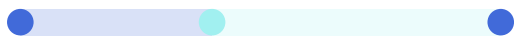


# srijan:

## How to Measure the ROI from Your **Cloud** **Migration Efforts?**



# Introduction

By 2020, the public cloud service market is expected to reach \$266 billion worldwide. 94% of enterprises already use a cloud service. And more are to come. Infact by 2020, 83% of enterprise workloads will be in the cloud.<sup>1</sup>

But what is the reason for this growth in cloud adoption by enterprises? Businesses may choose to migrate to the cloud for a variety of reasons - cost savings, agility, opportunities for growth and innovation being some common ones. However, achieving those goals is easier said than done. It involves a great deal of anxiety and hesitation on whether the capital, time and efforts invested in this process is even worth the return on investment (ROI) it generates.

There have been several instances where organizations have moved to the cloud, only to realize that their savings have not been as high as expected. Wrong calculations, leading to more expenditure than before the migration, have made organizations wonder if they've made the right decision.<sup>2</sup>

Thus, before undertaking any cloud migration project, it's important to assess the ROI from it.

How?

Unfortunately, there's no direct way of measuring cloud ROI. And while there are various views on cloud cost savings and what constitutes real savings, the real measure can only be associated with the factors that are driving the organization to move to the cloud.<sup>3</sup>



**\$266  
billion**

\$266 billion is the  
estimated market  
size of public cloud  
service by 2023

- Gartner

Based on this, the ROI from a cloud migration could be measured in terms of the:



Productivity of the team



Investments done



Revenue generated



Need to reduce costs



Dependency on third-party managing infrastructure, and



The drive to improve business agility and reduce technical debt

However this varies for different cloud strategies that you may adopt.

For example,

- If you move to public cloud, you generally decrease investment but increase cost. Whereas with private cloud, it is the other way round.
- You can improve or worsen ROI either way, depending on your revenue and speed of return. Revenue can be increased by improving the delivered features and quality – which enable a higher price to be charged – or by operating on a larger scale. But improvements in features, quality, and scale generally also mean higher costs. You must get the balance right.<sup>4</sup>

In this e-book, we take a look at the salient points for improving the quality of your cloud migration approach, and how to measure the ROI from it.

# Cloud Readiness & Cloud Adoption

A key first step in the success of any cloud adoption initiative is the very adoption of the cloud. The 2019 RightScale's "State of the Cloud" reports that most enterprises are already running a majority of their workloads on the cloud<sup>5</sup>. Further, the report also states that use of PaaS services for applications like DBaaS, Queuing, Caching, Search, Container as a Service are on an explosive rise.

The rationale of ever increasing cloud adoption, including that of mission critical applications is basically the result of increased application resilience, stability, availability & performance at scale. AWS provides you the relevant tooling to build, operate & industrialize fully resilient distributed applications, that span multiple availability zones and fully managed services for applications. Business applications are now able to thrive better in an economy that demands greater than three 9's of uptime.

## **Key metrics for ROI measurement:**

- What is the history of outages incidents (by severity) in the last year?
- What is the designed availability rating of your flagship product and its individual components?
- What is the business & operational cost of downtime?

## What Srijan Recommends:

- Every cloud journey is unique: Your first major application on the cloud will pave a major learning journey that will set the stage for further applications to follow
- Setup basic failure scenarios (Chaos Engineering) and fully simulated game days to ensure application fault tolerance
- Setup application & infrastructure KPIs to measure availability
- Velocity is the key to learning and realizing value: Building a roadmap for the next line of applications scoped for cloud in a migration factory approach: Agile sprints delivering a fully functional migration into production

# Improving User Experience & Engagement

Wordpress trends reports that global print media revenues dipped by about 3% in 2018. In particular, while print ad revenues were down by 7%, digital revenues increased by 5%<sup>6</sup>.

