

Transforming Future: The Cloud Way

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Abstract Cloud technologies are now challenging the paradigm of transact then transform by enhancing existing or enabling new IT capabilities. This paper aims at looking at modern day strategies to approach transformations. Cloud has already proven to be game changer in various business scenarios. This paper explores cloud specific use cases when organizations are revisiting their operating portfolio especially in cases of mergers and acquisitions (M&A) and how cloud can help accelerate this journey.

Keywords Cloud Transformation, Operating Model, Digital

1. Introduction

This whitepaper explores strategies to conduct Cloud transformation during a Mergers & Acquisitions (M&A) transaction. Cloud technologies are breaking conventional wisdom that technology driven transformations must be minimized or paused during a M&A transaction in order to ensure the transaction's success. Cloud is proving to be a key enabler for businesses to transform while they transact, both during integrations and separations, to accelerate achieving the target business end state strategy. Cloud driven transformations enhance the value of the deal by unlocking business capabilities while minimizing negative impacts like dis-synergies and layered technical debt. Additionally, Cloud accelerates M&A execution and realization of target benefits of the transaction [1]. Long lead time tasks, such as data centre consolidation, Information Technology (IT) infrastructure provisioning, and application migration can be reduced from durations of months to weeks.

2. Cloud Transformation Value

M&A transactions are conducted for a wide variance of reasons and each one is unique in its execution. However, a challenge that is common to almost all M&A transactions, both integrations and divestitures, is the IT execution. The IT integration or separation almost always has the longest duration, is the most expensive, and includes the most complexity. Additionally, IT is a key enabler of every

business function, making IT critical to the success of the M&A program. Therefore, conventional wisdom has been to delay any IT transformations until the M&A transaction is complete to reduce program risk and ensure limited IT resources are focused on the transaction execution, delaying achieving the end state goal of the merger or divestiture. At the same time, companies are facing increased challenges to securely and effectively manage large volumes of sensitive and confidential data, reduce high IT investment costs resulting from complex and capital-intensive IT footprint, and increase agility by being able to quickly scale up or down to support changing business needs. M&A transactions often amplify these challenges by adding additional IT complexity and technical debt that can only be addressed when the M&A execution is complete.

Cloud technologies are now challenging the paradigm of transact then transform by enhancing existing or enabling new IT capabilities [2]. Benefits of Cloud are rapid scaling of IT assets, speed to market, enhancing innovation, and reducing IT costs and footprint. Specifically, within M&A transactions, Cloud drives acceleration of the M&A transaction while also enabling transformation during the transaction. Cloud is now demonstrating that companies can transform while they transact, turning potential M&A 'deal breakers' into a 'deal makers.'

3. Integration Cloud Strategies

3.1. Transformation during Application Rationalization

A primary objective of integration is the removal of duplicate processes and assets. One of the areas this is most prevalent for duplication elimination is the organization's application portfolio. A decision must be made on every application in the acquired business into one of the following:

Retire – Bring to end of life with no replacement

Migrate to buyer app – Replace with buyer application

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Migrate to acquired business app – Replace with acquired business application

Lift and shift acquired business app – Move buyer application with no changes

Transform – Transform to new application not currently utilized by buyer or acquired business

Traditionally, transformations during the integration were the least desirable option. However, as Cloud removes costs and lead times to transform, organizations are utilizing integration budgets to transform more parts of the application portfolio rather than migrate now and transform later.

As with any application rationalization, transformation decisions should be based on target state business capabilities and how well the existing application portfolios enable them. Cloud enabled transformation opportunities should be considered as a result of business capabilities that are currently not well served by existing applications or that do not currently exist. Secondly, Cloud enabled transformations should be considered where there are substantial opportunities for improving operation cost efficiencies [3].

3.2. iPaaS Enabled Integration

Application integration between the buyer and the acquired business can bog down post-merger integration, leading to delayed target state benefits and longer transition services agreements (TSA) durations [4]. This is complicated by increasingly complex IT infrastructure ecosystems utilizing combinations of on-prem, private cloud, and public environments. By 2021, approximately 75% of Fortune 500 firm will implement a multi-cloud-capable hybrid environment, up from less than 25% in 2018 [5,6]. Furthermore, businesses must future proof their integration platforms as business needs arise for integration with IoT, 3rd party RPA, and mobile.

