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Magic Quadrant for Enterprise Low-Code Application Platforms

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Software engineering teams are steadily transitioning from traditional application stacks to enterprise low-code application platforms to develop and maintain mission-critical applications. Use this research to compare LCAP vendors and find the best fit for your organization's developers.

Strategic Planning Assumptions

By 2028, 60% of software development organizations will use enterprise LCAPs as their main internal developer platform, up from 10% in 2024.

By 2029, enterprise LCAPs will be used for mission-critical application development in 80% of businesses globally, up from 15% in 2024.

Market Definition/Description

Gartner defines enterprise low-code application platforms (LCAPs) as platforms for accelerated development and maintenance of applications, using model-driven tools for the entire application's technology stack, generative AI and prebuilt component catalogs. Enterprise LCAPs target software engineering teams responsible for custom application development and maintenance. Enterprise LCAP features include support for the collaborative development of all application components; runtime environments for high performance, availability and scalability of applications; application deployment and monitoring with detailed usage insights. Enterprise LCAP platforms feature governance controls and success management through self-service capabilities and APIs, developer documentation and training, and service-level agreements for platform operations.

Enterprise LCAPs provide the foundation for developing a wide range of application types and application components, including complex front ends, business process automation and distributed data sources.

The most popular use cases include:

- **Line-of-business software development for both back- and front-office applications.** Enterprise LCAPs have evolved to the level of maturity where they are able to scale from small

businesses to global enterprises and implement almost any business use case.

- **Modernization and augmentation of legacy business applications**. The replacement of legacy applications or extension of their functionality is usually an expensive, lengthy and risky undertaking. Enterprise LCAPs aim to accelerate the delivery of new implementation and provide improved controls for the costs and risks associated with new development.

- **Development of applications to support internal company processes and workspace automation**. Enterprise LCAPs have emerged as one of the key factors behind the success of hyperautomation initiatives.

Must-Have Capabilities

At a minimum, an enterprise LCAP must:

- Include low-code capabilities to develop a complete application consisting of user interfaces for web and mobile channels, and business logic.

- Support complex data structures with both internal and external data sources.

- Support a model-driven and visual programming approach, and extensibility through prebuilt component catalogs, scripting and traditional code-based software development kits (SDKs).

- Run applications developed with the enterprise LCAP tooling.

Standard Capabilities

A standard enterprise LCAP should provide:

- Support for every stage of the software development life cycle, including deployment to multiple environments, observability and governance controls.

- A collaborative development environment with versioning and synchronization of changes from multiple developers working in parallel.

- Tools for the creation and maintenance of packaged business capabilities, such as shared business-specific APIs.

- Extensible library of connectors for popular application platforms, business applications and database management systems.

- AI-powered accelerators including generative AI capabilities for automation of routine development tasks and insights for application optimization and further development opportunities.

Optional Capabilities

Optional capabilities include:

- Internal implementation of design systems or integration with external design systems.

- Data hub or data fabric services that provide data governance and composition.

- AI/machine learning (ML) for decision automation.

- Generative AI features for an application's end users.

- Support for modern architectures like event-driven and streaming architecture, microservice architecture and micro front ends.

- Support for integration with external test management and test automation tools or in-built test automation tooling.

Magic Quadrant

Figure 1: Magic Quadrant for Enterprise Low-Code Application Platforms

Magic Quadrant showing CHALLENGERS (top-left), LEADERS (top-right), NICHE PLAYERS (bottom-left), and VISIONARIES (bottom-right) quadrants. Axes: ABILITY TO EXECUTE (vertical) and COMPLETENESS OF VISION (horizontal). Vendors plotted: Mendix, Microsoft, OutSystems, Appian, ServiceNow, Pegasystems (Leaders); Oracle, Salesforce, Zoho (Challengers); Retool, SAP (Visionaries); Creatio, Newgen (Niche Players). As of October 2024. © Gartner, Inc.

Vendor Strengths and Cautions

Appian

Appian is a Leader in this Magic Quadrant. Its LCAP product is the Appian Platform, which it also offers as a managed service (Appian Cloud).

Appian targets a wide range of use cases for large enterprises across many industries, with a strong focus on process automation. Its key platform features include a low-code tool for building public websites (Portals), a case management suite (Case Management Studio), data visualization features (Data Fabric) and managed generative AI (GenAI) models through the embedding of Amazon Bedrock.

Appian is prioritizing expansion of its market presence beyond North America and Europe (especially in Asia/Pacific) and plans to widen its presence in new industry verticals like healthcare and education.

Strengths
- **Geographic strategy:** Appian has built a strong partner network of global systems integrators (GSIs) to reach customers across multiple regions. It is scaling back its number of partners to focus on building high-quality partnerships with the top GSIs. Appian has expanded its direct sales and support presence in Japan, Portugal and Mexico, and its GSI partners have helped Appian reach more customers in Japan, India and Australia.

- **Business model:** Appian entered a strategic collaboration agreement with Amazon Web Services (AWS) to expand its AI capabilities. Appian plans to combine its AI and data fabric with large language models (LLMs) from Amazon Bedrock and machine learning (ML) from Amazon SageMaker. This agreement is indicative of Appian's strategic focus on augmenting its low-code, process automation and data capabilities with GenAI.

