

INFOSYS LOW-CODE NO-CODE APPLICATION TESTING SERVICES

The need for superior user experience and the urgency to bridge the gap between business users and technical architects is driving enterprises towards the adoption of Low-code No-code (LCNC) methodologies. The technology landscape is ever-changing, and it is a challenge to find the right domain expertise. This in turn has accelerated the adoption of Low-code No-code platforms.

Organizations are choosing LCNC platforms as the fastest tool for application development. However, these platforms have challenges related to extensibility, performance, and maintainability. LCNC applications are mostly omnichannel involving business process flows and an underlying layered architecture accompanied by one-click deployments. These characteristics of low code applications necessitate functional and non-functional validation of persona-based business process

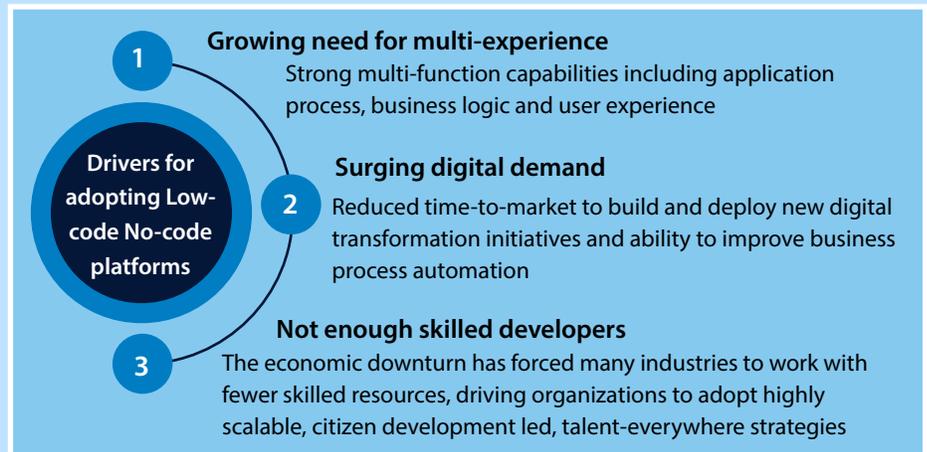


Figure 1 – Drivers for adoption of Low-code No-code platforms

flows along with universal test automation frameworks across the technology stack and multiple channels. Infosys Low-code No-code application testing service lowers the

risk of failure for these application releases ensuring quality, resilience, and speed by addressing challenges related to extensibility, performance, and maintainability.

The Infosys Solution

Infosys Low-code No-code application testing services are built to suit specific client needs at every stage of maturity in the LCNC adoption journey. With a differentiated approach in test automation that identifies risks upfront and addresses them through low code quality assurance (QA) solutions, these testing services help achieve faster, reliable, and scalable application releases.

Infosys Low-code No-code application testing services include the following services for various levels of maturity in LCNC adoption:

1. Risk assessment

During the initial phases of LCNC adoption, it is difficult to analyze the level of testing required. Therefore, the risk involved in regulatory compliance, data security, user experience, and scalability of the applications becomes more challenging. The Infosys LCNC application testing service includes the following solutions for risk assessment:

- Risk scoring based on industry and domain specific federal regulations
- Risk scoring and automated scan of multi-channel applications with respect to compliance with accessibility standards
- Automated generation of risk threat matrix on adherence to cyber security standards
- Automated identification of types of testing based on risk scoring for legacy to LCNC migration and greenfield implementations

2. Pre-built assessments

Organizations go through evaluation cycles to identify the right LCNC platform to suit their needs. Having a point of view on risks associated with specific technology stacks, templates, components, or methodologies used in the platforms can help build easily maintainable and scalable LCNC applications. This service includes pre-built assessments for the most popular LCNC platform components that help:

- Early risk assessment activity to enable

identification of the level of testing needed for application development

- Deploy the right level of skilled developers and testers in agile pods for sprints that involve high-risk LCNC components identified through pre-built assessments

3. Automation frameworks

Organizations that adopt LCNC as their platform of choice are looking for agility and speed in their application development roadmap. Traditional testing cycles are perceived to slow down the release cycles and testing everything is not a valid strategy anymore. This testing service includes in-sprint automation frameworks and fit-for-purpose testing solutions specifically designed to address challenges with in-built characteristics of LCNC applications. It includes:

- A repository of over 1 million reusable test cases across industry domains
- Multi-faceted low code test automation framework for UI, API, and data layers across multiple channels