To address these application integration challenges, integration Platform as a Service (iPaaS) is becoming increasingly prevalent. iPaaS is a cloud-based service, enabling connectivity to SaaS and Cloud services and providing a secure method of accessing on-premises applications behind a firewall. The integration technology is gradually replacing traditional forms of integration middleware to take more advantage of Cloud technologies and standardize application interfaces.

4. Separation Cloud Strategies

4.1. Data Center Migration to

Infrastructure-as-a-Service (IaaS)

When a business is spun-off or acquired by a buyer that will maintain independent IT operations, the divested business must quickly stand up new IT assets and capabilities. Long term transition service agreements [8] (TSAs) with the seller can be ~24 months to allow time for fully separating IT. This type of transaction presents an

opportunity to migrate off traditional data centres to public IaaS, adopting a Cloud first strategy.

Every journey to migrate to a Cloud first strategy is unique. However, the following four phases are generally required to perform the migration.

Phase 1: Assess the application portfolio for Cloud suitability: Not all applications can be easily migrated to IaaS, requiring changes to the target application portfolio. Ultimately, every application that the business uses must be categorized into six groups:

Retire – Bring to end of life

Retain – Leave application as part of on-premise legacy non-cloud infrastructure

Replace – Replace by another application or set of applications that are on cloud infrastructure or provided as SaaS

Rehost – Lift and shift as is onto a Cloud IaaS stack

Re-platform – Adjust application components that are not available on the cloud or not cost-effective

Refactor – Perform targeted changes to application component is not cloud suitable

Phase 2: Develop the Cloud Strategy and Architecture Design: After blueprinting the future application landscape to utilize IaaS, key IT infrastructure design decisions need to be made on how to enable the new landscape. These include the Cloud strategy (e.g., single vs. multi-cloud vs. private cloud), network design, identity access management (IAM) approach, provisioning approach, data migration, and data residency. Ultimately, this should result in a target end state architecture.

Phase 3: Project Stand-up and Execution: Following the completion of Cloud strategy and design decisions, detailed plans must be drafted, and execution initiated. Prior to initiating individual projects, foundational steps must be taken, including stand-up of essential services (e.g., environment monitoring and network), cloud onboarding governance, security and compliance, Cloud centre of excellence. This phase is critical to the success of the migration, preventing re-work and minimizing execution risks. Projects must be managed within a framework of a program roadmap to account for interdependencies. Piloting is an important approach to consider reducing risk of failed migrations and to quickly gain lessons learned before deployments to the full user population. As much as possible, the migration should utilize industry leading migration automation tools to capture and migrate workloads.

Phase 4: Deployment: Finally, migrated applications are deployed into production environments. These go-lives are typically grouped into phases based on dependencies and coincide with TSA exits. The required time for deployments can greatly vary dependent on the scope of the migration, available talent, and complexity of the business.

4.2. SaaS Migration

In many ways, migrating from on-prem applications to a Software-as-a-Service (SaaS) based solution is like any application transformation during a separation. Migrations

can be performed with little impact to other areas of the IT landscape and require many of the same implementation activities. Additionally, SaaS migrations do not require a full Cloud first strategy, allowing more targeted transformations and supporting future Cloud enabled transformations in other parts of the business.

However, these migrations can be performed much more quickly than an on-prem to on-prem due to the elimination of IT infrastructure environment provisioning, application installation, and stand up of a full technical support team. These are particularly strong benefits when a business is being spun off or acquired with the intent of operating independently to quickly exit Transition Service Agreements (TSAs), reduce additional headcount, and minimize inherited technical debt from the parent company. Specific areas that should be considered for SaaS Migration are the (Enterprise Resource Planning) ERP, Human Resource Information systems (HRIS), Customer Relationship Management (CRM), Travel and Expense (T&E), Procurement, and email/IAM applications.