- **Product strategy:** Appian provides numerous features to support enterprise developers. For example, it offers managed GenAI models to accelerate development and Appian Portals, which serves as a digital experience platform for building public websites. To address concerns about vendor lock-in, Appian supports open standards (like BPMN and DMN) and portable formats for exporting and importing application configurations (like XML and JSON).

Cautions
- **Sales execution/pricing:** New Appian features, like Case Management Studio and its managed GenAI models, are not included in the cost of its core platform offering. While Appian has not changed its license costs for the Appian Platform in 2024, customers who want to use Appian's new features may need to pay additional fees.

- **Sales strategy:** Appian's sales team targets large enterprises with more than 5,000 employees, and it does not have a cohesive strategy for selling to small businesses. Only 10% of Appian customers are small businesses, while 70% are large enterprises.

- **Customer experience:** Gartner clients often complain about difficulties in satisfying the need for specific developer skills for the Appian platform. The speed of Appian's global expansion

and aggressive marketing against multiple use cases from RPA to SaaS applications meet increased demand for a variety of skills.

Creatio

Creatio is a Niche Player in this Magic Quadrant. Its LCAP offering is Studio Creatio.

Creatio primarily targets hyperautomation and business-led development use cases for small and midsize enterprises, with the majority in the banking, financial services and insurance (BFSI), manufacturing, and professional services industries. Its key platform features include no-code development for business and IT users, marketplace and CRM.

Creatio is prioritizing platform development initiatives aimed at application scaling and governance, as well as AI initiatives aimed at boosting developer productivity and experience. It plans to expand its support for the governance of composable architectures and utilize Creatio Copilot to support industry-specific features for its key customer verticals.

Strengths

- **Sales strategy:** Creatio developed a sales strategy targeted at business and IT buyers. Its multiproduct portfolio and target use cases are well-defined, with the core no-code platform offering to address the business use cases and verticals in which Creatio operates most comfortably, like BFSI and professional service organizations.

- **Vertical/industry strategy:** Creatio's top industry verticals include BFSI, manufacturing and professional services, but it has a natural fit in all industry verticals thanks to the ease of customization and integration, as well as a generic CRM solution built on the Creatio platform. The company is prioritizing the expansion of its capabilities for the key industries it already serves instead of entering new industries.

- **Sales execution/pricing:** Creatio has reported significant sales growth in North America and Europe, with modest expansion in Latin America and Asia/Pacific. Creatio is working to expand beyond its traditional focus on small and midsize enterprises by targeting large companies with marketing and sales messaging about composable architecture, improved customer experience and modular pricing.

Cautions

- **Market understanding:** Creatio's view of the low-code/no-code markets emphasizes hyperautomation and business-led application delivery initiatives. This does not align with the enterprise LCAP market for mission-critical application development that targets IT leaders and software engineering teams.

- **Marketing strategy:** Creatio markets its product to business users, which has led to limited awareness of its offering among IT buyers, and may hinder the growth associated with platform as a service (PaaS) and more-generic application platform use cases.

- **Business model:** Reliance on business-led application development and democratization of IT makes Creatio primarily focused on business users rather than professional software developers.

Mendix

Mendix is a Leader in this Magic Quadrant. Mendix is a subsidiary of Siemens.

Mendix targets a wide range of use cases for enterprises of all sizes, focusing on the manufacturing, financial services and public sector industries. Its key platform features include support for composability and enterprise architecture, embedded tooling and integration in the developer toolchain throughout the software development life cycle and multiexperience application development.

Mendix continues to prioritize innovation in platform and application governance to satisfy the fast-growing demand for mission-critical enterprise application development on LCAPs. It also plans to expand its AI and data architectures.

Strengths

- **Market understanding:** Mendix has anticipated and responded to the current evolution of enterprise developer tooling in the enterprise LCAP market. To fulfill this market demand, it has focused on delivering low-code capabilities designed for developers and IT leaders. Mendix recognizes that IT leaders and enterprise developers are transitioning from traditional enterprise application stacks to managed low-code platforms.

- **Customer experience:** Mendix has updated its customer success programs to target a wider range of users, including enterprise architects and software engineering leaders. As a result of its improved customer support, a high rate of existing Mendix customers are expanding their license subscriptions by adding new use cases and onboarding more end users on apps developed on the Mendix platform.

- **Marketing strategy:** Mendix tailors its messaging to three key customer personas: CxOs, software engineering leaders and enterprise architects. Its market segmentation and narrative enable Mendix to effectively target the primary users of enterprise LCAPs. Mendix has unrealized potential in industries such as telecom and healthcare, which have started to accelerate enterprise LCAP adoption and education.

Cautions

- **Marketing execution:** Mendix is not aggressive in promoting its product. Its investment in marketing, developer communities and partner networks is smaller compared to competition of similar size, which could explain its lower market share.

- **Sales strategy:** Mendix has a relatively small partner network compared to other leading LCAP vendors. This lack of partners may restrict its ability to reach new prospects and support existing customers consistently across all regions, particularly in emerging markets.

- **Vertical/industry strategy:** Mendix has not gained much momentum outside of its core customer industries (manufacturing, financial services and public sector). It has not shown significant progress in other sectors while it has begun to expand into retail and professional services.

Microsoft

Microsoft is a Leader in this Magic Quadrant. Its LCAP offering is a combination of Microsoft Power Apps and Power Pages, Power Automate and Dataverse under the Power Platform product suite.

