

calculating the ROI of your cloud migration

an eBook to measure
and master your
cloud investment.

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You want to calculate the ROI of your proposed cloud migration. Yet while the generic Return on Investment (ROI) formula of return over costs appears relatively simple, it's surprisingly hard to apply the equation to a cloud adoption project.

Not only are cloud migrations inherently complex, but to build a true picture of the value of cloud adoption, you need to factor into your calculation a host of benefits that accrue from the cloud that are not typically measured in dollar terms.

This paper explains how to identify and incorporate the intangible benefits of cloud as part of your overall cloud ROI or TCO assessment.

the generic ROI equation

ROI is usually expressed as a percentage of gain from an investment over the cost of the investment. The simplest definition is:

$$ROI = \frac{(Gain\ from\ investment - Cost\ of\ Investment)}{Cost\ of\ Investment} \times 100$$

For example, if you expect to invest \$2,500 in cloud services and support for year 1, and you project earnings (cost savings and new revenue) of \$10,000 after that first year as a result of your investment, your projected ROI is 300 percent, calculated as follows:

$$ROI = \frac{\$10,000 - \$2,500}{\$2,500} \times 100 = 300\%$$

A positive ROI indicates your projected gains compare favorably to your projected investment costs – in this case, a 300% gain. Note, ROI includes the notion of a predicted gain over a period of time, meaning the figure could be related to 1-year, 5-year or any notional time period used for comparison.

the cloud ROI equation



focuses on value

When assessing ROI for a cloud migration, the calculation is slightly different in that gain is considered as Value in the equation. The adjusted formula commonly used is:

$$ROI = \frac{Final\ Cloud\ Value\ of\ Investment - Initial\ Value\ of\ Investment}{Cost\ of\ Investment} \times 100$$

Here, we substitute the upper right “Cost of Investment” metric from the generic calculation with an “Initial Value of Investment” metric. The formula considers the initial value an implementation, and you end up with a value-focused ROI calculation, where you assess the Cloud Value gained from a monetary invested amount (cost of investment).



$$ROI = \frac{\text{Final Cloud Value of Investment} - \text{Initial Value of Investment}}{\text{Cost of Investment}} \times 100$$

the ROI nominator: cloud value of investment

What exactly do we mean by Cloud Value? This critical metric can be broken down into a few categories: agility, productivity, quality, reduced costs and employee retention.

Any improvements in these will have a lasting impact on your organization.

These categories provide organizations a great deal of value, only some of which is monetary. Agility, productivity and quality are all inherently qualitative categories, which makes it difficult for decision-makers to translate them into numeric terms.



1. Agility.

Agility is the ability to rapidly adapt and provide cost efficiency in response to changes in the business environment. Cloud computing allows companies to significantly decrease the time it takes to provision and deprovision IT infrastructure. This speeds delivery of IT projects that are critical to revenue growth or cost reduction.



2. Productivity.

The cloud provides a more productive environment for collaborative working. The flexible infrastructure that can be accessed from any browser translates into businesses enhancing their productivity, rather than inhibiting change.



3. Quality.

The cloud can improve service and product quality through customization and enhanced user relevance. Cloud provides the opportunity to automate deployments and rollbacks. You can ship and test features faster – up to many times per day. This is especially important, since it creates an environment for continuous improvement, improving your product and your customers' experience.



4. Reduced costs.

Cloud computing can reduce the application portfolio's total cost of ownership. This is realized through many measures such as reducing licensing costs, elasticity, open-source adoption and Service-Oriented Architecture (SOA) reuse adoption. Thanks to economies of scale, cloud providers can provide better up-to-date resources for less money than most in-house implementations.



5. Workforce productivity.

Cloud-native implementations provide the opportunity for your IT team to shift focus from support tasks to innovation, while breaking down communication barriers between silos. A successful movement to this kind of culture makes for happy employees who are engaged in work they want to do, and greatly increases employee retention.

the ROI nominator: cloud value of investment

So how do you put a figure, for example, on the value of increased agility from automating deployments into the cloud?

The answer is that decision making should be based on a mix of cost or ROI calculations, together with deep knowledge of all the intangible benefits you stand to gain with the cloud.