4.3. IT Operating Model Transformation to become Digital

Rarely do divested businesses not perform some level of operating model transformation as part of the separation. This is particularly true for IT as most organizations centralize to gain the benefits of scale, shared knowledge, and supporting enterprise IT assets. In the case of the sold business being acquired by buyer, operating models typically transform to conform to the buyer's operations. In the case of a spin-off or acquisition where the business will be operated independently, like in the case of a private equity (PE) firm, the business has can utilize the transaction to transform their organization to become more digital.

Transformed IT operating models to support truly digital business is almost always accompanied by and enabled by strategic cloud technologies [9]. Digital businesses must be organized for continuous innovation with minimal barriers to experimenting, developing, prototyping, and deploying new solutions. Cloud specifically enables businesses to be organized for innovation in two primary areas:

1. **Agile and DevOps Workforce:** Cloud is a key enabler in shifting not only the IT function, but the entire organization to Agile operations with integrated DevOps [10]. Development teams can self-serve to stand up entire environments in hours instead of weeks, IT infrastructure teams can focus on continuously improving operations and less on responding to incidents and requests. Finally, business teams can partner with dedicated IT teams to experiment and develop new solutions to improve or create new business capabilities in a fraction of the time.
2. **Access to New Technologies:** Unless an organization has substantial scale, inhouse industry leading technology platforms in AI, AR/VR, analytics, security automation are often cost prohibitive.

However, these platforms come out of the box with public IaaS with no upfront licensing costs. Access to these technologies and the ability to integrate with enterprise applications gives business teams a wider range of opportunities to experiment and innovate [11].

5. Cloud Selection Strategies

5.1. Right Deployment Model Drivers

Once the decision has been made to go the cloud way, the most important question is determining the right cloud deployment model [12]. There are four cloud deployment decision drivers:

Business Imperatives – Business needs to scale, usage predictability and trends, time to market

Application Characteristics – Application compatibility, roadmap and key technical and functional dependencies

Data Requirements – Data gravity, magnitude and network latency requirements

Resource Availability – Skillsets availability and staffing requirements for engineering and deployment

5.2. Cloud Deployment Options

Depending on an organization's cloud strategy, three deployment options exist:

5.2.1. Public Cloud: Engineered for modern applications with pre-approved compliant and scalable services, DIY (do-it-yourself) models and innovative technologies. Public cloud is a preferred option in following use cases:

- Rapid scalability is a key business requirement
- Business operations are distributed across geographies
- Workload demand is unpredictable or highly seasonal
- New applications or architecture is being introduced
- Products with short lifecycles and require rapid changes
- Access to the latest technology with the ability to easily test, learn, and innovate is a priority

5.2.2. Private Cloud: Designed for legacy workloads and those not suitable for public cloud; ensuring highest data security, availability and integration across regions. Private cloud should be considered in following conditions:

- Regulations restrict the usage of public cloud
- Classified or sensitive data is being handled
- Latency requirements of the workload cannot be met by the public cloud
- Specific use cases or functionality is not provided by the public cloud provider
- Activity contractually forbidden by provider

5.2.3. Hybrid Cloud: Combined on-premises infrastructure / private clouds with public clouds so that organizations could achieve benefits of multiple platforms. Hybrid cloud is a good intermediary path between public and private cloud and has its consideration criterion:

- Regulations / localities restrict public cloud usage
- Need to maintain a private infrastructure for some certain sensitive assets
- Multiple on-premise and public data requirements
- Apply phased migration over time to cloud to avoid overwhelming cloud transition

6. Use Cases

6.1. Financial Services NetSuite Migration

For a major financial services organization, high IT maintenance costs and a lack of operating efficiency were impediments to their goal of becoming #1 in the travel industry. Following a joint venture with a private investment firm, it understood that transitioning to the cloud would be essential in meeting these challenges. The firm started their cloud journey with an ERP vendor selection and transformation project with the goal of realizing synergy targets through streamlining global IT and identifying business drivers. It went through the application dispositioning process under categories such as retire, rehost, re-platform etc. and formulated an action plan to move forward with its cloud strategy. Next, given the nature of financial business and data compliance and risks, the decided to go for a private cloud. In the end, the firm succeeded in accelerating reductions in operating and maintenance costs with a NetSuite Cloud-based ERP solution which reduced the client's IT footprint and realized synergies through the decommission of over 15 financial systems. The cloud solution enabled an ambitious timeline, and the new systems went live in primary markets in less than 7 months and in all markets in 16 months. The success and speed of the transformation was paramount to the prosperity of the joint venture.