Microsoft targets a wide range of use cases for enterprises of all sizes across all industries. Its key platform features include AI augmentation for development and end-user experience, a rich technology ecosystem, and developer experience that targets all categories of developer personas.

Microsoft is aiming to significantly reduce the cost of change for the applications and bring down the total cost of ownership. It plans to do this by involving citizen developers and business technologists in application delivery, whereas most vendors prioritize developer productivity and business outcomes. Microsoft is also investing in the user experience (UX) of the applications built with Power Platform by creating a "Generative UX" that fuses its traditional UX with Microsoft Copilot, which should bring intelligence and flexibility to the solutions.

Strengths
- **Business model:** Microsoft Power Platform gained popularity thanks to its simplified, point-and-click visual development of business capabilities that have mostly been adopted by citizen developers and business technologists. Microsoft has started to address the needs of software engineering teams for developing mission-critical, enterprise-level applications done both in-house and with the help of a global network of systems integrators.

- **Geographic strategy:** Microsoft has a sizable number of customers in every region. Its Power Platform has continued to gain more users across the world, as evidenced by its growth rate of 72% year over year. Gartner estimates that Microsoft Power Apps has the largest user base of any enterprise LCAP. Microsoft has also built a robust network of systems integrators and support partners to reach customers on a global scale effectively.

- **Customer experience:** Microsoft has heavily funded its Power Accelerator Program to provide large enterprise customers with expert guidance for implementation. Microsoft listened to customer feedback about the lack of support for software engineering teams working jointly with business experts on complex mission-critical application development. It invested in enhancing its governance and developer controls with managed environments, pipeline updates, support for coauthoring and a source code view.

Cautions
- **Sales execution/pricing:** Microsoft's end-user licensing model makes it difficult for customers to support initiatives that connect multiple tenants and require public access, such as B2B

applications, multiexperience development and modernization. Also, additional charges may be required for mission-critical enterprise use cases, such as additional capacity in Dataverse or a separate Power Automate license for workflows triggered outside of Power Apps. The Power Platform Licensing Guide is a complex, 33-page document as of February 2024.

- **Market responsiveness**: Microsoft faces the challenge of keeping pace with the demands of its large customer base, which expects the Power Platform to support a wide range of increasingly complex application development use cases. Compared to vendors that serve a more targeted market segment, Microsoft received lower scores for the use cases specific to software engineering teams like complex internal- and external-facing applications.

- **Market understanding**: Gartner clients have noticed increased pressure on existing IT governance frameworks, change management processes and tooling as they extend their usage of Microsoft Power Platform. Application development initiatives that span across business and IT often need investment in governance and compliance that extends the capabilities provided by Power Platform.

Newgen

Newgen is a Niche Player in this Magic Quadrant. Its LCAP offering is the NewgenONE digital transformation platform.

Newgen primarily targets large enterprises in banking, insurance, the public sector and healthcare. Its key platform features include the Newgen Application Marketplace, which provides a rich selection of application templates and integration connectors for its key customer industries.

Newgen prioritizes business process automation (BPA) use cases for line-of-business back-office applications.

Strengths

- **Market understanding**: Newgen positions the NewgenONE platform as a better alternative to traditional BPA and modernization tools and platforms. This resonates well with the trend of LCAPs addressing the needs of software engineering teams. Solution and use-case examples support the complex architectures of mission-critical enterprise applications that can be implemented on LCAP.

- **Sales strategy**: Newgen continues to target large enterprise customers in the public sector and financial services industry, as 80% of Newgen customers are large enterprises. The company relies on buyer personas that almost equally represent business and IT. This approach helps to increase the chances of successful sales.

- **Marketing execution**: Newgen builds its marketing around BPA with the promise of support for the entire technology stack. Working with IT leaders and software engineering teams helps Newgen grow the portfolio of mission-critical, complex applications that are delivered with its platform.

Cautions

- **Market responsiveness and track record:** Newgen's publicly available materials and technical documentation give the impression of a service company that usually describes generic solutions and architectures instead of focusing on the LCAP product's features and showcasing its capabilities.

- **Vertical/industry strategy:** Newgen has gained a limited number of customers in new verticals outside of the public sector and financial services. It plans to leverage its partner network to expand into verticals such as telecommunications, energy, media and transportation, but has not made much progress.

- **Product strategy:** Documentation for Newgen's platform capabilities for application build- and runtime components required for mission-critical enterprise application development is limited but available on demand. These limitations in the context of successful sales indicate excessive reliance on development services provided by Newgen or its partners.

Oracle

Oracle is a Challenger in this Magic Quadrant. Its LCAP offering is Oracle APEX Service. It is available as a managed cloud service on Oracle Cloud Infrastructure (OCI), other managed environments that offer Oracle Database, or a self-managed Oracle Database running on-premises or in the cloud of the client's choosing.

Oracle targets various use cases for organizations of all sizes across all industries. Zero-latency data access and usage-based pricing are among the key APEX platform properties that align with Oracle's promise of performance and scalability.

Oracle's own SaaS application strategy includes APEX as a primary platform for custom development. The company is prioritizing investments in APEX to complement its database product and OCI.

