Oracle@Oracle Industry Cloud Infrastructure Story

3.2 / Aligning Financial Objectives

WHITE PAPER / OCTOBER 7, 2020

ORACLE

DISCLAIMER

This document in any form, software or printed matter, contains proprietary information that is the exclusive property of Oracle. Your access to and use of this confidential material is subject to the terms and conditions of your Oracle software license and service agreement, which has been executed and with which you agree to comply. This document and information contained herein may not be disclosed, copied, reproduced or distributed to anyone outside Oracle without prior written consent of Oracle. This document is not part of your license agreement nor can it be incorporated into any contractual agreement with Oracle or its subsidiaries or affiliates.

This document is for informational purposes only and is intended solely to assist you in planning for the implementation and upgrade of the product features described. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described in this document remains at the sole discretion of Oracle.

Due to the nature of the product architecture, it may not be possible to safely include all features described in this document without risking significant destabilization of the code.

INTRODUCTION

Cloud enhances resilience, scale, and scope of infrastructure services. A successful transformation requires enterprises to re-examine and adapt their technology, organizational structure, and business practices, impacting everything from long-term product roadmaps to planned technology investments. This series explores Oracle's experiences consolidating its Global Business Units (GBUs), a set of eight industry-focused software groups that serve over 199,000 customers with 60+ products running in 80 colocation data centers, onto Oracle Gen 2 Cloud. This paper examines the financial objectives of the cloud migration and the steps involved in planning the estimating the return on investment (ROI) of the cloud transition and the key performance indicators (KPIs) needed to track the success of the program.

Product teams organize around high-level, technical benefits of cloud delivery such as scalability, modernization, and standardization. However, to change and investment for cloud transition, businesses need a clear view of how these benefits impact the organization's P&L as well as the investments required to unlock these capabilities.

The cloud transition entails major changes across the organization's products, operations, and relationships with its customers. Approaching these changes in a unified, big bang approach means adopting a tremendous amount of risk. At the same time, the opportunity of transformation directly relates to the scope of change. A pure "lift and shift" of existing architectures will require less investment, but will also yield less value. Re-architecting an application requires considerable development investment, but also yields more benefit, faster. Structuring the cloud transition requires an organization to define key milestones that account for the amount of change required as well as the costs and financial benefits it unlocks.

ASSESSING THE BENEFITS OF THE CLOUD TRANSITION

For organizations moving from on premises or complex and heterogeneous hosting environments, the most tangible financial benefits tend to result from infrastructure and other technology expense or labor expense, stemming from either direct workforce reductions or the scalability of the workforce against expanding workloads. These metrics will not always capture the full variety of benefit that comes from the cloud transition. Nonetheless, they are essential guidelines to justify and scope the work and changes undertaken in the cloud transition.

Accessing the financial benefits associated with the resiliency, availability, elasticity, and automation capabilities of IaaS and cloud delivery models, requires deeper investment in product and architecture change. Organizations may structure and sequence these investments in any number of ways. Doing so required clear delineation of these milestones and their associated investments and benefits in order to assess ROI by each stage. The first milestone is the application's "cloud landing state", meaning its architectural and cloud delivery posture at the time it becomes available on the cloud. This state aligns closely to the high-level cloud maturity categories identified in 1.2 Oracle@Oracle Industry Cloud Infrastructure Story: Paths to Value in the Cloud:

- **Cloud Hosted:** replicating traditional enterprise architecture as single tenant application with state managed across tiers and deployed in VMs or directly on compute resources
- **Cloud Optimized:** architected to take advantage of core cloud capabilities, such as common shared internal services and platform provided services (PaaS) and may be deployed in containers and stateless application tiers
- **Cloud Native:** architected to take advantage of full cloud capabilities, such as availability zones to support zero downtime, CI/CD pipelines, and Development Operations models

Each category carries a different degree of impact on core sources of cloud delivery expense (Table 1). How an application changes between its legacy state and its state on IaaS will provide a basis for estimating the immediate benefits of the cloud migration. In some circumstances, these benefits will be sufficient to justify a large amount of investment upfront, accelerating the product's transition to a cloud native model. In other circumstances, the transition will not be a one-time effort. It is not uncommon for organizations to begin with a transition to Cloud Hosting, followed by subsequent investments that move the product further towards a true cloud native model. At each one of these stages, the organization needs to be prepared to understand the business contribution it is unlocking. This insight help to scope investment accordingly in order to create a progression of investments, each justifiable on its own incremental ROI contribution.

