

ACCELERATED OCI CONSUMPTION WITH INFOSYS WAVE-DRIVEN APPROACH

Abstract

In today's high-speed digital world, cloud computing is no longer merely a nice-to-have technology. Enterprises must move their IT infrastructure to the cloud to leverage the power of cloud computing. In the scenario of acquisition or demerger the quickest way to integrate the IT infrastructure of both companies is by moving to the cloud. This paves the way for future productivity and growth.

This paper discusses the cloud migration model formulated by Infosys which is part of Infosys Cobalt portfolio. This model helps customers to adopt phase wise migration approach from their infrastructure to the Oracle Cloud Infrastructure (OCI) without any business disruption and grow the consumption while reducing overall infrastructure costs and providing high performance.

Introduction

As a leader in the cloud technology space, Infosys has perfected a cloud migration model that helps customers lift and shift their existing technology to Oracle Cloud in 14-16 weeks. By driving accelerated cloud migration, Infosys provides customers with an enhanced user experience, high performance, and a competitive edge.

The intention is to identify more workloads from the landscape for migration thereby increasing the consumption.

Phases of Infosys cloud migration model

Infosys cloud migration model comprises four major phases. Clear activities and deliverables have been identified in each phase. Having such a model in place helps quickly initiate the cloud migration activity by asking the right questions and gathering all the required information.

Phases	Assess/Discover	Design and Prototype	Migrate	Manage
Activities	<ul style="list-style-type: none"> Understand current operations Analyze as-is IT landscape – HW/SW/OS Discover and document infra/App/DB inventory Analyze options/tools for migration Assess LBR, DMZ and other critical setups Validate target system/ OS/network needs Assess existing issues, risks, and challenges 	<ul style="list-style-type: none"> Shortlist tools/method for migration based on assessment Finalize the detailed server/storage bill of material Design for RPO/RTO needs cloud account setup and network connectivity Design for cloud architecture, network, identity and security Create automation scripts to reduce human effort Produce a proof of concept (POC) 	<ul style="list-style-type: none"> List down preparatory tasks for existing infrastructure before lift/shift Perform DEV/QA/UAT migration Resolve and document integration issues Assess readiness for final cutover Create final cutover plan and decide on phased approach Final cutover, DR build, sanity and validation 	<ul style="list-style-type: none"> Transition to business and IT teams Plan for further app/ database patches Initiate capacity planning Ongoing optimizing resource/support costs Ensure Oracle-managed quarterly regulatory/ security updates Set up SLA monitoring Plan for further upgrades (as needed)
Deliverables	<ul style="list-style-type: none"> Inventory of Apps/DB/OS in scope High level migration strategy 	<ul style="list-style-type: none"> Detailed documentation for all applications/ databases Produce network topology documents Create instance strategy documents Build automation scripts/ solutions Configure Test/POC instance 	<ul style="list-style-type: none"> Detailed documentation for all applications/ databases Produce network topology documents Create instance strategy documents Build automation scripts/ solutions Configure Test/POC instance 	<ul style="list-style-type: none"> Create transition documents including process/administration guides Create application cookbooks

Ready tools to accelerate migration

Infosys has multiple pre-built tools, accelerators, and templates that can be used during all phases to provide accelerated consumption, cost savings, and increased collaboration.

Tools		Accelerators		Templates	
Provisioning Terraform Based OCI Provisioning	Monitoring Infosys Intelligent Ops Center	Migration workbench Cloud Application Migration Workbench	Suitability Cloud Suitability Framework	Compatibility Compatibility Analysis	Architecture Infrastructure Reference Architecture
WorkLoad Migration Infosys Workload Migration Tool	Infosys Database Migration Tool Ansible/Jenkins Based Script	Planning Analytical Wave Planning framework	Estimation Migration Point Estimation Framework	Risk Analysis Risk Assessment Templates	Best Practices OCI Migration Cookbook Templates



Infosys wave-driven approach for OCI migration

Moving the existing technology stack of an enterprise to a cloud-based infrastructure may seem like a complicated exercise. But if executed well with the right tools and processes, it yields considerable year-on-year savings in addition to providing a competitive technological edge.

Infosys has developed a wave-based approach to move Oracle and non-Oracle

workloads to the OCI platform. The entire exercise is carried out in three waves of activities:

Wave 1 – The business case for the OCI migration is established. Licenses are optimized across the organization and selected applications are migrated to ExaCS/Bare Metal server.

Wave 2 – Key business applications across divisions are migrated to OCI.

Wave 3 – Non-Oracle workloads such as Windows-based/Docker/Kubernetes applications are moved to OCI. Any other applications on third party servers are also migrated.

A wave-driven approach ensures that business-critical applications are migrated first and all other peripheral applications are taken care of in the next wave. Applications across various divisions of the enterprise are covered in one of the waves ensuring completeness of migration.

Wave 1

- Create a business case and value proposition from on premise to OCI migration
- License optimization
- Predictive YOY license and overall TCO
- Migrate/upgrade selected applications and peripheral

Wave 2

- Migration and upgrade of other key business applications from client/3rd party datacenter to OCI for different divisions
- Migration of peripheral application related to the major applications

Wave 3

- Migration of non-Oracle workloads like Windows based/ Docker/ Kubernetes apps to OCI
- Remaining applications residing on 3rd party datacenter to OCI



Case Study

Business situation

In 2017, a leading manufacturer of electric motors, drives, and electric power generation businesses of another target company. As with any acquisition, the move triggered the need for several huge infrastructure and IT landscape decisions. The client wanted

to migrate the target company's IT Infrastructure to their own co-located data center.

