Magic Quadrant pour les plates-formes d’applications low-code d’entreprise

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Les LCAP accélèrent le développement d’applications en faisant abstraction du codage des composants logiciels réutilisables courants et en allouant les efforts des développeurs à des tâches plus proches des résultats commerciaux. Utilisez cette recherche pour comparer et contraster les fournisseurs sur le marché mondial des LCAP.

Définition/description du marché

Gartner définit les plates-formes d’applications low-code (LCAP) comme des plates-formes d’applications utilisées pour développer et exécuter rapidement des applications personnalisées en faisant abstraction et en minimisant l’utilisation de langages de programmation. Les LCAP d’entreprise sont un sous-ensemble de ce marché qui cible un plus large éventail de profils de développeurs, en particulier les développeurs d’entreprise, et fournit des fonctionnalités essentielles à la livraison et à la maintenance des applications dans les moyennes et grandes entreprises. Ces fonctionnalités incluent la prise en charge des hautes performances, de la disponibilité et de l’évolutivité des applications, de la reprise après sinistre, de la sécurité, de l’accès API aux services cloud d’entreprise et tiers (et à partir de), de la surveillance de l’utilisation, des accords de niveau de service et de la disponibilité du support technique et de la formation.

Les LCAP sont à la base d’un large éventail de types d’applications, de composants d’application et d’automatisation des processus.

Les cas d’utilisation les plus courants sont les suivants :

- Développement de logiciels métier pour les applications back-office et front-office : les architectures et la mise en œuvre des CCAP ont atteint un niveau de maturité tel qu’elles peuvent fournir des services de plate-forme d’applications pour pratiquement n’importe quelle analyse de rentabilisation.
- **Modernisation et augmentation des applications métier existantes :** les LCAP permettent la migration à partir des piles technologiques existantes, ce qui permet et promeut l’activité et l’architecture composables.

- **Développement d'applications pour soutenir les processus internes de l'entreprise et l'automatisation de l'espace de travail** : les LCAP sont apparus comme l'un des facteurs clés du succès des initiatives d'hyperautomatisation.

À tout le moins, un LCAP doit :

- Incluez des fonctionnalités low-code pour développer une application complète composée d'interfaces utilisateur pour les canaux Web et mobiles, de logique métier et de stockage de données.
- Prenez en charge une approche de programmation graphique ou pilotée par modèle grâce à des scripts.
- Agir en tant que plate-forme d'exécution pour les applications développées sur un LCAP.

Le LCAP doit fournir les éléments suivants :

- Prise en charge de toutes les étapes du cycle de vie du développement logiciel, y compris le déploiement dans plusieurs environnements, l'observabilité et les contrôles de gouvernance.
- Prise en charge de la synchronisation des modifications de plusieurs développeurs travaillant en parallèle.
- Génération d'API personnalisées pour la création de fonctionnalités métier packagées et d'API partagées.
- Connecteurs pour les applications d'entreprise, les plates-formes et les systèmes de gestion de bases de données les plus populaires.
- Ensembles d'outils pour les tests ou la prise en charge de l'intégration avec des outils externes de gestion et d'automatisation des tests.