Strengths

- **Operations:** Oracle is a major dbPaaS, IaaS and SaaS vendor running on more than 50 of its own data centers — more than any other LCAP vendor. It targets a global community of 850,000 developers that have access to APEX and offers preloaded data assets/schemas for many industries. Successful expansion of OCI helps to maintain focus on customer success initiatives and interest from the partners in bringing APEX to new use cases and modernization of legacy business capabilities.

- **Sales execution/pricing:** Oracle is one of the few LCAP vendors that offer usage-based pricing aligned with PaaS products. Most of its competitors offer a SaaS pricing model based on the number of users and applications running on an LCAP.

- **Sales strategy:** As confirmed by Gartner's client interactions, Oracle is successfully expanding its APEX Service customer base by upselling existing Oracle customers or promoting APEX Service with new sales of Oracle Autonomous Database or OCI. Oracle also leads the effort to convert enterprise developers from traditional application stacks to enterprise LCAP.

Cautions

- **Marketing strategy:** Gartner analysts occasionally meet clients who want to move from Oracle APEX to another enterprise LCAP because of the missing features or the complexity of their application scenarios. Often, these clients don't understand (or misuse) the APEX platform, which indicates the need for better go-to-market strategy and customer retention initiatives. These should not only focus on the baseline enterprise LCAP features and innovation, but also support core software engineering use cases.

- **Business model:** Oracle APEX remains strongly linked with the wider Oracle technology and application portfolio, both in terms of implementation and business strategy. This limits the flexibility of technology choices and licensing in complex enterprise environments. It may appear as a strength for some APEX deployments that focus on OCI, Oracle Database or Oracle's business applications, but it's a caution because APEX adoption outside the Oracle ecosystem remains rare.

- **Product strategy:** The Oracle APEX product portfolio remains modest compared to the leading enterprise LCAPs, with clients mentioning developer experience problems in complex application scenarios. This is especially the case with complex user experiences and workflows, limited integration capabilities, and lack of support for industry-specific, prebuilt components and application templates.

OutSystems

OutSystems is a Leader in this Magic Quadrant. Its LCAP offering is the OutSystems platform, with two product versions: OutSystems Developer Cloud (ODC), which offers vendor-managed deployment, and OutSystems 11, designed for customer-managed operations.

OutSystems targets a wide range of use cases for organizations of all sizes across all industries. Its key platform features include an advanced developer toolset for the entire SDLC, integration capabilities and a set of GenAI-powered application development capabilities under the recent Project Morpheus initiative.

OutSystems prioritizes AI-assisted developer experience features and platform support for building AI-powered end-user experiences. It also plans to strengthen its platform's regulatory compliance features to support a broader range of industries.

Strengths

- **Market understanding:** OutSystems has responded to developer demand for GenAI features with Project Morpheus, a GenAI-powered application development capability. It builds a strong sense of developer needs by engaging with communities, organizing events, and offering developer training and certifications.

- **Vertical/industry strategy:** OutSystems differentiates itself from other enterprise LCAP vendors by extending its customer base beyond financial services and public-sector organizations. OutSystems has acquired new customers across industries with high LCAP potential — such as

manufacturing, retail and technology — by strengthening its platform's regulatory compliance features. It plans to add support for more compliance protocols to continue its momentum.

- **Sales strategy:** OutSystems has succeeded in acquiring customers of all sizes. More than half of its customers are small and midsize businesses, but large global enterprises are also present in its customer portfolio. OutSystems has built a strong partner network of GSIs to support customers in every region. Notably, it has established a sizable presence in Asia/Pacific and has become one of Japan's most popular enterprise LCAPs.

Cautions

- **Marketing strategy:** OutSystems broadly targets software engineering teams, aka professional developers. Its platform is not well-known or understood among important buying decision makers like business leaders and sourcing teams. OutSystems could also do more to address the business-specific demands of midsize businesses.

- **Sales execution/pricing:** OutSystems was one of the few LCAP vendors to increase its platform price in 2023. While OutSystems has expanded its customer base with introductory and volume-based discounts in the past, its future growth will require more sustainable pricing strategies. OutSystems customers have also stated that its pricing model is too complex for mid- and long-term budgeting. Customers seek more straightforward, predictable licensing and pricing models based on organic platform usage.

- **Product strategy:** Gartner clients continue to report a lack of clarity about the dual-product strategy currently run by OutSystems. Many potential customers — and even existing customers — express doubts about making long-term investments in OutSystems when they are unsure about the final product strategy, and cannot choose between OutSystems 11 and OutSystems Developer Cloud.

Pegasystems

Pegasystems is a Leader in this Magic Quadrant. Its LCAP offering is the Pega Infinity platform.

Pegasystems has one of the biggest LCAP market shares and is well-known for its BPA background. Pegasystems offers industry- and business-specific applications, templates and components for financial services, the public sector, telecom and healthcare running on its LCAP platform.

Pegasystems is prioritizing the development of GenAI capabilities to augment and accelerate the development of enterprise applications. It plans to expand beyond its current Pega GenAI Blueprint and Pega GenAI Autopilot offerings with additional AI-powered capabilities.

Strengths

- **Product strategy:** GenAI is the cornerstone of Pega's innovation and product strategy. It has launched Pega GenAI Blueprint for accelerated application delivery and Pega GenAI Autopilot for developer assistance. These GenAI features effectively target enterprise developers and enable them to embed AI decision support into workflows. Pegasystems' product roadmap includes numerous additional AI-powered capabilities.