Solution proposed by Infosys

Infosys studied the IT infrastructure landscape of the client and the target company and proposed a complete

migration to OCI. For the client, the migration would be cost-effective, scalable, and efficient in the long run.

Infosys crafted a roadmap with the wave-based approach to migrate the client's workload to the OCI platform.

Wave 1

- Migrate Oracle EBS and related peripheral apps to OCI. Migrate all apps with Oracle DB to ExaCS for ERP application
- Migrate non-Oracle workloads such as SharePoint, iPoint, SQL Server and others to OCI

Wave 2

- Migrate and upgrade E-Business Suite 11i to 12.2.7 from 3rd party datacenter to OCI for different divisions
- Migrate peripheral ERP applications

Wave 3

- Migrate non-Oracle workloads like Windows-based/Docker/Kubernetes apps to OCI
- Migrate applications on third party datacenter to OCI



Advantages of wave-based approach for OCI migration

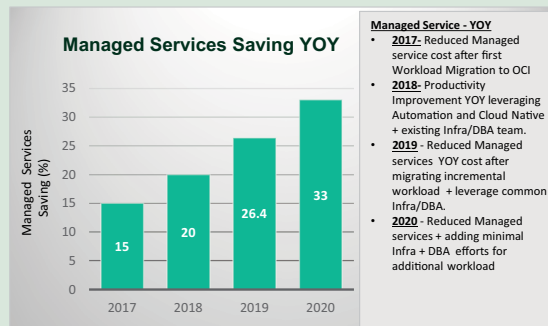
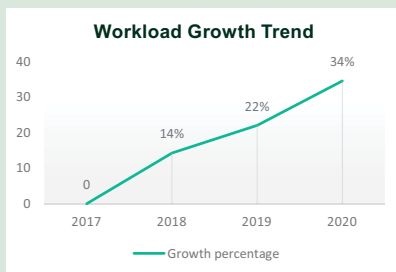
- Growing the consumption by identifying oracle and non-oracle workloads for migration
- Cost savings by using Infosys assets, and synergies between the infrastructure and DBA teams
- Faster cloud technology adoption using proprietary tools and accelerators developed by Infosys
- Minimal disruption of day-to-day working of the enterprise due to the phased approach

The Infosys approach to OCI migration resulted in several other optimization benefits for the client as shown in the table below:

60-70% improvement in provisioning time	25-30% improvement in CPU utilization
20-25% improvement in running batch jobs	15-30% effort reduction in managed services
25-30% reduction in response time	20-25% reduction in backup time

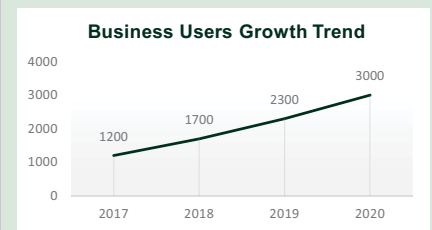
YoY cloud-consumption trend

As the charts indicate, the client's move to OCI using Infosys' proven wave approach resulted in considerable cost savings and accelerated growth for the organization. Between 2017 and 2020, the client's cloud consumption increased exponentially and corresponded to a similar growth in the user base.



Managed Service - YOY

- **2017** - Reduced Managed service cost after first Workload Migration to OCI
- **2018** - Productivity Improvement YOY leveraging Automation and Cloud Native + existing Infra/DBA team.
- **2019** - Reduced Managed services YOY cost after migrating incremental workload + leverage common Infra/DBA.
- **2020** - Reduced Managed services + adding minimal Infra + DBA efforts for additional workload



Conclusion

Today, regardless of the stage of maturity, it is imperative for enterprises to leverage cloud-based technologies for greater productivity and accelerated growth. Moving to cloud platforms does not have to be a risky or high-cost activity. By leveraging the experience and expertise that Infosys brings to the table, it can be a fast, cost-efficient, and highly productive move. Infosys' tried and tested wave-driven approach to grow consumption by analyzing the existing IT landscape, a clear roadmap, and speedy implementation of the OCI migration in phases. Enterprises will immediately begin to see tangible benefits with this approach.



Please reach out to oracle_mktg@infosys.com to learn more.

About the Authors



Syed Amber Naqvi

Principal Technology Architect, Infosys

Syed has over 20 years of extensive experience in Oracle technology, analysis, design implementation and upgrade. His current responsibility in Infosys is to provide the OCI Solution to different customer for oracle and non-oracle workloads.



Charudatta Joshi

AVP and Head Oracle Technology Services, Infosys

Charudatta Joshi has over 25+ years of hands on experience in IT solutions. He heads Infosys Oracle Technology center of excellence ideating new Cloud solutions, convert into compelling cost take out and value add offerings, prepare GTM Strategy , work closely with internal stakeholders, clients and liaison with Oracle. He leads a strong team of Oracle certified architects globally.

Infosys Cobalt is a set of services, solutions and platforms for enterprises to accelerate their cloud journey. It offers over 14,000 cloud assets, over 200 industry cloud solution blueprints and a thriving community of cloud business and technology practitioners to drive increased business value. With Infosys Cobalt, regulatory and security compliance, along with technical and financial governance comes baked into every solution delivered.

For more information, contact askus@infosys.com

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