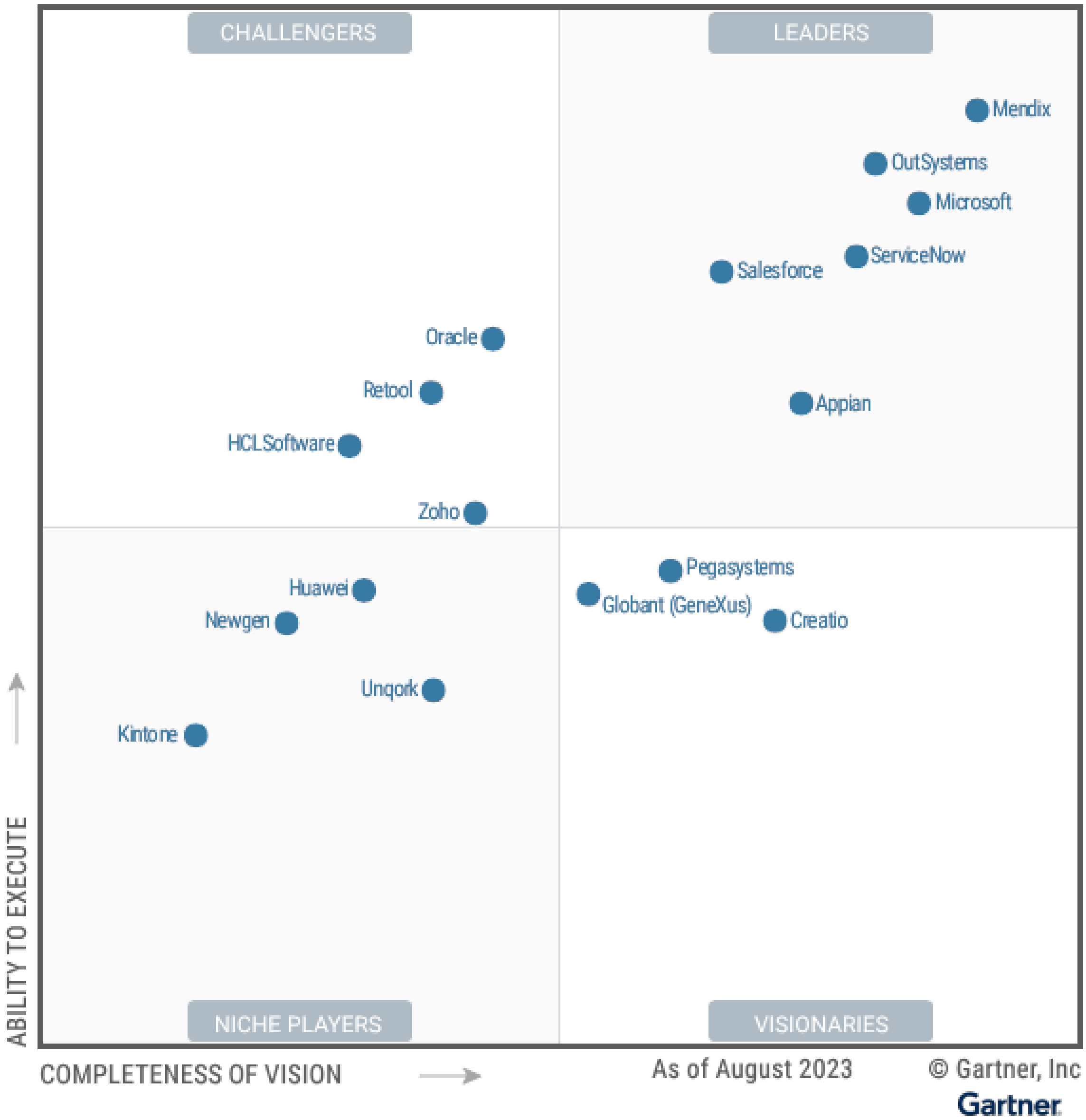
Les fonctionnalités optionnelles sont les suivantes :

- Mise en œuvre interne de systèmes de conception ou intégration avec des systèmes de conception externes.
- Services de hub de données ou de Data Fabric qui assurent la gouvernance et la composition des données.
- Possibilité de créer de nouvelles intégrations et connecteurs pour des applications et des plates-formes externes.
- Prise en charge des architectures modernes telles que l'architecture pilotée par les événements et la diffusion en continu, l'architecture de microservices et les micro-frontends.

- Développement d’applications assistées par l’IA, tests et automatisation des décisions commerciales.

Quadrant magique

Figure 1 : Magic Quadrant pour les plates-formes d’applications low-code d’entreprise



Points forts et mises en garde des fournisseurs

Appian

Appian est l’un des leaders de ce Magic Quadrant. Son offre LCAP est la plate-forme Appian. La différenciation d’Appian sur le marché repose sur sa plateforme d’automatisation unifiée, sa Data Fabric, son expérience utilisateur moderne, la prise en charge de modèles de flux de travail de type BPMN et ses options de déploiement flexibles, y compris un cloud à locataire unique géré par Appian. Appian a axé sa future feuille de route produit sur l’intégration de technologies d’IA, notamment l’apprentissage automatique et l’IA générative, dans sa plateforme afin d’améliorer à la fois l’expérience utilisateur et le développement logiciel.

Les opérations mondiales d’Appian sont principalement basées en Amérique du Nord et en Europe, avec une présence croissante dans la région APAC, bien qu’elle ne soit pas disponible pour les clients basés en Russie ou en Chine. Appian cible les grandes entreprises des secteurs des services financiers, de l’assurance, de l’administration publique et des sciences de la vie, et une part importante de ses ventes provient des canaux partenaires d’intégration de systèmes (SI) et d’intégration de systèmes mondiaux (GSI). Appian dispose d’une série de certifications en matière de sécurité et de confidentialité, notamment SOC 2, SOC 3, PCI-DSS, HIPAA, RGPD, ISO 27001 et FedRAMP.

Forces

- **Logique métier et flux de travail :** Appian a pour objectif d’être une solution à fournisseur unique pour répondre à de multiples besoins en matière de technologies d’entreprise numériques. On s’attend à ce que les clients placent les fonctionnalités LCAP de base de la logique métier et du développement de flux de travail au centre de la conception de leurs applications. Il s’agit d’orchestrer l’automatisation des processus métier (BPA), l’automatisation robotique des processus (RPA) et les interfaces pour les expériences B2C ou B2E soutenues par des fonctionnalités avancées telles que l’IA, la data fabric et l’exploration de processus.

- **Évolutivité à haut volume :** Appian prend en charge la haute disponibilité multirégion, la conformité FedRAMP, le chiffrement des données et diverses certifications. Il prend également en charge les déploiements basés sur des conteneurs sur Kubernetes et l’évolutivité horizontale pour les cas d’utilisation plus importants. Par conséquent, Appian peut prendre en charge de grands volumes d’utilisateurs avec une concurrence élevée.