- **Customer experience:** The company boasts a high customer retention rate compared to other vendors in the enterprise LCAP market, and Pega Infinity customers tend to stay with the platform. This strong customer retention indicates high customer satisfaction.

- **Business model:** Pegasystems has a significant LCAP market share and global presence. It offers a diverse product portfolio that helps with customer retention and widens the addressable market. The global availability of skills and a network of partners is another advantage of Pegasystems, as highlighted in Gartner customer conversations.

Cautions

- **Sales execution/pricing:** Pegasystems had relatively modest 2023 revenue growth from its LCAP product compared to its competitors in this Magic Quadrant. Also, its usage-based pricing model (price per case) has aggressive limits on capacity and time, which may diminish its utility for pilot projects and production trials.

- **Market understanding:** Pegasystems needs to prioritize platform features for the development of a complex and compelling user experience and data virtualization. This will allow it to extend from its home base of BPA use cases and become the platform of choice for external-facing enterprise applications and modernization initiatives.

- **Vertical/industry strategy:** Pega Infinity platform client representation is quite segmented by industry verticals and company sizes. The significant progress that has been demonstrated by its competitors will make it challenging for Pegasystems to maintain its dominance in the LCAP market.

Retool

Retool is a Visionary in this Magic Quadrant. Its LCAP offering is the Retool platform.

Retool targets enterprise customers of all sizes, especially with technology use cases including software development and operations. Retool has a notable presence in multiple industry sectors that do not focus exclusively on technology. Key use cases addressed by the platform are internal tools and back-office applications, also including public-facing support by Portals, multitenant support and tools that embed AI in an application's UX.

Retool prioritizes governance and DevOps capabilities that enable mission-critical enterprise application development and enhance established working methods for software engineering teams. The addition of GenAI helps Retool to keep up with the market and satisfy the demand for AI-assisted application delivery.

Strengths

- **Market understanding:** Retool effectively targets enterprise developers and IT leaders in product and sales strategies. Its platform updates align with the needs of these primary users, with features such as public-facing support by Portals, support for multitenancy and tools to embed AI in an application's UX. It plans to expand its efforts to attract more enterprise developers in midsize and large enterprises.

- **Sales strategy:** Retool's adoption among nonpaying customers is very high, even compared to more prominent LCAP vendors that offer free licenses. Retool has effectively driven widespread adoption in the developer community. While Retool's customer base is primarily small companies, it has gained some large enterprise customers and is actively expanding its efforts to acquire midsize and large enterprise customers.

- **Sales execution/pricing:** Retool is a fast-growing company, mainly through organic growth based on platform popularity and recognition in developer communities. It also had lower investment in marketing initiatives and partner networks than other LCAP vendors. Retool is one of the only LCAP vendors that has decreased its prices since 2023. Its updated pricing model also supports pricing tiers for different user personas.

Cautions

- **Market responsiveness and track record:** Retool is still catching up with competing enterprise LCAP offerings when it comes to product capabilities. It often relies on code for customizations (JavaScript) which is a deliberate choice for giving developers more control but doesn't align with the enterprise LCAP direction set by some market leaders. Many Retool customers use self-managed deployments, which is a diminishing market.

- **Geographic strategy:** Retool primarily serves customers in North America, with a smaller presence in Europe and Asia/Pacific. It does not have a widely developed partner network. It has a relatively limited geographic reach and does not offer localized support in every region.

- **Marketing execution:** To reach more customers, especially large enterprises, Retool needs to significantly expand its sales and marketing investment. It remains a small vendor compared to most others in this Magic Quadrant, so it faces the challenge of competing with larger vendors for visibility in this competitive market.

Salesforce

Salesforce is a Challenger in this Magic Quadrant. Its LCAP offering is the Salesforce Platform, which has been rebranded as the Einstein 1 Platform.

Salesforce targets multiple use cases for midsize and large enterprises — mainly in the sales, marketing and customer service categories — across all business verticals. Its key LCAP features are built around extending SaaS products with BPA, Lightning App Builder for UX and data orchestration.

Salesforce is prioritizing the expansion of data-centric use cases and roles, with a focus on AI.

Strengths

- **Customer experience:** Salesforce continues to use its strategic partnership links with AWS, Google and Microsoft to accelerate the adoption of AI features. It keeps open architecture to prevent customer lock-in by supporting "bring your own model," "bring your own large language model" and "bring your own lake" features.

- **Operations:** Salesforce is a large technology vendor with a significant global presence and strong partner support. It invests in its Hyperforce infrastructure and its Einstein Trust Layer on Hyperforce to provide a reliable and secure environment for Salesforce customers' data and applications running on the Einstein 1 Platform.

- **Innovation:** Salesforce has delivered innovative AI features and accelerated the adoption of these features via strategic partnerships with AWS, Google and Microsoft. Einstein 1 Studio enables the next generation of code-free application development on Salesforce enabled by GenAI and a foundational metadata platform.

Cautions

- **Market understanding:** Gartner clients often don't associate Salesforce with a low-code application development platform but see it as a rich ecosystem of multiple platforms. In these cases, software engineering teams mostly use the platform's traditional, pro-code capabilities that utilize Apex for complex application development.