- Ready-to-use automated tests for visual design validation, accessibility testing, compliance validation of industry standards such as Electronic Data Interchange (EDI), Fast Healthcare Interoperability Resources (FHIR), and open banking
- End-to-end test automation using Infosys quality engineering platform with in-built AI-led QA capabilities
- Open-source based automation frameworks providing plug-and-play integration with LCNC platforms
- RPA bot factory for enabling in-sprint automation

4. Resilience and scalability validation

Organizations that have already adopted and travelled some distance on the LCNC journey need to address challenges related to maintainability, extensibility, and scalability of applications. They must also adapt to frequent changes in the technology landscape with minimal disruption to business. This service includes solutions listed below to validate the resilience and scalability of LCNC applications:

- Open-source based performance testing frameworks allowing easy plug-and-play integration with LCNC platforms
- Microservices performance testing solution catering to cloud-native LCNC platform implementations
- Script convertor solution to easily port performance testing scripts across market tools and open-source frameworks
- Service virtualization framework to reduce constraints and dependency on development and test environments
- Cloud-agnostic framework to conduct cloud-readiness and non-functional validation for cloud platform build using open-source technologies and custom scripting

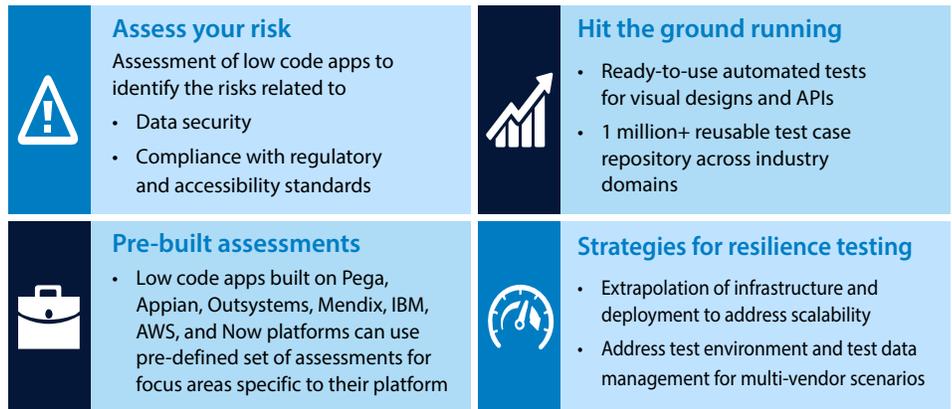


Figure 2 - Infosys services for validating LCNC applications

Benefits

Leveraging Infosys LCNC application testing services for LCNC-based application deployment provides the following benefits:

- Superior quality of LCNC applications through end-to-end validation of business processes and integration using business rules map and checklist, impact analysis-based regression, and upstream and downstream integration validation
- Automated validation for compliance with domain-specific regulations
- Detailed functional and non-functional testing of business process flow through domain specific BOT store
- Over one million reusable test cases across domains
- Focus on resilience through best-in-class frameworks for data security testing, performance testing, cloud, and infrastructure validation
- 3 times faster test cycles with multi-facet test automation and end-to-end automation using Infosys Live QE platform
- Ready-to-use plug-and-play automation frameworks for extension of LCNC platform's native BDD test automation frameworks ensuring 35% cost optimization overall

The Infosys Advantage

As an end-to-end Low-code No-code application testing partner, Infosys helps organizations conduct relevant testing to achieve faster time to market. We achieve this by leveraging proven expertise and experience in LCNC migrations and greenfield implementation validation. With the help of proprietary frameworks to kick-start testing, a large repository of test scenarios, and automated testing solutions, Infosys is able to drive process optimization and operational excellence with cost optimization and trusted quality assurance.

Success Stories

50% reduction in cost and 85% reduction in regression automation for a leading financial services client: A multi-faceted test automation covering about 400 end-to-end test cases for 15 applications across resulted in reduced cycle time and cost. The solution covered web, mobile, and tablet UI channels, point of sale (POS) terminals, API middleware including PDF comparison, and virtual printing of POS refund receipts.

Overall release time reduced by 58% for one of UK's largest banks: The client's transformation program for digital onboarding included a daily health check of 10 highly integrated applications. Infosys deployed a test automation framework by extending the LCNC platform's native behavior driven development automation framework. This low code and multi-faceted test automation framework helped achieve full test coverage for the client and reduced the overall cycle time.

For more information, contact askus@infosys.com



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