HCLTech | Supercharging Progress™

ADvantage Suite

01
Introduction

Application modernization needn't be complex, costly or disruptive. Drawing from extensive experience in application services and modernization programs, HCLTech offers solutions and platforms. These aid customers in realizing the ROI of modernization by identifying relevant systems, enhancing asset value through API accessibility, automating understanding and transpilation of legacy codebases to cloud-native platforms, and managing the modernization journey with a robust organizational change management practice. HCLTech's expertise in AWS cloud migration further accelerates adoption for AWS customers.

Here is one of our many flagship solutions that aid in Application modernization initiatives:

ADvantage upgrade

ADvantage Upgrade is a unique service proposition to help customers upgrade or migrate their Java based applications to latest versions of Java runtime, middleware and .NET technology frameworks. The proposition is supported by an automation platform, which accelerate the identification, analysis, remediation of incompatibilities for the technology upgrade or migration. Advantage Upgrade helps enablement of AWS cloud migration

Features:

ADvantage Upgrade helps to make applications compatible to higher versions of application servers. It also helps in automated detection of framework changes and incompatibilities to fit the target runtime, framework and middleware versions.

List of supported archetypes across homogeneous and heterogeneous upgrade:

Homogenous Upgrade

JDK upgrade
• Java older version(JDK 5,6,7 to Java 8,11,17) upgrade

Framework upgrade
• Spring upgrade(2.x to 5.x/6.x)
• Hibernate upgrade(3.x to 6.x)

Java EE Upgrade
• Java EE(J2EE1.5) to Jakarta EE(9.x/10.x)

JDK migration
• Commercial JDK to Open JDK
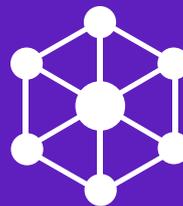
Framework migration
• Hibernate to JPA

Middleware migration
• WebSphere to Tomcat/Spring Boot/ Open Liberty
• WebLogic to Tomcat/Spring Boot/ Open Liberty
• Glassfish to Tomcat/Spring Boot/ Open Liberty

Component Migration
• SOAP to RESTful API

Heterogenous Upgrade

Below are a few distinct features:

• Analyze the application sources and dependent libraries

• Identifies exhaustive list of incompatibilities for running the application on the latest version of Java and related frameworks

• Estimates the developer's effort which is necessary to fix all instances of the issues identified

• Evaluates the complexity of different frameworks present in the source code and generates visual representations to understand the various components present in the source code.

• Modernized applications can be easily deployed to AWS Cloud

Benefits:

ADvantage Upgrade helps by leveraging new capabilities to improve performance, value delivery over experience and increasing compatibility of the application for maximum and faster Cloud Adoption. Here are a few business benefits provided by ADvantage Upgrade:
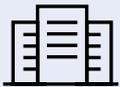
01
Eliminates end of life risks, associated security and compliance risks with predictability

02
Up 60% savings in cost and time for upgrade and migration compared to manual approach.

ADvantage Specs

ADvantage Specs accelerates reverse engineering of .NET applications to extract functional and technical specifications in non-technical formats. It comes very handy for preparation of business requirements for any modernization / transformation of legacy applications, by significantly reducing the effort for the analysis and improving the accuracy of the specifications. The output of ADvantage Specs platform includes:

Domain Data Dictionaries	Business Rules in Gherkin format	User Interface Mappings	Data layer/ Interface Mappings	Call flows & UML /Sequence Diagrams

Benefits:

- Generates human & machine-readable specifications from source code

- Accelerates the process of extracting functional specifications by business analysts

- Significantly reduces dependency on developers for system documentation

- Enables test scripts generation in line with BDD & TDD

- Paving ways to generate application code from specifications

ADvantage Cloud

HCLTech's Platform for Automated Mass Application Migration to AWS Cloud. It caters to automated Rehost, Re-factor and Re-Platform treatments. ADvantage Cloud accelerates modernization and migration of an on-premises JAVA & .Net applications to Cloud Native Architecture & Containers, leveraging the native services of the AWS cloud services like Cloudwatch, AWS RDS, Elastic Cache,SQS, Amazon MQ, S3, Elastic Search, SNS, Elasticbeanstalk, ECS AWS dev ops.

