


The Strategic Role of Low-Code Application Platforms in the Future of Software Development




Executive Summary



In today's rapidly evolving technology-driven world, having effective and efficient software development tools and platforms has become critical. Yet, in most cases, businesses encounter various challenges, such as task backlogs, lack of resources, and talent gaps, which slow down and negatively impact the entire development process. Low-code application platforms (LCAPs) have been an indispensable tool for many businesses for almost two decades, thanks to their intuitive drag-and-drop interface and user-friendly tools. LCAPs have witnessed significant recognition and adoption over the years, owing to their ability to help businesses streamline processes, minimize costs, and radically change the development process.

LCAPs have evolved tremendously to accommodate the increasing demand for accelerated digital transformation and agile software development. With more businesses progressively embracing LCAPs, it is crucial to understand the challenges associated with their adoption. This whitepaper delves into the primary challenges most organizations face, the critical factors to consider when selecting the right platform, and how to make the most of this technology in the coming years.

Understanding the increasing need for LCAPs



For many years, organizations faced a binary choice in their approach to application development: buy pre-built software from third-party vendors or build it from the bottom up with skilled programmers and coders. However, the need for accelerated digital transformation in recent years has led to an increasing demand for low-code platforms. In fact, according to research by Gartner, **70% of newly developed enterprise apps** would use low-code or no-code technologies by 2025, up from 25% in 2020. This is because low-code solutions have the potential to **slash enterprise application development time** by as much as 60%. Gartner also projects that by 2023, **expenditure on software technologies** enabling hyperautomation will soar to \$720 billion. A segment of this investment will be allocated towards low-code development technologies such as Low-code Application Platforms (LCAP), Integration Platform as a Service (iPaaS), Robotic Process Automation (RPA), Citizen Automation Development Platforms (CADP), and Multi-experience Development Platforms (MXDP).

LCAPs have played a key role in digital transformation initiatives worldwide, addressing a wide range of challenges inherent in traditional application development. LCAPs empower businesses to improve the user experience through intuitive and visually driven interfaces, providing a transformational

alternative to the often challenging and lengthy conventional approaches. With LCAPs, organizations can speed up their application development process by empowering both technical IT experts and non-technical “citizen developers”. Rapid prototyping, Minimum Viable Product (MVP) development, and Business Process Automation (BPA) all help minimize time-to-market and overall costs. Lastly, LCAP’s collaborative capability facilitates and improves interaction between business and IT teams, while its flexibility and scalability assure responsiveness to changing business needs.

LCAPs also show a clear ROI via shorter development cycles, cost savings, and improved business outcomes. LCAPs are a comprehensive and efficient alternative for modern software development due to their ease of interface with third-party systems, compatibility with existing infrastructure, and seamless integration of DevOps, mobility, and AI capabilities.

Integrating LCAPs with cutting-edge methodologies like Process Mining and Robotic Process Automation (RPA) represents a powerful synergy driving digital transformation in modern enterprises. Together, LCAPs, Process Mining, and RPA offer a holistic approach to modern software development and process optimization, positioning enterprises to thrive in today’s rapidly evolving digital landscape.

Suggested Read: [Persistent’s Digital Front Door solution with OutSystems](#)

Integrating Process Mining and Robotic Process Automation with LCAPs

Process Mining is a cutting-edge methodology to study, optimize, and track processes. It entails analyzing event logs from multiple applications in real time to acquire real-time insights into business processes, visualizing them, and suggesting opportunities for improvement. Robotic Process Automation (RPA), on the other hand, uses software robots to automate repetitive processes, increasing productivity and freeing human resources to focus on more complicated activities.

LCAPs serve as a unified platform, enabling businesses to construct efficient and agile applications by merging Process Mining insights and RPA automation capabilities. Businesses can use LCAPs to swiftly build apps that solve process inefficiencies identified by Process Mining and iteratively improve RPA functionality in an agile manner. The adaptability of LCAPs allows for modifications detected through Process Mining or increasing RPA requirements, ensuring that systems stay adaptive and successful over time.



LCAPs are witnessing diverse, specialized use cases

The global market for LCAPs is expected to reach \$187.0 billion in revenue by 2030, up from \$10.3 billion in 2019, with a CAGR of 31.1% from 2020 to 2030. This demonstrates how LCAPs are gaining traction globally, with specialized and purpose-built solutions developing not only as standalone platforms but also

in sectors like SaaS, eCommerce, mobile, Business Intelligence (BI), and IT service management. The variety of LCAPs is spreading across multiple domains, indicating their versatility and popularity in a variety of businesses.