6.2. Financial Services Company Moves to Google Cloud IaaS

In 2019, a financial industry leader executed a cloud-first strategy to reduce costs, improve technology agility and scalability, enhance customer experience, develop Cloud-enabled disaster recover, and address post M&A data center capacity issues. This process involved the pursuing end-to-end journey to migrate more than 70,000 vCPUs to Google Cloud Platform in three months. The firm worked with leading cloud engineering vendor to support the migration by defining an overall approach, providing detailed migration guides and technical support, and minimizing manual effort with the design and implementation of automation scripts specific to client's environment, drastically reducing the timeline. The outcome was an on-time and within budget successful GCP migration in three months. The client quickly experienced the positive effects of this migration by avoiding an incremental outlay of around \$30M in costs that would have accrued had they continued to manage these environments on premise. Post go-live, 5,000 client developers are now on GCP, and the

solution is processing over 7.5 billion hits per day. The client is experiencing capital cost savings, improved capacity and provisioning, and has gained significant learnings on their path toward the public cloud.

7. Conclusions

Organizations will continue to look for M&A transactions for their inorganic growth [14]. The cloud-based approach to mergers or divestitures will help realize greater synergies in an accelerated fashion. In addition, the favourable cloud economics will provide additional flexibility to invest in other innovative areas such as machine learning, automation etc. for the greater benefit of the business. Finally, recent crisis of COVID-19 has exposed the critical dependency on Cloud for business continuity. This global phenomenon will propel several digital transformations in future, a path enabled via the cloud way.

REFERENCES

- [1] Deloitte Tech Trends 2019 - <https://www2.deloitte.com/us/en/insights/focus/tech-trends.html>.
- [2] Driving M&A acceleration through cloud - <https://imaa-institute.org/driving-growth-competitiveness-can-power-cloud-lift-ma-value-stratosphere/>.
- [3] NoOps in a serverless world - <https://www2.deloitte.com/us/en/insights/focus/tech-trends/2019/noops-serverless-computing-transforming-it-operations.html>.
- [4] Pitfalls of IT M&A - <https://deloitte.wsj.com/cfo/2019/08/14/how-to-dodge-it-tsa-pitfalls-during-ma/>.
- [5] Cloud as innovation driver - <https://www2.deloitte.com/us/en/insights/industry/public-sector/government-trends/2020/government-cloud-innovation.html>.
- [6] Gartner Cloud Trend Report- <https://www.gartner.com/document/3980925>.
- [7] Vikram Kunchala et al., *DevSecOps and the cyber imperative*, Deloitte Insights, January 15, 2019.
- [8] Transition Services Agreements (TSAs) - <https://www2.deloitte.com/us/en/pages/mergers-and-acquisitions/articles/design-manage-transition-service-agreements.html>.
- [9] Digital disruption and cloud - <https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/technology/deloitte-nl-consulting-digital-era-tom-summary.pdf>.
- [10] DevOps & enhanced cloud computing - <https://www2.deloitte.com/us/en/pages/consulting/articles/how-new-practices-technologies-and-players-are-shaking-up-devops-kubernetes-docker-cicd-cloud-computing.html>.
- [11] AI/Innovation in public cloud - <https://www.idc.com/getdoc.jsp?containerId=prUS44417618>.
- [12] Cloud success is in its strategy - <https://www2.deloitte.com/us/en/pages/consulting/articles/want-cloud-success-its-in-the->

strategy-not-the-tools-security-blockchain-sre-devops-anthos-cloud-strategy-kubernetes-cloud-value-proposition-cloud-computing-best-practices.html.

[13] Getting cloud right - <https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu-fsi-cloud-for-swiss-banks-report.pdf>.

[14] M&A for growth - https://www2.deloitte.com/content/dam/insights/us/articles/4640_MA-in-CP/DI_MA-in-CP.pdf.

[15] Cloud meets Covid-19 - <https://www.gartner.com/document/3983341>.