Making the Business Case for Cloud
How to evaluate, quantify, and promote your enterprise cloud strategy

A WHITE PAPER
BY CLOUD CRUISER
Making the Business Case for Cloud

Businesses across all verticals are increasingly migrating to the cloud to take advantage of greater functionality, cost savings and flexibility, among other factors. In fact, Gartner projects the global cloud computing market could reach $180 billion by 2015, a substantial 37 percent increase from $131 billion in 2013.

But companies can’t simply decide on a whim to migrate to the cloud and expect to get the most out of that decision. Rather, they need to forge comprehensive cloud migration strategies, detailing exactly which functions will be best suited for the cloud; what they plan to accomplish with the technology; and what kinds of cost savings they intend to realize.

This paper explores the process of developing a business case for cloud adoption and provides practical steps for evaluating, describing, and quantifying the benefits, risks, costs and savings associated with moving IT services to the cloud.
Before assembling your business case, you should have already identified the IT services that are candidates for cloud migration. This process for selecting those services is covered in great detail in the Cloud Cruiser white paper, How to Formulate Your Cloud Strategy, and is a pre-requisite to this paper.

In brief, identifying candidate cloud services and building the business case entails the following 4 steps:

1. **Assess** the IT resources and services that could conceivably be migrated. Figure out what trends you are seeing in terms of the use of those resources and services.

2. **Distill** that list of resources and services. It’s likely there are some mission-critical resources and services you’d like to keep on-premises no matter what. Other applications might have a lot of dependencies that would require major effort to transition to the cloud.

3. **Compare** the logistics and finances of what it would look like if certain functions were shifted to the cloud versus kept on-premises. You might find that some services are a natural fit for a cloud-based delivery model while others are not.

4. **Formulate** your complete business case for migration. You’ll be able to produce a report that leaves no stones left unturned and present reasons, supported by fact, as to why certain functions and services should be moved to the cloud.

While migrating resources and services is likely in your organization’s future, such a plan will only be effective if you do the necessary legwork. In the pages that follow, we’ll take a deep dive into what you can do to ensure that you’re able to craft the strongest business case possible for cloud migration.
Understanding the Rewards and Risks

To gain the most out of cloud computing, it’s imperative to ask yourself what business problems you are trying to solve—such as increasing cost savings, scalability or accessibility—prior to migration. Money makes the world go round, and from an economic standpoint, the more comprehensive the case you put together, the more apparent the need for migration.

As you begin to assemble your business case, identify the benefits you expect to receive after deployment. Let’s take a look at some of the most documented benefits to see if they would apply to your specific case.
Innovation

Cloud computing helps businesses accelerate time-to-market. Rather than using time otherwise spent buying, installing and configuring hardware and software to build a proof-of-concept, for example, virtual resources can be quickly provisioned and work can begin immediately.

Accessibility

With cloud-based solutions, employees can access applications from any Internet-connected device. Such functionality creates an environment conducive to collaboration.

Productivity

A key area where cloud computing differs from virtualization is in automation. When leveraging the cloud, developers don’t have to call IT operations in order to get additional capacity to develop or test. Instead, they simply use a self-service catalog to request that capacity and it’s immediately available.

Agility

The cloud gives businesses flexibility, allowing them to change direction quickly with less effort and expense than traditional computing infrastructure. Businesses can enter a market quickly rather than having to build their own footprint while they expand.

Scalability

Thanks to the cloud, businesses are able to provision resources as needed while only paying for what they use. For example, a business owner who is keen on rapidly expanding his or her company will want the ability to add lots of seats to the computing environment as quickly as that growth occurs—but not a moment sooner. Prior to cloud adoption, the same business would either have unused capacity most of the time or wouldn’t be able to accommodate lots of new users anywhere near as fast.

Profitability

A majority of business owners make decisions based upon how they translate financially. And that’s why they turn to the cloud. Maximizing profitability is a core component of many migrations. The cloud helps businesses lower costs by realizing additional economies of scale, lower licensing costs and only paying for the resources they need. By performing financial analytics and understanding costs and revenues for individual services and business units, providers are able to focus on selling higher-profit services and upselling to lower-profit clients.
But there are two sides to every coin. While businesses need to understand the benefits of a cloud deployment, they should also be wary of the risks that could materialize, as well as the costs associated with them.

As is the case with any new technology, businesses still need to get their staff up to speed with how to use it correctly. Depending on their acumen, that could take valuable time. Additionally, there will be costs and time associated with a cloud migration as members of your IT staff work to make sure everything is properly configured. Automation is crucial when it comes to delivering a successful cloud. If you don’t have thoroughly documented processes, automation will be difficult. Businesses need to make sure those processes are documented or consider adopting processes inherent in a cloud management platform.