Table 1: Cost Reduction by Cloud Maturity Level and Expense Type

		CLOUD HOSTED	CLOUD OPTIMIZED	CLOUD NATIVE
High Impact	Application Management	Minimal	Moderate	Significant
	Network Management	Partial	Moderate	Significant
	Database Management	Partial	Moderate	Significant
	OS-level Management	Partial	Moderate	Significant
	Virtual Asset Management	Significant	Significant	Significant
	Physical Asset Management	Complete	Complete	Complete
Low Impact	Data Center Management	Complete	Complete	Complete

ANTICIPATING TRANSITION COSTS

As with any investment, the cloud transition requires a series of investments to achieve the value of the cloud. The first to be identified is related to the development time and labor involved in making the product changes required. However, this is only one of a broader array of expenses that the organization is likely to encounter in the transition, including:

- **Development Investment:** development labor required to re-architect the product or create accelerators to migration effort
- **Migration Execution:** labor resources required to provision new assets, migrate existing environments and data, and decommission legacy inventories
- **Infrastructure Uptake**: subscription fees accrued through IaaS ramp, which will transition to steady-state, but represent new increases through the migration period
- **Stranded Infrastructure**: lingering data center and capex depreciation costs that accrue through the migration effort until they can be eliminated or written off
- **Workforce Transition:** expenses associated with training, educating, or restructuring existing teams or for acquiring new resources with required cloud skillsets
- **Customer Transition:** costs associated with changes to environment features or service terms that cannot be supported in the new model. This may include new development, incentives, renegotiation of contract items, or customer attrition.

To a greater or lesser degree, each of these costs is a necessary component of the transition to IaaS. Each stands to impact the organization's cost profile in a different manner. Development investment and migration execution expenses, for example, can fall within one-time buckets, even if the resources associated with this work may be fixed. The uptake of new infrastructure will result in a net increase in expenses for a period of time until stranded infrastructure expenses are eliminated, even if the ultimate result is a reduction in infrastructure cost. Some workforce transition and customer transition expenses, such as training or migration incentives, will represent one-time expenses. Others, such as workforce expansions or changes in customer contracts, will potentially result in new on-going expenses.

Understanding how these dynamics will play out over time is essential for the organization to prepare and set expectations for the transition. Organizations enthusiastic about the dramatic benefits of the cloud, without a clear understanding of the transition risk are surprised by initial increases in expense in early stages, particularly as they absorb migration, overlapping infrastructure, and transition activities up front. Setting the right expectation and maintaining the visibility of incremental progress as it occurs are essential for maintaining alignment and discipline as the organization moves through the transition.

This requires understanding and aligning the costs, benefits, and scope of each phase of the transition. Simply "lifting and shifting" an application, as is, to new infrastructure will limit the scope of benefit associated with the migration. However, it also requires comparatively little development investment and change to existing processes, customer commitments, and workforce skillsets. Starting from this position to make subsequent investments in cloud delivery allows the organization to begin realizing some benefit from the transition, while adding change and the value realized over time. This is why, as discussed in 1.2 Oracle@Oracle Industry Cloud Infrastructure Story: Paths to Value in the Cloud, the Oracle GBUs set "Move and Improve" as the default cloud migration strategy, while product teams that justified deeper upfront investments, did so.

ORACLE GBU STORY: CREATING A COMMON CLOUD INVESTMENT FRAMEWORK

Focus on Cross-GBU Portfolio Management

The Oracle GBU portfolio includes over 60 applications addressing a myriad of industry use cases. This portfolio included over 12,000 application instances, each of which needed to be replicated on

Oracle Cloud Infrastructure, decommissioned in the legacy environment, or replaced by a new service.

