities of new business models for companies where Cloud computing is a major part of a shift towards this style of thinking.

These objectives need to be balanced with a third fundamental business force: legal and environmental compliance. The divergence of these business goals through these new business models mean that the mandatory compliance issues and the awareness of strategic and operational threat risks must be considered.

Service cataloging is another important aspect of using Cloud as new public, hybrid, and private Cloud platforms create online channels for IT services provisioned from a “menu” style service offering.

Reliable cost allocation and charging models are benefits of using Cloud. This impacts the business as new virtual methods of pricing and billing change the way categories of services are allocated and managed across the enterprise. The use of policies to set individual and business-level financial budgets and approval processes is also impacted by Cloud options.

Certification and accreditation of providers in the areas of green and other categories is becoming increasingly important as primary criteria for vendor selection.

## ***Strengthening your Business Case for Using Cloud***

New procurement categories of IT services such as networks, storage, and compute services continue to evolve in support of dynamic business and IT models.

Service management is extending to support Cloud solutions and provide end-to-end views of a logical unit of work unbeknown to the service providers.

### **Business Value Analysis**

In this White Paper, we have explored many different use-cases for Cloud computing from several industries. Although some use-cases are industry-specific, there are still common themes of business value which emerge throughout the use-cases. Business leaders across industries will recognize some or all of these themes as key business value drivers required to optimize their business performance. The following is a summary of the key business value themes which emerge through a study of the use-cases.

One of the first business values which emerges from the use-cases is the ability to consolidate information across disparate systems with complete transparency to the user. When information is stored in the Cloud, the user does not need to know where the information is stored, whether in one Cloud server location or more. Through leveraging Cloud services, the user only needs to be concerned with creating report views, for example, regardless of where this information may be stored.

Another business value which surfaces in the use-cases, especially for businesses on a limited budget, is the ability to modernize their business systems at a low-cost and fast speed of deployment. With Cloud computing, new and innovative services can be deployed at a low cost given the elimination of typical CAPEX or OPEX spending required for new solutions. Instead of large upfront investments in hardware and software, business leaders engage with service providers to “rent” *versus* “buy” these new innovative services and solutions. This significantly reduces the cost of entry for new solutions and allows businesses to innovate quickly.

For businesses with a wide distribution of users accessing common desktop applications and services, business leaders immediately realize business value by moving to a remote desktop services model using the Cloud. As opposed to deploying hundreds or maybe thousands of applications across all desktops or laptops throughout the company, leading to high application license costs and requiring significant maintenance over time, enterprise employees can instead access desktop applications via Cloud services. With this model, users access applications when and where needed, then release the application license back to the Cloud so that other users in the company can share a common pool of licenses.

Another pain-point for many businesses is the need to support very high storage capacity requirements which can ebb and flow in size requirement throughout any given month or year. By leveraging storage capacity via the Cloud, businesses use and pay for only the storage capacity they need, when they need it, on demand. This model lowers CAPEX spending significantly by reducing the upfront server investment and ongoing maintenance costs while still maintaining the ability for infinite storage capacity.

Speed of deployment of new business solutions is the key to quickly driving return on investment for any business, yet deployment of new functionality can often be a bottleneck for businesses. In the use-cases, rapid deployment emerges as a consistent business value theme. With Cloud services, new solutions are accessed via the Cloud by end users, lowering time and cost to deploy solutions across many physical locations. Also, with this central control of IT, business value is driven by the ability to centrally manage user access for security purposes, perform IT maintenance, and address any IT problems.

Another consistent business value driver throughout the use-cases is the ability to provide IT using self-service capabilities. Take, for example, the business which requires a high level of development and test

## ***Strengthening your Business Case for Using Cloud***

activity. In the new Cloud model, development employees can self-provision a very specific hardware and software environment for their testing purposes without requiring additional assistance from hardware and software support personnel. Instead, the developer accesses the Cloud, specifies the virtual hardware and software environment to be used for the test, runs the test, and then releases the virtual resources back to the Cloud for another future user of these assets. Because the developer can self-provision this environment, there are significant savings realized in labor cost and time.

