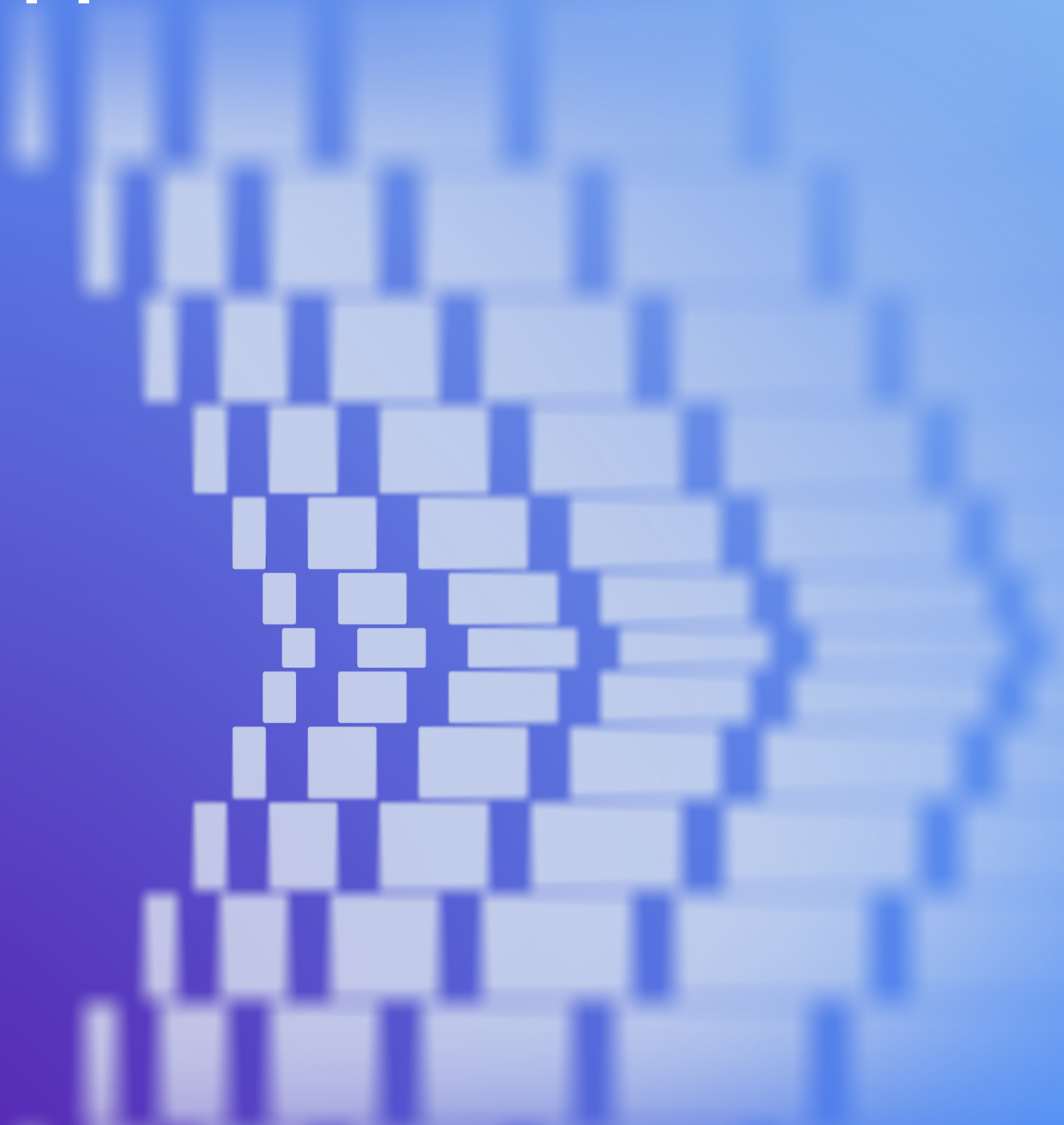


Automation helps modernize business applications with ease



Introduction

Application modernization, an almost unavoidable process for many companies, can be complex, expensive and intrusive. The challenges it brings may differ according to the size, type and complexity of the applications, as well as the business needs and goals of the client. However, HCLTech, with its experience in managing and running application services and modernization programs, can make this transition seamless.