Moreover, migrating to the cloud can bring about security, compliance and reliability challenges. These issues, generally speaking, can be avoided by choosing the right kind of deployment. For example, a group of like-minded companies in the healthcare industry might choose a community cloud environment where resources are shared so as to realize economies of scale while ensuring compliance with the same regulations. Additionally, companies might choose to deploy private clouds to ensure their infrastructure and data are secure.

Another consideration of migration surrounds financials. Moving forward with a cloud deployment without understanding the financial impact is a recipe for failure. In fact, analysts have pointed out that delivering self-service to users without the pertinent financial information results in higher costs. Businesses need to price their services accurately, and thorough forecasting and budgeting ensures that costs are kept in line. When it comes to the cloud, cost transparency is critical as decision makers can see at a glance the total costs for the choices they make - public or private cloud, for example. By performing a thorough analysis, businesses are able to make informed decisions that will almost certainly lower costs.

Once you’ve figured out what problems you’re setting out to solve by migrating to the cloud—and considered potential risks you might incur—you’re ready to get down to business and figure out exactly where you stand to save money. It’s time to examine how you can drive the most economic value in the cloud deployment of your choosing.
Businesses that leverage cloud computing solutions will notice the immediate benefits of subscription models, as they avoid the cost impact associated with over-provisioning or under-provisioning resources. But there are actually a variety of other ways businesses stand to benefit financially from migrating to the cloud.

Let's take a look at some key areas where enterprises can drive additional savings:

**Matching IT services to demand.**

Matching supply with demand for IT services requires granular insight into historical consumption so that decision makers can make informed decisions about their provisioning needs in the cloud. It’s also critical to understand precisely how those services are being used, for example, whether there are seasonal usage patterns. One could imagine, for instance, that businesses that perform tax preparation need additional resources in March and April. Additionally, decision makers should consider whether different departments or offices are utilizing different amounts of resources and whether demand for resources is increasing or decreasing. As the popularity of cloud computing increases, so too does the number of providers offering services. By understanding exactly how your required resources are being used, you’re able to effectively match the type of service you need with specific business requirements. While understanding usage trends enables you to identify the best cloud deployment for your business, forecasting those trends allows you to shop for price more effectively.

**Leveraging lower-cost services.**

The more familiar you are with how your business consumes cloud resources, the better position you’re in to take advantage of lower-cost services. If you’re a retailer who expects a surge in traffic around graduation season and the holidays, for example, it may make sense to acquire reserved instances from a public cloud provider so you can absorb that influx of traffic with ease. By constructing hypothetical scenarios where you predict the need for more resources, you’re able to compare costs across vendors and identify the better match.

**Controlling costs and imposing fiscal responsibility.**

Shadow IT, or the procurement of IT solutions without a business signing off on them, can account for as much as 20 percent of overall IT spending at any given organization. As employees increasingly acquire IT resources from external providers rather than going through their own internal IT departments, businesses have to be concerned with security and compliance. With this in mind, decision makers must control costs in self-service cloud environments—one of the biggest worries of enterprises. One way to do that is by putting public cloud spend solely under the purview of IT, enabling budgets and cost controls to be put into place. That way, departments don’t have free reign when it comes to determining which IT resources they use. Additionally, showback and chargeback should be used to provide cost transparency and drive accountability.
Driving the Economic Value

Continually optimizing for the lowest cost.
As cloud computing becomes exceedingly pervasive, many providers are flocking onto the scene and battling on price. Just as your business needs change, so too do the rates providers charge for their services. The more visibility you have into your IT costs, the better ability you have to forecast what impact resource changes will have on your business and the affect those resources will have on your bottom line. By using a financial analytics tool that lets you slice and dice your IT usage and spending in ways that make sense to your specific business, you’re able to easily identify which IT services make sense.

Making financial intelligence consumable and accessible.
The more information you have at your disposal, the better equipped you are to make those informed decisions. In this light, automated access to IT usage, cost and revenue metrics is another key driver of the economic value in your cloud migration strategy. Because cloud computing is usage-based, decision makers can access more granular data about how their organization is using IT, allowing them to make critical business decisions and adjust operations accordingly.

Making usage and cost reporting accessible via self-service portals is another key value-add service that helps decision makers in the enterprise make better financial decisions that drive greater profitability.

