

Cognizant®

CLOUD ACCELERATION PLATFORM

It provides one click automation of cloud readiness assessment and automates steps for transformation and deployment. It provides in-depth inventory analysis of mainframe code repository. It also provides Cloud readiness dashboard of applications.

Your Cloud Journey with Cognizant Cloud Acceleration Platform

AUTOMATE AND SCALE

Cognizant Cloud Acceleration Platform accelerates cloud readiness assessment, application cloud transformation, greenfield microservices development, and deployment of applications to cloud.

Simplified and Automated Solutions



Provides teams with the best starting point for their cloud journey to draw value from each step as they progress



Semi-automated process steps across the different phases of cloud journey starting from reverse engineering of legacy applications to running applications on cloud



Knowledge gained during transformation specific to target cloud platforms is shared across teams

Platform Offerings



Greenfield Acceleration

Accelerate Microservices Development

- ✓ Automated assessment of code created using tools like Spring Initializr, Micronaut, JHipster
- ✓ Identification of microservices antipatterns
- ✓ Greenfield recipes to add code snippets / components specific to cloud patterns and best practices

Cloud Suitability Analysis

Reduces 90% of manual assessment effort and brings in accuracy.

Cloud Readiness Assessment

Automated cloud readiness assessment for Java, .NET & PHP applications

- ✓ Targeted for specific platforms
- ✓ Tech Stack Suitability
- ✓ Migration Complexity
- ✓ 4R Migration Strategy recommendation
- ✓ Antipattern details with location
- ✓ Detailed recommendations
- ✓ References for more readings

Automated assessment for migration between cloud platforms

- ✓ Automated assessment for PCF to OpenShift
- ✓ Impediments to be fixed before moving to other cloud
- ✓ Antipattern details with location
- ✓ Detailed recommendations

Cognizant Cloud Acceleration Platform as a unified platform

Bring your own Platform plugin

- ✓ Extends Platform as one unified Platform for greenfield and transformation
- ✓ Register and run plugins in the Platform as a separate blueprint or as a custom recipe
- ✓ The Platform capabilities can be leveraged to ship an extended feature quickly



Application Cloud Transformation

Transforms targeted areas of source code into cloud native code using Transformation Recipes, Remediation Templates and Service Templates.

Remediation Templates

- ✓ Allows to define reusable templates to fix antipatterns
- ✓ One or more actions are combined to form templates
- ✓ Actions apply parameterized changes to the source code
- ✓ Custom logic can be added to resolve antipatterns

Transformation Recipes

- ✓ Automated framework level changes
- ✓ Available out of the box
- ✓ Each recipe attacks a specific problem
(More details in page 3)

Service Templates

- ✓ Allows to define reusable templates for injecting code
- ✓ New file with placeholders
- ✓ Build configurations to maven/gradle projects
- ✓ Configurations to web.xml

Continuous Integration & Deployment Pipelines

- ✓ Automates creation of CI/CD pipelines using user provided Jenkins templates
- ✓ Target platform could be PCF, AWS, Azure or any other

Configurable Migration Settings

- ✓ Configure transformation tools
- ✓ Add/edit assessment rules
- ✓ Train the Platform to identify user-defined antipatterns
- ✓ Add CI/CD templates
- ✓ Add services templates
- ✓ View remediation templates
- ✓ Register plugins

Transformation Recipes

Cognizant Cloud Acceleration Platform offers out-of-the-box Transformation Recipes to transform application source code into cloud native code at a framework level targeting a specific problem area. Suitable recipes are suggested based on the application analysis. Recommendations for further manual actions on the transformed code are provided. Example: When applying the 'Gradlize Maven App' recipe, the maven plugins will not be migrated to their gradle equivalents. In such case, the Platform provides the list of maven plugins available and instructs the user to manually identify and add gradle equivalents.

For Java

Bootify Struts App	Gradlize Maven App	Spring MVC to Spring Boot	Websphere to TomEE Buildpack	Websphere to TomEE Docker
Apache CXF to Spring Boot	Dockerize Application	EJB 2.x to 3.x	Jersey to Spring Boot	SOAP(JAXWS) to REST(Spring Boot)
JMS to RabbitMQ broker	Weblogic to Tomee Buildpack	Jboss to Tomcat	Ibatis (Mybatis) to Spring JDBC Template	JMS to AMQP Migration for Spring Integration
Message Driven Bean to Spring POJO	Spring Bootify Ejb Session Beans			

For .NET

Dockerize Classic ASP	Dockerize VB.NET	Dockerize C#
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Customer Journey

Diversified Multinational Mass Media & Entertainment Conglomerate is into digital transformation journey for superior customer experience.

