Cloud Modernization & Optimization Services

What is Cloud Modernization & Optimization?

Our Cloud Modernization & Optimization Services is a framework comprising of strategies, applications, tools and Skills required to migrate data and analytical workloads from on-premises to cloud or optimize cloud architecture to enable Cost benefit, newer capabilities and achieve competitive advantage. The objective is to chart out a clear blueprint with tangible benefits.

Cloud Modernization & Optimization Framework



Building Blocks

There are various aspects on the analytics framework which needs to be assessed individually based on various aspects such as cost, business value, Agility, Risk etc. before optimization or modernization. The various building blocks that needs to be assessed are:

Data Management:

Data Management is the foundation of any Data & Analytics platform. There are various processes and associated technologies that needs to be analyzed in this area such as:

- i) Data Engineering / Pipelines
- ii) Metadata Management (Data Catalogs)
- iii) Master Data Management
- iv) Data Storage (Data Lake | Delta Lake | Data Warehouse)
- v) Real Time Data Streaming Infrastructure (APIs)

Enterprises can benefit significantly by either moving the workloads to cloud or optimizing the existing cloud services within this space or enable a hybrid approach. Our assessment framework will study the existing framework to arrive an optimal setup based on price, performance, and business value.

Analytics:

The data curated in the Data platform will be consumed using a variety of analytics / downstream systems. There are multiple services or products which enables various types of analytics using the data platform. The various products / services that needs to be assessed are:

- i) Descriptive Analytics(Dashboards)
- ii) Machine Learning Models (Predictive & Prescriptive)
- iii) Deep Learning Models
- iv) Data Sharing Frameworks (APIs)
- v) In-Line Real time analytics



Many enterprises struggle to properly manage cloud costs. Too quick to add to their cloud infrastructure, they miscalculate their cloud needs and how best to optimize resources - HBR

Modernization Pathways!

There are various ways to modernize Data & Analytics framework within the cloud and migrating to cloud.

Rehost | Re-Architect | Re-

<u>Platform</u>: These are the common approaches to modernize workloads from on-premises to cloud.

<u>Containers</u>: a standard way to package an application's code, configurations, and dependencies into a single object.

<u>Serverless</u>: a way to build and run applications and services without managing servers, removing the costs of acquisition and maintenance.

<u>Managed Data</u>: a fully managed, purpose-built database service, supporting diverse data models and applications. Managed

<u>Analytics</u>: range of services supporting analytics use cases like data lake initiatives, big data processing, real-time analytics, and operational analytics.

Tools & Services:

There are various tools or accelerators that will be utilized by our squads to perform the assessment including:

- i) **DBShift™ Smart** Scan
- ii) Cloud Consumption Reporting
- iii) **Usage Reporting**
- iv) **Data Catalogs**

Our Differentiators

Result Oriented Approach Clear Business Outcomes | Strategic Consultation

25+ Years of Experience

Program Management Flexible Sourcing Options | Effective Governance

Rapid Adaptation | Guaranteed SLAs & Savings

Agility & Quality

Cost Aware

Cost Model

Analytics Consulting | Multiple Industries | Rich Knowledge Repository | Vertical & Business Process Expertise

Hybrid (Onsite/Offshore) Execution Model | Predictable (Fixed)

v) **Analytics Catalogs** Etc..

Our Approach

Our approach involves taking a stock of the inventory and analyzing the usage of various data assets, cloud services, generated business value etc. and analyze the details to arrive at recommendations of optimizing cost.

Assess

- Understand Cost drivers
- Map out Existing CAPEX & license costs
- Catalog existing provisioned IaaS & PaaS Resources Map Spends to Business Value created
- Define Budgets & Forecasts
- Generate Consumption Patterns
- Generate Usage patterns of apps & services

6 Recommend

- Define Processes to achieve set benchmarks .
- Advise on areas of architectural changes
- Advise on areas of shifting / cut down of cloud services Roadmap for implementation of recommended changes

🛠 Explore

- Measure Potential optimization
- Setup goals / Benchmarks Identify usage & spend anomalies
 - Compare Services & Workload placements
 - Identify alternative services
- Identify optimization levers

Implement

- Implementation of the recommendations Enable Monitoring / regular evaluation of cloud resource consumption via dashboards
- Proactively take corrective actions to manage usage

Best Practices to Optimize Cost



Revising architecture Revisiting early architectural decisions for cost efficiencies

Leading Supply chain solutions provider Cloud ? Modernize & Build Cloud strategy, Cloud based system of

Case Study

insights, Azure & Snowflake

Optimizing Costs

by over 70% and



Autoscaling Taking advantage of automation to closely match workload demand



Granular re-sizing & shutdown

Finding opportunities to shift resource SKUs or shut down resources

Horizontal-over-vertical scale

Using multiple small instances rather than fewer large instances to scale

- Rapid data growth strained their current architecture, hindering efficiency and scalability.
- Redundant & Dormant Datasets across various acquired companie 40 hours/week spent on manual tasks.
 - High maintenance efforts and costs.
- Difficulty accommodating rapidly growing data.

Solution

- Performed Data & Report Rationalization activities using proprietary utility to assess the

- Automatic resizing for workload-based optimization.
- Enhanced throughput with efficient Snowflake computation
- Reduced storage cost by approx. 68.68%, eliminated data ingestion/ETL costs, and removed VM costs.
- BI reports available 24/7

- Enabled Single Source of Truth with Data lake for downstream applications

MERCURY

- Addressed without extra cost.

Our Marguee Customers













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driving scalability using Azure and **Snowflake**



Reduced Load on source systems

PACIFIC LIFF

Server-less architecture reduced maintenance effort.

Optimized ETL runtime from 6 hours to <1 hour

redundancy and unused objects Identified and optimized workloads to be moved to cloud Implemented a 2-prong data strategy solution for inexpensive & expensive IO operations

Data lake and Snowflake storage for growing data.

- Impact
- - Reduced 40 hours/month manual work