Align IT to lines of business
IT is traditionally synonymous with long lead times and high costs. The standardization and easy availability of cloud now makes satisfying the IT needs of the business much faster. This enables IT to focus less on provisioning resources and updating software and more on providing critical value-added services to the lines of business, creating a greater partnership between IT and the businesses they service.
Although moving to the cloud isn’t solely about saving money, businesses must look at their bottom line when adjusting their operations. In other words, the almighty dollar matters, particularly in today’s challenging economic climate. Let’s take a look at some of the financial considerations for devising your cloud adoption business case.

Right off the bat, it’s likely you’ll see savings in obvious areas, as represented in Figure 2. When it comes to hardware, you can save on physical servers, storage and maintenance fees. Cloud computing also ensures your assets are used more efficiently. On the application front, getting software delivered through the cloud reduces the cost of software licenses, security and antivirus software as well. There will also be savings associated with your data center—reduced electricity, reduced cooling expenses and a smaller footprint—as well as lessened labor costs because the cloud provider is administering the infrastructure and software instead of your internal team.

<table>
<thead>
<tr>
<th>POTENTIAL SAVINGS</th>
<th>POTENTIAL COSTS</th>
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<tr>
<td>Hardware - physical servers, storage</td>
<td>Networking - additional bandwidth</td>
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<tr>
<td></td>
<td>- administration</td>
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<tr>
<td>- hardware maintenance fees</td>
<td>Apps - porting, integration, testing</td>
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<td>- sourcing options (public/private)</td>
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<tr>
<td>- better asset utilization</td>
<td>Data - migration and testing</td>
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<td></td>
<td>- security</td>
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<tr>
<td>Apps</td>
<td>Labor - retraining of personnel</td>
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<tr>
<td>- software licenses</td>
<td>Vendors - relationship management</td>
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<tr>
<td>- sourcing options (public/private)</td>
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<td>Facilities - smaller footprint</td>
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<td>- reduced power</td>
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<td>- reduced HVAC</td>
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<tr>
<td>Labor - IT administrators</td>
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Figure 2: An overview of potential savings and costs to consider when migrating to the cloud.

Your IT team is great at analyzing technology choices and presenting solutions. But sometimes, it might not be so great at showing the business value those solutions will deliver. There are cost reductions associated with the six areas your company stands to benefit from post-deployment that we touched upon earlier. These savings aren’t as easy to quantify, but they’re very important nonetheless.

In the next section, we’ll explore some examples of savings that may be byproducts of more obvious and measurable benefits. Every company is unique so it is important to engage members from multiple business units when evaluating potential ‘soft savings.’
Potential Savings

- **Innovation.** Can you put a price tag on how much your business stands to gain from getting a product into the market earlier? If you forecast your product will bring in $100,000 each month, for example, releasing it six weeks earlier will help you generate $150,000 more in revenue. Multiply that by however many products you intend to release and you start to see the potential for substantial revenue gains.

- **Accessibility.** Because employees can access collaborative applications from any Internet-connected device, they’re able to complete tasks anywhere. When dealing with a global workforce or global customer base, such access becomes measurably more important. Information is available immediately for staff in all locations, facilitating decisions and work processes.

- **Productivity.** By making use of fewer platforms, businesses save on IT costs as technicians become experts on the technology you use. That means problems are resolved faster, and because your systems are online more, your business unit workers are able to take advantage of the tools needed to do their jobs. Because cloud technology is kept current, technicians consistently develop modern skills and are less likely to get frustrated and seek employment elsewhere. Less employee turnover results in savings on the expenses associated with hiring and training new employees.

- **Agility.** With the ability to adapt and respond to customer needs more quickly, businesses can expect to improve customer relationships. The happier your customers are, the more likely they are to remain a customer. Because the costs associated with onboarding new customers are substantially higher than the cost of retaining existing customers, businesses stand to benefit measurably from the agility found in the cloud.

- **Scalability.** Companies only pay for what they need in the cloud and therefore benefit from not building excess capacity. Furthermore, on-demand, automated provisioning of computing resources helps eliminate the costs associated with setting up hardware, installing software, and defining connectivity. In hybrid cloud environments, businesses are able to leverage public cloud resources during traffic bursts rather than relying on fully private infrastructure.

- **Profitability.** No matter which study you read, the average costs of downtime in your data center are staggering. According to recent research by the Ponemon Institute, businesses stand to lose as much as $7,900 per minute of unplanned downtime. What’s more, 91 percent of datacenters surveyed reported that they experienced such downtime unexpectedly within the last two years. With the cloud, your systems remain online and you are protected from incurring those costs.
Potential Costs

Some of those savings, of course, will be offset by new costs as noted in Figure 2. With the need for additional bandwidth, networking costs will rise. You'll also need to devote administrative costs to managing invoices from your providers if a public or hybrid cloud option is selected. Prior to deployment, you'll incur one-time costs of standardization, data validation, archiving and testing. But cloud migration presents unique opportunities to focus on areas that have been neglected of late, such as data clean-up.