● Waves 1 and 2 Delivered

● 20+ Apps moved to production

Target

Spring Boot, AMQP, JDK -1.8, RabbitMQ, RedisCache, Tomcat, Docker, AWS, Azure

- ✓ Assessment engine integrated into CI Pipelines for design deviations
- ✓ Automatic antipattern code review for successful CD
- ✓ Transformation Recipes applied on iBatis, JAXWS, SpringMVC and JMS
- ✓ Remediation Template actions were configured and applied for replacing logger and externalizing configurations

90% assessment time reduced

30% migration effort saved



Cloud Transformation Approach with Platform



Collect Transformation Requirements

- ✔ Series of discussions to identify transformation requirements and preferences



Run Automated Assessment in the Platform

The report provides:

- ✔ Tech stack suitability
- ✔ Migration complexity
- ✔ Cloud Antipattern Details / Impediments for target cloud
- ✔ Migration Strategy Recommendation



Review and strategize transformation approach

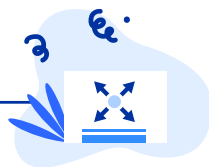
Discovery and Framing Sessions to identify:

- ✔ Remediation Templates
- ✔ Transformation Recipes
- ✔ Service Templates
- ✔ CI/CD Templates



Run Automated Transformation in Platform

- ✔ Establish Application Migration Cookbook
- ✔ Modify existing recipes to customer context / add new recipes (Note: The Platform product team has to be involved to modify or add new recipes)
- ✔ Configure and apply Remediation Templates, Service Templates, and CI/CD Templates
- ✔ Updated source code will be available on a new Git branch or local file system in case of Platform local



Deploy Successfully

- ✔ Application, if cloud ready, will be deployed to target cloud platform
- ✔ Further manual changes may be required
- ✔ The CI/CD pipelines created by Platform can be reused for further iterations



Run Platform plugins

- ✔ Bring your own plugins or run plugins provided by Platform
- ✔ Accelerate activities across your transformation journey

Cognizant Cloud Acceleration Platform-ZDLC

ZDLC offers Business Rule Extraction (BRE) and Reverse-Engineering capabilities to generate precise documentation of the AS-IS system combined with graphical flow diagrams and comprehensive reports to help user get an insight into the Application.

ZDLC allows analysts and developers to focus on understanding and optimizing the existing logic for migration to the new platform. This reduces costs, timelines and risks associated with any legacy modernization initiative.

Automated Business Rule Extraction

The ZDLC Business Rule Extraction solution reverse engineers legacy applications from a source inventory. By using a domain-centric, data-first approach to trace the data inputs, outputs and intermediate transformation logic across screen and job transactions, ZDLC automates the rules extraction process and mapping to functional areas. ZDLC creates a number of views and reports that make the legacy application easy to understand and analyze from a business viewpoint

Data Lineage Accelerator

Intelligently extracts the system information such as metadata, data definition and data relationships and illustrate all into a comprehensive and interactive hierarchical model. Enable users to enrich, annotate and comment on the reverse engineered metadata, which can be shared across multiple users to accelerate analysis process through reliable knowledge sharing.

Effort Saving

Automated Business Rule Extraction (**40%**)

Data Lineage Acceleration (**70-80%**)



Value Adds

- ✓ Clear Traceability
- ✓ Acceleration & Accuracy
- ✓ Phase-wise Execution
- ✓ Ease of Use & Effort reduction
- ✓ Precision & Completeness
- ✓ Flexibility
- ✓ Incremental & Iterative documentation
- ✓ Reduced dependency on application SME

Technologies Supported



Database

- ✓ Oracle PLSQL
- ✓ TSQL
- ✓ IBMDB2



Legacy

- ✓ IBM Cobol
- ✓ CICS
- ✓ JCL



Integration & Reporting

- ✓ IBM DataStage
- ✓ Informatica Power Center
- ✓ SSIS
- ✓ SAS



Metadata Management

- ✓ Informatica Metadata manager