To acquire this deep knowledge, you must first identify the intangible values that are most important for your company - be they website clicks, cost-savings or any other key performance indicator (KPI) - . assess their value and factor them into your business case.

The simple ROI figures should be delivered in the context of an ROI report that also lists all the intangibles your company hopes to achieve with cloud: CI/CD automation, faster feature delivery, innovation gains and so on.

This is a list of all the reasons your engineering and business teams see for moving to the cloud.

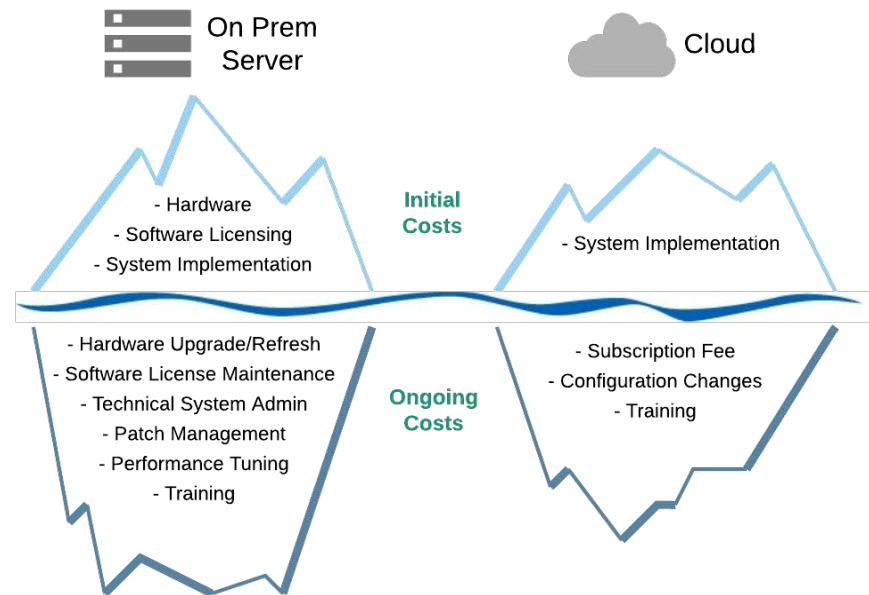
$$ROI = \frac{\text{Final Cloud Value of Investment} - \text{Initial Value of Investment}}{\text{Cost of Investment}} \times 100$$

the ROI denominator: cloud cost of investment

Now that we've discussed the value in the ROI nominator, let's address the denominator in this formula – costs of investment – by calculating costs throughout the cloud migration.

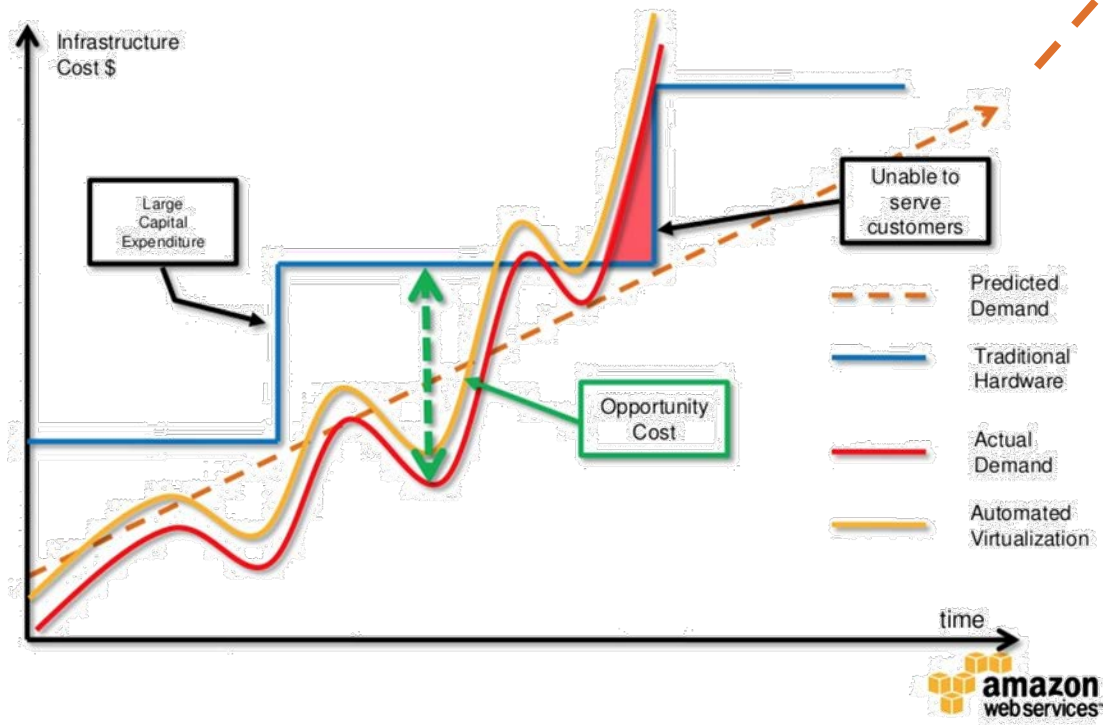
Adopting cloud moves you away from the hardware-related costs of managing rooms of servers, toward a pay-per-use model with ongoing subscription fees. This diagram illustrates some of the initial and ongoing (often more hidden) costs related to this transition.