The GBU portfolio includes products at all levels of the cloud maturity model, migration technical complexity and relative levels of revenue contribution. 1.3 Oracle@Oracle Industry Cloud Infrastructure Story: Assessing the Portfolio describes the set of technical and business assessments the Oracle GBU organization used to determine the appropriate transition approach for each product. This differentiated approach resulted in a high level of variation in cloud transition roadmaps, as well as the scope of investment and time to realize the value associated with each set of product investments. However, as many of the expenses and labor associated with the transition and migration effort fell within centralized cloud operations teams, product teams often lacked information needed to assess investment tradeoffs against a broader set of delivery factors.

To maintain visibility and alignment to investment costs and potential ROI across these teams, the Oracle GBU organization drew on a common set of definitions of expenses that had been established for measuring cloud cost of delivery across the portfolio (Table 2). Each of these expense categories rolled up a variety of sources of cost across product lines into a standard, universally applicable bucket. As a result, each product possessed a standard cost profile that could be used to easily compare the variety of actual cost drivers across the portfolio. This framework became the basic template for estimating common scenario models and assessment rules associated with the cloud transition activities. Using common rules to estimate the cost and the benefits, the Oracle GBU organization could model basic scenarios and estimate the potential impact of the migration strategy taken by each product.

Table 2: Key GBU Cost of Delivery Factors

	ELEMENT	KEY INPUTS
Platform Expenses	**Infrastructure**	• Legacy data center space and power • Legacy equipment capex depreciation • IaaS / PaaS subscription fees
	Third-party Technology	• Third-party technology license fees • Third-party support and maintenance
	Other Service Components	• Royalties or other IP licenses • Other non-software, value-added components
Workforce Expenses	**Infrastructure Management**	• Physical infrastructure management • Virtual asset / OS management • Database management • Network management
	Application Management	• Application management • DevOps management • Application updates • Application customer request management
	Consulting & Customer Success	• Customer support • Customer success • Consulting and implementation

Applying these frameworks to a product's cost profile established a standard method for playing out the "before and after" of various approaches to the cloud transition. Extending these dynamics over time permitted the organization to add considerations related to its investment expenses. For example, a migration planned to take six months, could be then be modeled to adding planned increases to Infrastructure Expenses and removing legacy costs components, as appropriate. This provides a common framework to model changes in product cost and estimated margin over the course of the transition that cut across the high levels of variability within the individual products and transition plans.

Based on this sort of analysis, an organization may identify certain services or customer engagements that will cease to be profitable in the new model. In these instances, the organization will empower itself to make the decision to depreciate services or relationships ahead of the migration effort. This will help the organization to avoid taking on investments that will only result in further erosion of margin 3.1. Oracle@Oracle Industry Cloud Infrastructure Story Transitioning to a Cloud Service Portfolio discusses the management of deprecating products in the cloud migration in more detail.

CONCLUSION: KEY OBSERVATIONS AND TAKEAWAYS

By building on an existing framework, the Oracle GBU organization enabled itself to model the impact of cloud transition investments within the scope of its existing portfolio management processes. Because this involved a standard set of pre-defined metrics, they effectively accounted for variations in the business across product line, while permitting roll-up to estimate total portfolio impact associated with the migration, without losing fidelity to individual product roadmaps.

In this way, the GBU organization became able to reevaluate the business impact of transitions plans on an ongoing basis and as they changed. Ultimately, this provided a central feedback loop that permitted assessments of how transition approaches affected the product's performance outlook. This sort of analysis, permitted teams to determine the ultimate end point of their cloud transition, the scope of their initial investment, and sequence the steps that would be taken in between.

ORACLE CORPORATION

Worldwide Headquarters
500 Oracle Parkway, Redwood Shores, CA 94065 USA

Worldwide Inquiries
TELE + 1.650.506.7000 + 1.800.ORACLE1
FAX + 1.650.506.7200
oracle.com

CONNECT WITH US

Call +1.800.ORACLE1 or visit oracle.com. Outside North America, find your local office at oracle.com/contact.

blogs.oracle.com/oracle facebook.com/oracle twitter.com/oracle

Integrated Cloud Applications & Platform Services

White Paper Oracle@Oracle Cloud Intrastructure Story 3.2 Aligning Financial Objectives

October 2020
Contributing Authors: Brian Bowman, Ben Goldsmith, David Houlihan, Abigail Porter, Mike Prindle