While digital readily garners the dollars from the marketing & growth budgets, ROI is determined by multivariate factors involving content, community and commerce (& Customer Experience). Most media and newshouses are setting up special purpose chief digital offices, innovation offices and hiring digital marketing gurus at scale; there is an industry wide consensus about the role of the following aspects:

- **Providing consistent omni-channel experiences:**  
A progression towards progressive web apps that are platform & device agnostic
- **Determining user context** so as to add intelligence to your digital applications
- **Measurable increase in engagement:** Achieved through deep analysis of user behaviour, aided by AI/ ML services so as to provide a personalized experience
- **Finding new ways to disrupt the content supply by**
  - Automating content lifecycle management through AI/ ML applications that may automatically tag or enrich content with relevant media
  - Increasing your content inventory size with robotic journalism, and automatically producing high-speed fact-based content to increase traffic. And get content writers to focus on more insightful & engaging content to retain traffic longer

## Key metrics for ROI measurement:

- What is the total site traffic by property?
- What is the ratio of returning users?
- What is the total subscriber base?
- What is your mean bounce rate?
- What is the mean session time per user?
- What is the mean page value?
- What is the mean lifetime value of your subscriber?
- What level of contextual intelligence & adaptability (personalization, recommendation) does your application provide?
- What is the mean SAT score of application experience?

### What Srijan Recommends:

- Consolidating existing siloed programs to create a holistic, closed loop plan: Including tooling (particularly addressing build or buy)
- Kick start adoption of decoupled front-ends, such as with PWA frameworks like React & React native, or a derivative like Next.js or Gatsby.js
- Plan towards a comprehensive, modern CIAM solution, that can be used in conjunction with profiling data from disparate sources to build a classic “customer 360” profile
- Evolve a strategy to provide personalized experiences based on intelligence gathered: At a minimum, recommend content & provide next best action to enhance page value
- Build a cloud data lake and explore use-cases for bleeding edge experiences involving real-time personalization
- Explore emerging use-cases to support voice first experiences (for virtual assistants), face-less devices, AR/VR gadgets



# Modernizing (Legacy) Applications

Gartner rates Application Modernization as one of the top CIO concerns in the age of advancing cloud adoption. IT leaders have to routinely deal with the ever increasing pressure of business requirements in the digital economy, while finding ways to manage an even larger technical debt resulting from years of legacy.

Modernizing applications involves dealing with the nuances of choosing a host of approaches (re-hosting, re-platforming, re-architecting, re-engineering.. retiring) while making a statement of cost benefit analysis to the business sponsors.

The modernization dilemma often involves hard decisions made now that have the potential to non-linearly decrease costs of operations as well as re-rationalizing your application portfolio to your changing business needs.

## **Key metrics for ROI measurement:**

- What are the bundled IT costs of maintaining current portfolio of application on-premise?
- What is the mean SLOC across your current portfolio of applications?
- What is the current level of technical debt across your portfolio of applications?
- What is the mean cycle time across development, QA & operations to deliver a change request into production?
- What level of modern integration & interoperability standards (GraphQL, REST, Event Streams) does your portfolio support?
- What is the mean SAT of application experience from end-users?



- What is the cloud native maturity of your current applications?

### **What Srijan Recommends:**

- Review your IT portfolio in alignment with your EA framework: It is often helpful to look at your application domain as involving a: Transactional applications (“System of records”) b: Middleware (Orchestration & Coordination Applications) c: User Facing Applications
- Seek quick wins by adopting an API first Drupal distribution<sup>7</sup> to modernize your Drupal applications. This way, Drupal behaves as a scalable data store and back office content management, providing content as a service to a host of new age consumer applications
- Assess opportunities to de-couple applications over API contracts so they bind to an interface, rather than a specific implementation. Leverage an API lifecycle management platform to pivot towards a product centric, devops approach
- Evolve API standards to ensure new services are expected to conform
- Ensure self-service and re-use by publishing an org-wide inventory of API products
- Enable your organization to evolve application domain boundaries to mirror business capabilities

# Building Platform Efficiencies

As businesses have evolved to greater levels of digital centricity, across industries, there opens up an opportunity to centralize responsibilities of cross cutting technologies as well as the organization groups that manage them. While this is less trivial than said, a platform well built provides very significant capabilities to create efficiency centers that can reduce costs of personnel, process overheads, infrastructure.

Martin Fowler defines a digital platform as "a foundation of self-service APIs, tools, services, knowledge and support which are arranged as a compelling internal product. Autonomous delivery teams can make use of the platform to deliver product features at a higher pace, with reduced coordination".

Going a step further, platforms also open up further latent potential for evolving tenancy of applications to create optimal economies of scale, whilst also delivering stronger governance.