Cloud migration presents unique opportunities to focus on areas that have been neglected.

Additionally, there will be expenses surrounding the retraining of personnel using the technology, as well as your technical staff who are charged with monitoring. You'll need to direct fewer IT resources on that technical support but you'll also need someone who will serve as a liaison between your company and your vendor partners.
You’ve estimated what implementation costs you can expect to incur and what savings you can expect to realize. Now you need to forecast production demand, as it’s the foundation of your business case. You need to understand demand to justify capacity added for a private cloud as well as to predict how much to procure from a public cloud provider. To do this, look not only at current usage and costs, but also how the usage and costs will fluctuate as demand grows. This will help project both costs and benefits over the long term.

Forecasting demand over a three- to five-year horizon is important when assessing the financial impact of an initiative. The traditional range of five years was tied to the lifecycle or depreciation schedule for hardware. In today’s IT world, though, three years is about as far as the crystal ball will see, as there are too many variables and emerging technologies. Accessing comprehensive usage history to determine precisely who is using what, and what the patterns of usage are, will fortify your business case.

As a reminder, the cloud represents a shift from CAPEX to OPEX. In the past, provisioning too many resources resulted in wasted money. Provisioning too few resources meant services were delayed while you went through the procurement cycle and stood up the additional environments needed. Still, because the depreciation amount did not change until you bought something new, the annual cost impact was somewhat muted. In the world of public and hybrid clouds, you need to get funding built into your annual budget to cover a cash outlay. It is imperative that you base your forecasting on solid historical usage information.

Figure 3: Sample forecasting reports that can be used to predict IT resource demand - a critical component of the Cloud Adoption Business Case.
Armed with all the cost analysis work you have done to the point, it’s now time to calculate your ROI. Figuring that out is easy: Simply add up all of the revenue you expect to generate, add the cost savings you expect to experience and subtract the costs you expect to incur. If you are considering more than one solution, you will need to prepare your ROI for each to be able to select the best plan.

<table>
<thead>
<tr>
<th>Three Year Return Calculations</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Total</th>
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<tbody>
<tr>
<td>Revenue</td>
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<td>Cost Savings</td>
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<tr>
<td>Implementation Costs</td>
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<tr>
<td>Net Financial Impact</td>
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<td>IRR (3-year)</td>
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Figure 4: An example of a simple ROI spreadsheet.

With so many different providers and workloads to be considered, the process of modeling the financial impact of different cloud deployments can become overwhelming. To avoid that stress, center on workloads that seem to offer the best opportunities—don’t get stuck in a sea of never-ending analysis. Make an apples-to-apples comparison so you evaluate costs for all kinds of environment. And lastly, understand your tolerance for risk, as protecting your data should remain integral to your mission.
Because of the wealth of benefits cloud computing offers, it’s likely your business will move resources there, if it hasn’t already. Still, despite the technology’s pervasiveness, a strong, cohesive plan must be presented before decision makers sign off on such transformative initiatives. Simply saying there will be cost savings isn’t enough. Rather, after conducting a thorough financial analysis, you need to clearly prove those savings will come to fruition, while also identifying why your business needs to modernize its infrastructure.

With increased innovation, accessibility, productivity, agility, scalability and profitability, cloud computing should be attractive to businesses across all verticals. But every company has its own unique needs. By understanding those needs and how cloud adoption can meet them—while predicting how such an adoption will benefit your business financially—a strong business case for a move to the cloud can be made. And after presenting that case to those in charge, it’s all but guaranteed they will give cloud migration the green light.
About Cloud Cruiser

The Company

Founded in 2010 and headquartered in Silicon Valley, California, Cloud Cruiser offers an innovative cloud financial management solution that was built from the ground up to support the cloud economy. It maximizes freedom of choice for enterprises and service providers by providing dynamic financial intelligence, chargeback, and billing across heterogeneous IT environments and at all stages of the cloud adoption lifecycle.

The company’s key strategic partners include: Microsoft, HP, Cisco, VMware, Amazon, Openstack, and Rackspace.

The Solution

Cloud Cruiser gives you an end-to-end view of your organization’s IT usage and costs across public, private, and hybrid clouds, as well as traditional IT environments.

The product transforms and enriches your IT data to enable enterprises and service providers to perform the following high-value business use cases:

- showback/chargeback/multi-tenant billing
- service analysis
- consumer analysis
- profit maximization
- demand forecasting
- rate modeling
- what-if analysis

Click here to schedule a live demonstration!