- **Product strategy:** Compared to other vendors, the Salesforce product portfolio does not clearly outline the LCAP product. Salesforce offers low-code capabilities, but with multiple enhancements like Einstein 1, Copilot and Data Cloud, the focus is moving to a highly customizable SaaS offering rather than an LCAP product that targets software engineering teams.

- **Market responsiveness:** Salesforce positions the Einstein 1 Platform in the context of building applications for customer experiences within the Salesforce ecosystem, and not as a general-purpose application development platform like some other LCAP vendors.

SAP

SAP is a Visionary in this Magic Quadrant. Its LCAP offering is SAP Build, which is part of the broader SAP Business Technology Platform (BTP). SAP BTP connectors represent the data component linking to internal SAP data architectures and external (non-SAP) databases and APIs.

SAP targets various back-office- and line-of-business-specific use cases for medium and large enterprises across all industries. Its key platform features are delivered in the context of the SAP ecosystem. SAP Build is aimed at clients that are extending and enhancing SAP solutions without relying on additional vendors.

SAP prioritizes "fusion development" by unifying its traditional developer stacks and tools with its enterprise LCAP capabilities. While most other application platforms use separate technology stacks and developer tools for different developer personas, SAP's fusion development envisions a single application definition being developed and maintained through different developer experience components (like Build Apps, Build Code, Build Process Automation and Build Work Zone).

Strengths

- **Marketing strategy:** SAP is promoting the unique concept of fusion development. Instead of converting developers to LCAPs, it combines its traditional developer stack with low-code SAP

Build products. This multipronged development strategy resonates with enterprise developers and IT leaders who want the flexibility to use a range of approaches to build custom applications.

- **Product strategy:** SAP is unifying and standardizing its application runtimes and developer tools for numerous developer personas and use cases. This new product composition makes it easier for customers to consume SAP Build and establish partnership links. It also provides the SAP Store and SAP Business Accelerator Hub offering prebuilt reusable components that accelerate application delivery.

- **Geographic strategy:** SAP is a large technology vendor with a significant customer base in every global region. Its strength as an ERP vendor enables it to effectively offer its enterprise LCAP capabilities to existing customers.

Cautions

- **Business model:** Like other software vendors with strong SaaS or commercial, off-the-shelf portfolios, SAP considers its LCAP business an extension for its own "main products," be it ERP, CRM or HR platforms that customers need to extend and integrate. This creates a barrier for software engineering leaders and architects looking for a platform of choice for general-purpose or vertical-business-specific application development.

- **Sales execution/pricing:** Multiple SAP Build products need to be combined to make a consistent offering that matches our LCAP market definition. In addition, SAP differentiates developer and end-user licenses, with developer licenses being more expensive and applied on top of the Base and Automation package price that enables the app building and workflow functionality within SAP BTP.

- **Product strategy:** In conversations with Gartner, clients mentioned the lack of clarity about SAP Build products, how they fit into their existing application architectures or which products to choose for new application delivery. For example, SAP Signavio and SAP Build Process Automation have overlapping features and process automation opportunities. For this reason, SAP requires further architecture harmonization of its complex platform portfolio.

ServiceNow

ServiceNow is a Leader in this Magic Quadrant. Its LCAP offering is the ServiceNow App Engine.

ServiceNow targets multiple use cases for large enterprises across all industries, emphasizing process automation. Its crucial platform features include workflow automation, GenAI, and source code management and analysis.

ServiceNow App Engine is most often used for automating internal company processes, including application modernization and new back-office functionality. ServiceNow plans to upgrade its platform with improved operational features for enterprise developers, such as source code management and analysis.

Strengths

- **Customer experience:** ServiceNow delivers on customer demand for GenAI and enterprise features for workflow automation. ServiceNow aims to build on its success as an automation technology provider with simple business and technology cases to address the wider scope of application development use cases.

- **Vertical/industry strategy:** ServiceNow has built an evenly distributed customer base across all industries. It continues to strengthen its partnership with companies that can help deliver vertical-specific solutions, and is promoting its offering across some industries (including healthcare and life sciences, technology and education sectors) that are not yet prioritized by most LCAP vendors.

- **Marketing strategy:** ServiceNow targets IT leaders and top technology decision makers with its LCAP offering. Such targeting matches the market trend of enterprise LCAP usage by software engineering teams for mission-critical enterprise application delivery. BPA remains a core offering in ServiceNow's LCAP stack. This helps it to attract the attention of the business leaders that influence buying decisions.

Cautions

- **Marketing execution:** Targeting of developer community outreach and software engineering teams — including events and developer-specific marketing — is weaker compared to the other Magic Quadrant Leaders.

- **Market responsiveness:** Gartner clients rarely talk about ServiceNow being used for use cases like external-facing applications, mobile app development or complex UX for back-office applications. ServiceNow App Engine remains strongly associated with BPA and integration.

- **Sales strategy:** ServiceNow has a free developer trial, but it does not offer a limited free production license. This hinders the piloting of LCAP-based mission-critical application development for organizations new to ServiceNow.

Zoho

Zoho is a Challenger in this Magic Quadrant. Its LCAP product is Zoho Creator.

Zoho's product suite includes applications and tools for the most popular and generic business use cases across most industry verticals. This makes Zoho Creator an ecosystem-powered LCAP with key features built to support integration and extension of the business capabilities offered as commercial, off-the-shelf software or SaaS.