HCLTech has crafted solutions and platforms that help customers to realize the ROI of application modernization by identifying the relevant systems to modernize. HCLTech also helps to enhance the value of customer assets by making them available for consumption via APIs to create better experiences. Automation helps to gain a functional and technical understanding of the system, transpile legacy codebases to cloud-native platforms and architectures and manage the entire modernization journey through robust change management practices.

HCLTech's flagship solutions that aid application modernization are:

1. Prizm

HCLTech's proprietary tool, Prizm enables application assessment for technology, architecture and cloud-based modernization. HCLTech has been leveraging this tool for over a decade and has successfully served hundreds of customers across the globe spanning different domains.

Features

Prizm can integrate with any existing Auto Discovery, App Monitoring, CMDB, Reporting tools and SharePoint to build a centralized IT intelligence repository. The Prizm analysis engine enables and accelerates the processing of the data gathered and provides decisive intelligence for digital transformation projects.

- Modernization, migration opportunities and strategies
- Applications for cloud migration assessment and planning
- Cost out opportunities and strategy
- EOL, standardization assessment
- Merge IT strategy and planning
- Decommissioning, archival assessment and strategy

Benefits

Organizations leverage Prizm to map the value chain, manage IT assets' health, define dispositions, move group planning and impact analysis of each asset for making informed modernization decisions. Business benefits provided by Prizm include:

- Single version of truth for the IT portfolio
- Provide visibility across technology architecture types and layers
- A comprehensive application portfolio management tool focused on continuous portfolio improvements and digital transformation projects
- Available as Software as a Service
- Enhances near real-time application portfolio visibility by eliminating person dependency

Success Stories

- For a leading automotive components original equipment manufacturer, HCLTech executed a rationalization program for a portfolio of 545 applications to improve business operations/optimization opportunity scenarios. Prizm helped the customer attain cost savings.
- For a leading French multinational integrated oil, gas and energy company, HCLTech helped to assess over 1000 applications spread across multiple business domains. HCLTech provided a 360-degree view of application health analysis with respect to modernization/technology standardization, EOL risk assessments and portfolio rationalization opportunities.

2. ATMA

HCLTech's home-grown solution, 'Automated Technology Modernization Accelerator (ATMA),' helps to accelerate the modernization of mainframe applications to modern architecture and platforms. ATMA supports the modernization of multiple legacy technologies like Cobol, Natural, Visual Basic, Classic ASP, VB.Net, JCL, ASP .Net and Accent/R, to name a few.

Features

ATMA helps modernize legacy applications to run on modern technology platforms such as Java or .NET by automated code conversion. ATMA not only translates the code but transforms the application to adapt to modern architecture/technology frameworks. It helps to accelerate various phases of application modernization projects, thus reducing human effort.

- Architectural transformation: Transforms monolithic and client-server architecture to multi-tier, modular architecture
- UI/UX: Facilitates user experience transformation and digitalization
- Delivery automation: Promotes a high degree of automation at each step of transformation for legacy application modernization
- Customizable: ATMA is extendible to support the modernization of more legacy platforms and customizable to adapt to customers' technology blueprints
- Cloud migration: ATMA enables cloud migration

Benefits

ATMA is a flexible, scalable, low cost and low-risk solution that delivers significant savings.

- Flexible and scalable: Multi-tier architecture on a modern platform, scalable, extendible and high performing
- Lower cost: 40 -60% savings in cost and time for modernization compared to re-engineering
- Reduced hardware costs: 40-70% reduction in hardware & licensing costs
- Lower risk: Low dependency on technical and functional SMEs
- Improved user experience - No retraining of business users is needed

Success Stories

- For a leading Insurance provider in Europe, HCLTech enabled the modernization of core PA systems and several other satellite systems built on legacy Visual Basic. This resulted in improved user experience, reduced time to market and created a multi-tier architecture that was extendable, scalable and easy to maintain.
- For a major American social care provider, HCLTech enabled the modernization of a 20-year-old mainframe-based legacy child support system. This created a modernized user interface to improve usability and accessibility. It also helped to transform business processes, enhance maintenance and ensure a 50% reduction in modernization time and effort.