Features:

ADvantage Cloud is technology agnostic, cloud platform agnostic, provides Automated Rehost, Refactor and Remediation under one roof along with security analysis and Remediation with CI/CD.

Architecture Dependency Discovery		Helps in Automated Dependency and incompatibility discovery, Analysis and Remediation Recommendations
Provisioning		Helps automated provisioning of resources required for each application.
Automation		Helps automate application **Rehost, Refactor, Re-platform, Containerization on AWS environment**
Reports		Generates detailed report on code that are refactored and required manual interventions
Deployment		Helps deploy applications on provisioned resources with CI/CD integration
Single dashboard		To manage and monitor application migration and deployment

Benefits:

ADvantage Cloud helps achieve the true and complete benefits of AWS cloud migration such as elasticity, auto-scaling, reliability, load balancing, disaster recovery, due to **integration of cloud native services** offered by the Cloud providers, through automated discovery and code remediation. It is a low-risk approach due to low dependency on SMEs and manpower; provides improved user experience and enables better cloud ROI through enhanced savings. Below are a few business benefits that ADvantage Cloud Provides:
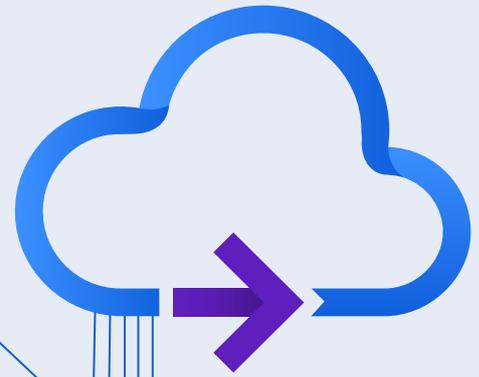
Significant savings to the extent of 70 to 80% in analysis, design and migration phases

Enhanced Cloud ROI- Delivers up to ~60% of cost savings on infrastructure and operations

Low dependency on technical and functional SMEs

Technology agnostic and Cloud Service Provider agnostic

**No functional or configuration loss – domain model & business logic remains same

Customer references

01

For a Swedish Multinational Telecom Company, with an objective of 80% of applications to be migrated to AWS cloud , HCLTech leveraged Advantage Cloud to accelerate application migration, automation of legacy components mapping to cloud native services, devsecops adoption resulted in 50% reduction in application migration Effort, time and cost.

02

For an American multi-national fast food restaurant franchise, business challenge was to create functional specification of one of their core business application with 300+ forms on legacy .NET. With addressing issues of lack of documentation, impending audit, risk mitigation, HCLTech leveraged Advantage Specs to create functional and technical specification, domain data dictionary resulting in 50% reduction in effort and time for application documentation.

03

For a Leading Producer and Distributor of Beverages in North America, technology standardisation/remediation of old legacy stack before moving to cloud was customer requirement, HCLTech leveraged Advantage Upgrade tool which accelerated automated remediation of JDK 1.7 to 1.8, Hibernate 3.x to 5.x upgrade & Spring 2.0 to 5.0 upgrade and subsequent migration to AWS cloud

HCLTech | Supercharging Progress™

hcltech.com

HCLTech is a global technology company, home to more than 221,000 people across 60 countries, delivering industry-leading capabilities centered around digital, engineering, cloud and AI, powered by a broad portfolio of technology services and products. We work with clients across all major verticals, providing industry solutions for Financial Services, Manufacturing, Life Sciences and Healthcare, Technology and Services, Telecom and Media, Retail and CPG, and Public Services. Consolidated revenues as of 12 months ending September 2023 totaled $12.9 billion. To learn how we can supercharge progress for you, visit hcltech.com.