Zoho is prioritizing the development of more industry-specific features for its "home" verticals (these include education, manufacturing and professional services organizations), as well as investing in expansion into the healthcare and transport/logistics domains. Both of these industries have indicated strong potential for adopting LCAP platforms that support mission-critical enterprise application development.

Strengths

- **Marketing strategy:** Zoho's marketing targets IT leaders and application developers. It highlights a rich SaaS product portfolio and realizes the opportunity to position its LCAP as a central piece of technology that supports flexibility and customization for the entire product suite.

- **Operations:** Zoho provides customers with an extended period to transition to new platform versions. This level of flexibility is a differentiator for Zoho compared to other managed-only enterprise LCAPs, and it helps to improve customer experience and retention.

- **Vertical/industry strategy:** Zoho delivers generic and composable capabilities that enable success in any business vertical. It uses its sales and partner connections to support business-specific solutions in the industries of its choice, such as education, manufacturing, professional services and transportation. Still, no platform limitation exists for extending Zoho's presence into all business verticals.

Cautions

- **Marketing execution:** Zoho relies more on organic growth and less on a specific marketing push for its LCAP product. Zoho Creator usage is driven by a large portfolio of Zoho applications but its marketing doesn't address the new trend of independent application development for mission-critical, client-facing, highly customized enterprise applications.

- **Business model:** Zoho has a relatively limited number of systems integrator partners compared to its competitors, which may limit its ability to reach customers in industries like healthcare, financial services, telecom or the public sector (despite strong LCAP adoption in these verticals). Zoho will also need to expand its partner network to meet the needs of large enterprises, which represent only a small share of Zoho's current customer base.

- **Innovation:** Updates to Zoho Creator have mostly focused on functional enhancements and integration to improve developer experience. The innovation initiatives are less about technology, but more business-focused in nature, like new industry partnerships, or sales and marketing strategies.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor's appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

- SAP

Dropped

The following vendors were dropped because their customer interest index (CII) scores were lower than the competitors included in this Magic Quadrant. Check the Inclusion and Exclusion Criteria section further in this document to find out more about CII.

- Globant (GeneXus)

- HCLSoftware

- Huawei

- Kintone

- Unqork

Inclusion and Exclusion Criteria

To qualify for inclusion, each provider needed to:

- Demonstrate a **go-to-market strategy and specific pricing** for its low-code application platform (LCAP) for cross-industry or general-purpose application development. The LCAP must:

  - Not be used only or mainly for building specific vertical/industry applications.

  - Not only be a product bundled with some other solution or platform.

  - Support the development and deployment of applications in a distributed environment across organizational structures of IT and business departments.

- Provide **low-code capabilities** (minimize or eliminate the need for coding and code maintenance tasks) to:

  - Develop, version, test, deploy, execute, administer, monitor and manage the applications and their relevant artifacts.

  - Provide features to design data schema and implement application logic.

  - Support composition of internal and external data sources, including internal database and extendable connectors to external databases, APIs and event channels.

  - Create rich application user interfaces for web and mobile channels.

  - Support automation for platform patching and versioning or seamless upgrades for managed subscriptions.

  - Provide single-step deployment across environments (development, test, staging, production).

  - Maintain a catalog (a marketplace) for sharing components, modules, connectors and templates within the client's organization or across different clients.

- Deliver an LCAP that is **enterprise-grade** by providing:

  - High availability and disaster recovery.

  - Secure access to applications.

  - Technical support to customers.

  - Third-party application access to application logic and/or data, via APIs and/or event topics.

In addition to the above market and technical criteria, each participating vendor must meet the following **business criteria**:

- **Size:** The vendor must, as of 31 March 2024, fulfill one of the following size requirements combinations:

  - LCAP license and/or subscription revenue of at least $60 million for LCAP over the previous year and at least 100 paying enterprise customer organizations (of at least 1,000 employees) for its LCAP offering, excluding other related product offerings.

  - LCAP license and/or subscription revenue of at least $25 million for LCAP over the previous year and at least 5,000 paying enterprise customer organizations for its LCAP offering, excluding other related product offerings.

  - LCAP developer community of over 100,000 developers using the LCAP across all customers.

- A **customer interest index** (CII) score of 50% and above.

  - For this 2024 Magic Quadrant, Gartner has internally calculated a CII score with a maximum value of 100 based on a combination of multiple factors, such as:

    - Gartner inquiry volume

    - Gartner.com Peer Insights

    - Social media followers

    - Gartner.com search trends

    - Internet search trends

    - Web traffic analysis

- **International presence**: The vendor must have direct customers (i.e., not through resellers) within three or more of the following geographies:

  - North America

- Europe

- South America

- Middle East and Africa

- China

- Japan/Asia/Pacific

Honorable Mentions

Open-source LCAP products help to address vendor lock-in problems, which is one of the main concerns hindering the LCAP market growth. There are no technical or compliance limitations for applying open-source LCAPs to any use case; however, the creators of the following open-source LCAPs position them for building internal tools, including line-of-business and back-office applications:

- **Appsmith** did not meet the inclusion criteria for size and CII.

- **Budibase** did not meet the inclusion criteria for size and CII.