As you can see, the bulk of ongoing costs for the cloud are subscription fees, configuration changes and training or new hiring. In the context of assessing cloud migrations, many companies use the concept of Total Cost of Ownership (TCO) for comparing cloud solutions to the current state. Most cloud providers have built-in TCO calculators for forecasting future/proposed cloud implementation costs.



For your current on-prem implementation, these cost figures should be available via IT audits. The TCO cost calculation should be performed for each phase of ownership: acquisition, operation, documentation & training, and retirement.

gaining exponential value from the cloud



Having covered the basics of your ROI calculation, let's now look at some examples of how features of cloud can multiply their value and impact the organization's abilities to reach business goals, way beyond the technical benefits they deliver.

One benefit of cloud is elasticity. The diagram on the right illustrates a comparison of demand for traditional IT resources versus cloud-based resources.

Traditional on-prem infrastructure requires provisioning of resources for your estimated peak demand scenario. This inevitably results in underutilized resources and large periodical capital expenditures (represented as the blue stair-stepping line). These transactions are all also accompanied by maintenance and support overhead.

Cloud services (represented by the yellow line) grow according to demand, whereby necessary resources are provided at the right time, in alignment with your enterprise's demand, thereby minimizing downtime.

gaining exponential value from cloud

The benefits of elasticity, however, expand well beyond the tangible, measurable benefits. For example, removing the burden of managing data centers, capacity, availability, backup, disaster recovery and so on, frees time for your team to shift their focus from IT maintenance and support to multiple other channels that provide value for your business' end goals.

Similarly, the agility enabled by cloud encourages your teams to experiment more. A cloud-native system has quick access to a broad set of resources. This allows you to set up fast installation and configuration of your software, do all the necessary test exercises (experiment) and then take a new product or feature to market. In the worst case, you "fail fast" and pay only for the time you actually used the provisioned resources. This gained speed provides the perfect scenario for developing new sources of revenue at a faster rate and encourages innovation through quick access to experimentation.



These gains in agility amount to the cloud being an ROI multiplier unto itself.

Cloud computing allows IT enterprises to focus their attention on doing things that help grow revenue, increase customer engagement, open new product channels and address the enterprise's goals. As you move through cloud migration, you may notice your engineers have newfound time to innovate and explore new technology. Newly refactored cloud services may allow your company to streamline end-to-end business processes.

A new culture built on cloud enablement will emerge that focuses on speed and cooperation.





conclusion

We've watched clients experience exponential cloud returns as pleasant and unforeseen surprises during their cloud journey – building on each other exponentially, relative to the level of cloud immersion the organization undergoes.

A key realization when performing a cloud assessment is that the cloud is an economic innovation, and every benefit will translate into an economic impact that multiplies and builds on itself.

Yet equally important is that TCO and ROI calculations are not complete on their own. Rather, they must be supplemented with a deep understanding and appreciation of the scope and value of the intangible benefits.

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