Rapid Application Development (RAD)

Today's businesses must respond rapidly to changing customer needs, making Rapid Application Development crucial to offering exceptional customer service. LCAPs have proved critical in such scenarios. They allow developers to create applications quickly and with little to no manual coding. Pre-built components, visual development tools, and drag-and-drop interfaces all contribute to the growing popularity of rapid application development.



Business Process Automation (BPA)

With automation becoming prevalent, businesses are increasingly focusing on LCAPs to streamline workflows, reduce manual intervention, and optimize their overall operational efficiency. LCAPs enable the visual modeling of automated process design and implementation, thereby facilitating the automation of repetitive tasks, productivity enhancement, and operational consistency for businesses.



Citizen Development

Citizen development is a unique and empowering use case of LCAPs, enabling non-technical users, or "citizen developers," to take part in the application development process. LCAPs empower users with limited coding knowledge to construct and modify applications through their intuitive interfaces. The democratization of development facilitates coordination between IT and business teams, thereby accelerating the delivery of applications that are customized for the unique requirements of each business.

How do you know which low-code platform is the right one for you?

Choosing the most suitable low-code platform development approach necessitates a careful evaluation of numerous critical factors. To begin with, assessing your business requirements and goals is essential to align the platform with your strategic objectives. In the selection phase, it is crucial to understand your business's technical capabilities and constraints, as this influences how quickly your development team can use and integrate the chosen platform into existing workflows.

But more importantly, the security and compliance standards offered by the platform must be your top considerations. To protect sensitive information and guarantee adherence to regulations specific to the industry, it is important to assess the platform's security protocols. Robust security features will go a long way

in protecting your assets and developing confidence among stakeholders.

Additionally, future scalability and flexibility in requirements must be considered. As businesses scale, the platform should be able to support the increasing workloads and demands. Scalability ensures that the platform can handle growing workloads and additional functionalities, and flexibility enables quick adaptability to changing business requirements. This foresight helps in developing a long-term investment that can adapt to the ever-changing nature of your business environment.

Alternatively, the best way forward is to partner with experts who understand the nuances of the technology, have extensive industry experience, and can help you meet your customer demands.

Suggested Read: [7 Things to Consider while Selecting Low-Code or No-Code Platform for Unique Business Needs](#)

Persistent's role in democratizing low-code platforms

With over 17 years of experience in developing apps using low-code platforms, Persistent has helped many businesses embrace LCAPs from the initial stages of choosing the right platform for their needs. With a strong foundation in product engineering, Persistent actively **collaborates on low-code projects** with its engineering teams and has delivered over a hundred low-code apps over the years.

Our best-in-class techniques, accelerators, frameworks, and governance capabilities, coupled with our modern design, enable collaborative development with an easy-to-use user interface, achieving a 60% faster time-to-market than traditional coding. Our technology-

agnostic solutions and accelerators encourage citizen development by enabling the creation of enterprise-grade applications with AI-augmented development in a highly secure cloud environment with cutting-edge security features. This enables businesses to develop with smaller teams, minimizing the dependency on specific technical expertise. Our solutions, which include rapid application development (RAD), legacy application modernization, and multi-experience development, empower businesses to shorten time-to-market, improve performance and flexibility, and enable the development of a wide range of applications without requiring a large team of experts.

From digital banking in the box to insurance and claims management, or Digital Front Door in Healthcare and Lifesciences to GenAI-based hyperautomation solutions,

Persistent has developed various applications completely on low-code platforms.

Conclusion

The need to develop applications at the speed of business will only rise in the coming years, and low-code platforms will become mainstream and more advanced than ever. Gartner anticipates a substantial integration of low-code technology in **70% of new business applications by 2025**, highlighting the undeniable role of LCAPs as catalysts for faster and more effective innovation. The potential for significant advancements in LCAP becomes apparent as organizations increasingly adopt cloud-

based solutions, harness the capabilities of Artificial Intelligence (AI), specifically Generative AI (GenAI) and Machine Learning (ML), and explore novel applications across various industries. The ongoing effort to shape future applications in a more agile and accessible manner adds an element of excitement to this evolving landscape. With GenAI becoming popular, Persistent is making headway with its own GenAI-based hyperautomation framework, AssistX.

Connect with us today to learn how you can leverage Persistent's experience and expertise in low-code platforms to gain a competitive advantage.

About Persistent

With over 23,000 employees located in 21 countries, Persistent Systems (BSE & NSE: PERSISTENT) is a global services and solutions company delivering Digital Engineering and Enterprise Modernization. We work with the industry leaders including 14 of the 30 most innovative companies as identified by BCG, 8 of the top 10 largest banks in the US and India, and numerous innovators across the healthcare and software ecosystems. As a participant of the United Nations Global Compact, Persistent is committed to aligning strategies and operations with universal principles on human rights, labour, environment, and anti-corruption, as well as take actions that advance societal goals.

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