Successful Application Modernization

CHECKLIST

Cloud adoption helps you make quicker business decisions when you take advantage of modern infrastructure and use enterprise data more effectively. You can achieve this quickly and more effectively with modernized monolithic applications.

By re-architecting monolithic applications, you can improve application scalability, availability, data discoverability and overall system portability. You'll reduce vendor lock-in, provide new flexibility to create new products and/or features with faster time to market, and reduce overall application overhead costs.

Here are the steps to successful application modernization:

1. Business Case and ROI
   a. Your business team needs to identify and quantify the cloud’s positive impact on the business in terms of:
      - The shift of capital to operational expenses.
      - Cost savings.
      - Faster speed of deployment.
      - Better elasticity, and more.

   b. TCO and business case: build a solid business case by comparing the cost of housing your applications on cloud compared to on-premises or a traditional hosting environment.

   c. Clearly defined outcomes: to measure program success accurately.

   d. Cloud center of excellence: focused on leading the organizational transformation throughout the cloud migration. Center of excellence instills best practices for infrastructure, database and tools, etc., drives change and inspires a cultural shift to innovation.

   e. Change management and communication teams: they help in seamless adoption of new technologies and processes.

Established objectives helps the team set clear expectations that can be referred to whenever decisions need to be made along your cloud assessment and adoption journey.
Infrastructure Readiness

The IT leadership team needs to develop a strategy for managing infrastructure, as this will impact the application modernization process:

- Containerization/Kubernetes.
- Cloud native.
- Serverless.
- Virtualized.
- Bare metal.

Assessment

a. Hitachi Vantara process: involves collecting and reviewing information about the applications. After a detailed analysis of data, an assessment report is discussed with your team to plan the modernization roadmap.

b. Application assessment workshop: see the details captured during our workshops, which help to better assess the applications:

![Application Assessment Diagram]

- Application Current Technology Stack
- Application Functional Use Cases
- Application Interfaces and Services
- Application Deployment Model
- Application Data Model (Logical/Physical)
- Application Test Cases, Test Plans & Code Coverages
- Functional & Non-Functional Requirements
- Pain Points

c. Application scanning: use automated tools to identify points in the architecture and data model to break a monolith up into manageable, right-sized services. This forms the base plan to modernize the application.

Data Model Readiness

The data model needs to be reviewed to prevent API magnification and potential bottlenecks in data access on a new services-based architecture.
Automation Readiness

To handle the orchestration of new services, automation needs to be reviewed and planned.

- Containerization.
- New Jenkins deployment pipelines and code promotion.
- Static code analysis and test automation.
- Artifact management, libraries and reusable code.

Application Validation Frameworks

Up to 4 lines of copy going into This step involves the automation of key aspects of the delivery pipeline:

- Unit testing.
- Integration testing.
- Various code analysis tools to ensure code quality.
- Compliance.

Logging and Monitoring

A robust log aggregation mechanism and event logging architecture provide the platform for monitoring applications and infrastructure and assuring the health and availability of the systems.

Hitachi Vantara cloud experts will work with you to figure out if you’re ready for application modernization. We’ll help drive this process with a business-driven decision framework and an actionable roadmap.

Contact us today at 1-858-769-1555
to speak to a Hitachi Vantara cloud expert and plan your successful application modernization.