In many of the use-cases, we see mobile services emerge as a common theme. Many solutions in enterprises are “going mobile”, whether supporting mobile employees or services to customers via mobile devices. With mobility services accessed and delivered via the Cloud, support for mobile users is transparent and available on-demand at lower costs to the enterprise.

To effectively drive business value across the corporation, it is imperative to support internal and external collaboration for employees and partners. To minimize cost while driving collaboration, many of the use-cases in this paper take advantage of collaboration via the Cloud to share documents and support meetings online to reduce travel costs. Any business leader will recognize the business value of lowering costs while at the same time nurturing a collaborative environment between employees, partners, and customers.

In summary, these use-cases demonstrate business value through optimizing resources, lowering costs, and providing solutions on-demand when and where your customers, partners, and employees need it. The ability to drive innovation while at the same time lower costs is a true business benefit to any enterprise.

### **Cloud Influencers and Business Trends**

*“Today, CEOs are telling us that the complexity of operating in an increasingly volatile and uncertain world is their primary challenge. And, a surprising number of them told us that they feel ill-equipped to succeed in this drastically different world.”*

[Source: [Capitalizing on Complexity: Insights from the 2010 IBM Global CEO Study](#)]

Considering the CEO Study data as well as the various business use-cases, it is expected that Cloud adoption will increase in an effort to drive business agility and equip stakeholders for continued success in a dynamic, volatile, and uncertain world. All indicators point towards the evolution of a richer set of Cloud business use-cases that center on business performance and optimization.

Key influencers of Cloud adoption are:

- **Build Operating Dexterity** – CEOs are revamping their operations to stay ready to act when opportunities or challenges arise. They simplify and sometimes mask complexity that is within their control and help customers do the same. Flexible cost structures and partnering capabilities allow them to rapidly scale up or down.
- **Finding New Categories for Growth** – As CEOs turn their attention to growth, the CEO Study reported that many feel that their success depends on doubling their revenue from new sources over the next five years.
- **Re-invent Customer Relationships** – Globalization combined with dramatic increases in the availability of information, has exponentially expanded customers’ options. CEOs consider the information explosion to be their greatest opportunity in developing deep customer insights.
- **Creative Leadership** – Creative leaders invite disruptive innovation, encourage others to drop outdated approaches, and take balanced risks.

### **Conclusion**

This paper was written from a buyer's perspective – focusing on the business problems and addressing the interests of those pursuing Cloud investments. The use-cases identify key business problems, requirements, and risks that can influence activities such as responses to RFPs, and help to formulate a buyer's decision considerations. They also influence sellers of Cloud services by identifying key business requirements and usage considerations that will ultimately get transformed into IT capabilities.

Throughout we have provided practical knowledge on how to remain competitive and integrate Cloud as a part of your business solution decision-making. We provide real-life business use-cases and analysis to assist you with your overall planning and business case development. To strengthen development of your business case, we specifically provide information and guidance in the following areas:

- Provide real-world success stories where companies have applied Cloud to solve specific business challenges
- Identify specific business risks that clients are facing where Cloud has contributed as a mitigation factor
- Provide and discuss some common business requirements that companies have expressed as fitting for the Cloud
- Provide insights into business complexities (such as complex cost structures) that companies are facing and where using the Cloud respectively makes sense

In Business Impact Analysis, we analyzed the use-cases for their business impact, highlighting how Cloud computing is a strong part of the new business models. This analysis describes compliance and risk that should be considered when determining utilization of the Cloud in your business. It further describes how business competes by offering differentiated services and products. And with the maturing of Cloud computing, other considerations besides costs – such as vendor credibility, industry certifications, security, and business performance – are more prevalent in driving the acquisition of Cloud services. Cloud influencers and business trends are highlighted to not only validate the enclosed use-cases, but the section also provides insights into CEOs around the globe, their top business challenges, and the relevancy of Cloud as a viable business solution.

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