Evaluation Criteria

Ability to Execute

Gartner's weightings for Ability to Execute emphasize product and sales execution/pricing criteria.

Table 1: Ability to Execute Evaluation Criteria

Evaluation Criteria ↓	Weighting ↓
Product or Service	High
Overall Viability	High
Sales Execution/Pricing	Medium
Market Responsiveness/Record	Medium
Marketing Execution	Low

Evaluation Criteria ↓	Weighting ↓
Customer Experience	Medium
Operations	Low

Source: Gartner (October 2024)

Completeness of Vision

Gartner's weightings for Completeness of Vision emphasize market understanding, offering/product strategy and innovation criteria.

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Table 2: Completeness of Vision Evaluation Criteria

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Evaluation Criteria ↓	Weighting ↓
Market Understanding	High
Marketing Strategy	Medium
Sales Strategy	Medium
Offering (Product) Strategy	Medium
Business Model	Medium
Vertical/Industry Strategy	Low
Innovation	High
Geographic Strategy	Medium

Evaluation Criteria ↓	Weighting ↓

Source: Gartner (October 2024)

Quadrant Descriptions

Leaders

Enterprise LCAP Leaders demonstrate both strong execution (particularly in terms of business performance) and a strong vision (in terms of product and go-to-market strategies). These vendors stand out in a highly competitive, global market and serve a wide range of organizations and application use cases with their robust LCAP offerings.

Challengers

Enterprise LCAP Challengers demonstrate strength in execution but lack the vision of Leaders (especially in offering and go-to-market strategies for broader use cases and markets). Such vendors have shown strong execution in their respective focus areas and are expanding their customer base. However, they have not demonstrated the market understanding and vision required to expand their offerings beyond their core customers to serve different types of buyers and needs.

Visionaries

Enterprise LCAP Visionaries demonstrate a good strategic vision and a strong understanding of the needs of the enterprise LCAP market. However, these vendors have not yet demonstrated a strong track record of executing their strategies and may fall behind competitors in the execution of their strategy or product capabilities.

Niche Players

Enterprise LCAP Niche Players are vendors that focus on a specific market area or have a regional geographic footprint. While they have not demonstrated the strongest Completeness of Vision or Ability to Execute relative to other evaluated vendors, qualifying for this Magic Quadrant is an accomplishment (as hundreds of different vendors market their products as LCAPs). Niche Players in the LCAP market may also be high performers in adjacent technology markets and, in some cases, can be the most suitable option for specific application use cases.

Context

The enterprise LCAPs included in this research demonstrate successful adoption for business application delivery in all use cases and every business vertical. This marks the mainstream adoption phase and creates conditions for market consolidation in the near future.

Double-digit growth of the LCAP market continues but the main usage patterns — and the place of enterprise LCAPs in the technology portfolio — are changing. They have gone from being an extension of the core systems and quick development of simple applications and tools, to playing

an essential part in the development of complex, mission-critical business capabilities. More software engineering teams adopt enterprise LCAPs instead of traditional application development stacks. IT leaders prioritize enterprise LCAPs for modernization initiatives that were too risky and expensive to start with traditional application development stacks, and just not possible with off-the-shelf software.

Trends like platform engineering — and technology innovations like AI-assisted application development and GenAI for the new generation of UX — disrupt the traditional software engineering technology stacks. At the same time, they appear as accelerators for enterprise LCAP adoption because of the native support on the platform level with necessary development, maintenance and governance tooling.

IT leaders of organizations that rely on custom-developed software should:

- Include LCAPs in the IT strategy and proactively manage their position to prevent the organic and uncontrolled expansion of the new platforms without adequate planning for proper architecture governance, budgeting, security and management of skills.

- Consider enterprise LCAPs for accelerated adoption of GenAI in both application development and UX.

- Educate business stakeholders on new ways to deliver applications, including fusion teams, composable architectures and, wherever possible, using prebuilt components of UX and business logic instead of custom-built, "pixel perfect" implementations.

Market Overview

Enterprise LCAP spending is projected to grow to $18.9 billion by 2028. LCAP continues to be the largest segment under the low-code development technologies bucket, which includes iPaaS, BPA, RPA, CADP, MXDP and RMAD technologies. Collective spending on low-code development technologies will cross $46 billion by 2028, with LCAP alone accounting for close to a 40% share.

The rapid growth of the enterprise LCAP market is driven by three key trends:

- **Mainstream enterprise adoption:** More software engineering organizations are transitioning away from traditional "high code" application development stacks and toward enterprise LCAPs that are capable of achieving the scale, performance and controls necessary for the development and maintenance of mission-critical enterprise applications.

- **AI-augmented development**: As software engineering leaders seek out technologies that enable AI-augmented development, enterprise LCAP vendors are starting to offer the quickest and safest way of utilizing GenAI capabilities. This applies to both enhanced application developers and nontechnical end users that can now benefit from GenAI with minimal input from software engineering teams.

- **Composable business:** Modern enterprise application delivery requires up-to-date approaches and disciplines — such as platform engineering and composable architecture — to maintain acceptable time to market, costs and risks. Enterprise LCAPs implement platform-based delivery with advanced software cataloging, integration and orchestration capabilities that provide an out-of-the-box environment that empowers platform engineering and composability.

Evaluation Criteria Definitions

Ability to Execute

Product/Service: Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness/Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen

to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.

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