3. ADvantage Suite

a. ADvantage Upgrade

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

Features

ADvantage Upgrade makes applications compatible with higher versions of application servers. It also helps automated detection of framework changes and incompatibilities to fit the target runtime, framework and middleware versions. The list of supported archetypes includes:

- Java runtime upgrade
- EJB/MDB to Spring Conversion
- Spring version upgrade
- Hibernate to JPA migration
- WAS to Spring Boot migration
- SOAP to REST Conversion blueprints
- Cloud Migration: ATMA enables cloud migration

Some distinct features are:

- Analysis of application sources and dependent libraries
- Identification of incompatibilities for running the application on the latest version of Java
- Estimation of developer effort necessary to fix all instances of the issues identified
- Evaluation of complexity of the different frameworks present in the source code, generation of visual representations to understand the various components present in the source code.
- Remediation of more than 20% incompatibility types through automated code corrections

Benefits

ADvantage Upgrade leverages new capabilities to improve performance, delivers value and increase the compatibility of the application for maximum and faster cloud adoption.

- Elimination of end-of-life risks, associated security and compliance risks
- Up to 70% savings in cost and time for upgrade and migration

b. ADvantage Specs

ADvantage Specs accelerates reverse engineering of .NET applications to extract functional and technical specifications in non-technical formats. It enables the 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 the following:

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

Benefits

- Generates human and machine-readable specifications from source code
- Accelerates the process of extracting functional specifications
- Significantly reduces dependency on developers for system documentation
- Enables test scripts generation in line with behavior-driven development (BDD) and Test-driven development (TDD)
- Helps generate application code from specifications in different ways

c. ADvantage Cloud

This is HCLTech's platform for Automated Mass Application Migration to Cloud. It caters to automated Rehost, Re-factor and Re-Platform treatments. ADvantage Cloud accelerates the modernization and migration of an on-premises application to cloud-native architecture and containers, leveraging the native services of the cloud providers.

Features

- ADvantage Cloud is technology agnostic and cloud platform agnostic
- Architecture Dependency Discovery: Aids automated dependency and incompatibility discovery, analysis and remediation recommendations
- Automation: Helps automate application Rehost, Refactor, Re-platform, Containerization
- Reports: Generates detailed reports on codes that are refactored and require 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 full benefits of cloud migration, such as elasticity, auto-scaling, reliability, load balancing and disaster recovery, owing to the integration of cloud-native services via automated discovery and code remediation. It is a low-risk approach with low dependency on SMEs and human resources. The solution provides an improved user experience and enables better cloud ROI through enhanced savings.

- Significant savings -up to 70 to 80% in analysis, design and migration phases
- Enhanced cloud ROI- up to ~60% 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 and business logic remain the same

Success Stories

- For a Swedish multinational telecom company, HCLTech leveraged Advantage Cloud to accelerate application migration, automating legacy components mapping to cloud-native services and devsecops adoption. The customer migrated 80% of applications to the cloud and benefitted from a 50% reduction in application migration effort, time and cost.
- An American multinational fast food restaurant franchise was challenged to create a functional specification of one of their core business application and 300+ forms on the legacy .NET. HCLTech leveraged Advantage Specs to create a functional and technical specification and a domain data dictionary by addressing issues like lack of documentation, impending audit and risk mitigation. This helped reduce the effort and time for application documentation by 50%.
- A leading producer and beverage distributor in North America was challenged with technology standardization/remediation of the legacy stack before moving to the cloud. HCLTech leveraged Advantage Upgrade for accelerated automated remediation of JDK 1.7 to 1.8, Hibernate 3. x to 5. x upgrade and Spring 2.0 to 5.0 upgrade and subsequent migration to the cloud.



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HCLTech is a global technology company, home to 211,000+ people across 52 countries, delivering industry-leading capabilities centered around Digital, Engineering and Cloud powered by a broad portfolio of technology services and software. The company generated consolidated revenues of \$11.79 billion over the 12 months ended June 30, 2022. To learn how we can supercharge progress for you, visit hcltech.com.

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