The 2019 State of the Cloud Survey observes<sup>5</sup>:

- Kubernetes, a container orchestration tool that leverages Docker, achieved faster growth, increasing from 27 percent to 48 percent adoption
- The AWS container service (ECS/EKS) has 44 percent adoption in 2019 (flat from 2018), while Azure Container Service adoption reaches 28 percent (up from 20 percent in 2018) and Google Container Engine grows slightly to reach adoption of 15 percent

In a final summary, it is important to note that Kubernetes has already emerged as the leading incumbent in the space of container platforms, offering a set of distributed system primitives, whilst remaining cloud agnostic. This provides the

business a robust platform foundation without being locked in.

### **Key metrics for ROI measurement:**

- What are the runtime stacks in use? How are they governed at present?
- How are cloud / IT resources partitioned?
- How is your IT portfolio of applications tiered?
- What is the mean rate of change across tiers?
- What is the mean cross-team coordination & process overheads for delivering change?
- What is the mean cross-team coordination & process overheads for launching new products?
- What is the level of SAT across the following stakeholder team perspectives?
  - ITSM & Operations
  - Development
  - Security & Compliance
  - Governance & Cost Control
- From incident history, what is the MTTD, MTTR, MTRS?

## What Srijan Recommends:

- Industrialize platform and product operations with automation: Highly robust CI/CD as a Service, enabling product teams to perform deployments at will, with confidence
  - Evolve to the emergent culture of feature flags, canary rollouts to minimize blast radius and retaining a roll back path
- Detailed application portfolio audit to identify common components & cross-cutting concerns
- Separation of concerns between “product teams” and “platform” as to enable two speed IT
- Define an incremental platform vision, based on the asks of business domain, key redundancies presently managed by product teams and pain points (including technology or processes) that slow down time to market
  - Orient a corresponding product model that is geared to by 12-factor style stateless application<sup>8</sup>
- Capture key governance requirements and KRAs for platform maturity
- Extend existing cloud center of excellence with a cross-functional team to handle the entire lifecycle of the platform, including security & operations
- Carefully define tenancy concerns of applications, in cognizance of business domain, product or service ownership, application components, inter-service communication, impacts of shared runtime resources & fate

# Building a Culture of Embracing Change

Global surveys and leadership speak across industries indicate that driving transformation goals is for a large part, enabling a culture of embracing change. This involves breaking silos, re-organizing smartly, creating safety, enablement and agency to deliver success at all levels of the organization.

## Key metrics for ROI measurement:

- Mean time to key decisions
- Self-appraisal perception of organizational change agility within product teams
- Perception of organizational change agility within key leadership
- Historical incidents caused by organizational design

## What Srijan Recommends:

- DevOps oriented accountability with product teams: You build it, you run it (Joint responsibility model)
- Enablement of emergent technology needs in a polyglot multi-platform multi-cloud world: Trainings, workshops
- Timely exposure to an outside-in perspective, regularly aided by feedback loops

# The Last Word

Being able to measure the ROI from your cloud migration efforts is an essential step in recognizing if or not cloud migration is an ideal step for you. Your ROI analysis should include a comprehensive and clear breakdown of everything involved in the cloud assessment, in formats that are easy to present.

Compare your key metrics that map to the investments made in the process, to the key metrics that reflect the outcomes of your approach. And forecast a three to five year cash flow and savings.

Backed with valuable data, key objectives and a clear roadmap for success will make your cloud migration project much less daunting and more valuable for your business today and into the future.

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Srijan is working with leading enterprises in the US, Europe and APAC regions. We are aiding these enterprises' digital transformation journeys, helping them drive superior digital customer experience and future-proof their content ecosystem with Drupal. Our teams work closely with enterprise business and technology stakeholders to create solutions that align with the organizations' overarching strategic goals.

Looking for a cloud migration approach for your enterprise? Let's do a little brainstorming and see how we can help gain ROI from it.

**Book a Consultation**



Srijan is a platform modernizing firm that builds transformative digital paths to better futures for Fortune 500 enterprises to nonprofits all over the world. We have championed open-source technologies over the last two decades, bringing advanced engineering capabilities and agile practices to some of the biggest names across FMCG, Aviation, Telecom, Technology, and others.

We lead in Drupal with 300+ Drupal engineers and 75+ Acquia certified Drupal developers and are amongst the 4th globally. With preferred partnerships with Acquia, advanced consulting partnership with AWS, and APIGEE we offer the best technology stack in the market.

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