- **Écosystème** : Appian AppMarket comprend plus de 900 annonces couvrant des solutions, des connecteurs, des fonctions, l’automatisation des tâches et d’autres utilitaires, notamment un plug-in OpenAI.

Précautions

- **Produit :** les clients font état d’une courbe d’apprentissage abrupte et d’un besoin de compétences spécialisées en matière de développement lorsque la plate-forme Appian est utilisée pour automatiser des fonctionnalités commerciales complexes. Il s’agit notamment de structures de données à l’échelle de l’entreprise, de scénarios logiques sophistiqués et d’interfaces utilisateur dynamiques hautement paramétrées.

- **Exécution des ventes et tarification** : les clients signalent des coûts de licence élevés comme un obstacle à l’extension de l’utilisation de la plate-forme, même si Appian Community Edition facilite l’adoption initiale.

- **Stratégie de marché :** Appian réalise un chiffre d’affaires annuel de près d’un demi-milliard de dollars (USD), mais elle continue d’être déficitaire. Appian continue d’investir dans ses canaux partenaires, qui influencent 70 % des nouvelles ventes. Elle compte plus de 600 partenaires, dont des leaders technologiques comme Amazon Web Services (AWS), ainsi que des alliances clés avec des intégrateurs de systèmes mondiaux. Appian aligne sa force de vente verticalement et s’étend au Japon et en Inde. Par conséquent, les frais de vente et d’administration ont augmenté de 7 % par rapport à l’an dernier.

Creatio

Creatio est un visionnaire dans ce Magic Quadrant. Son offre LCAP est Studio Creatio. La différenciation de Creatio sur le marché repose sur ses capacités d’automatisation des flux de travail et de no-code, qui complètent ses offres CRM SaaS : Marketing Creatio, Sales Creatio et Service Creatio. Les entreprises peuvent utiliser Studio Creatio pour automatiser les flux de travail, avec le concepteur de processus gratuit utilisé pour la collaboration entre les équipes. Creatio Marketplace propose une sélection de modèles sectoriels, avec des centaines de connecteurs (y compris Zoom et ChatGPT) et des composants d’application prédéfinis.

Les activités de Creatio sont réparties géographiquement, avec une présence parmi les petites et moyennes entreprises en Amérique du Nord et dans la région EMEA. Creatio se concentre sur les industries, et sa plus grande part est la finance/banque/assurance, la fabrication et les services professionnels. Studio Creatio dispose d’une gamme de certifications de sécurité et de confidentialité, notamment SOC 2, PCI-DSS, HIPAA, RGPD, ISO 27001 et FedRAMP.

Forces

- **Stratégie produit** : le nouveau Freedom UI Designer de Creatio (et la prise en charge de systèmes de conception tels que Figma) apporte de la valeur aux développeurs professionnels et aux développeurs d’unités commerciales. L’architecture composable no-code de Creatio permet le co-développement d’applications avec différents profils de développeurs. Les développeurs d’unités commerciales s’appuient sur des approches visuelles basées sur des modèles, tandis que les développeurs professionnels peuvent se rabattre sur des pratiques de développement traditionnelles telles que l’utilisation du .NET Framework.

- **Stratégie marketing** : La stratégie marketing de Creatio est axée verticalement sur 20+ industries cibles, en grande partie grâce à un réseau mondial de partenaires en pleine expansion. Creatio continue d’organiser des événements marketing innovants (70 en 2022) tels que le lancement de son livre No-Code Playbook avec Steve Wozniak, ainsi que des journées No-Code et des webinaires.

- **Gestion** de la réussite client : Creatio dispose d’un programme de service à la clientèle pour maximiser la réussite des clients, y compris l’affectation d’un « responsable de la réussite client » dédié. Creatio Academy propose des formations en entreprise, des cours d’apprentissage guidés et des cours d’apprentissage en ligne pour les développeurs LCAP.

Précautions

- **Produit** : Studio Creatio est avant tout un outil BPA à architecture 3 niveaux qui met l’accent sur le flux de travail et la gestion des dossiers. Il a donc des capacités limitées pour les développeurs professionnels par rapport aux leaders du marché. Sa version cloud ne prend pas en charge le développement avec des bases de données externes, bien que les sources de données externes soient accessibles via des API.

- **Innovation :** Creatio fournit un développement assisté par l'IA limité. Cependant, sa feuille de route comprend à la fois le développement assisté par l'IA et le développement d'applications pilotées par l'IA et alimentées par GPT, ainsi que l'amélioration de l'interface utilisateur Freedom de Creatio. Une grande partie de l'investissement de Creatio dans l'innovation cible les marchés verticaux, les partenariats et les événements promotionnels.

- **Modèle économique :** le modèle de licence tout-accès de Creatio limite la croissance du chiffre d'affaires. Cela peut être avantageux pour les clients existants qui ont accès à toutes les fonctionnalités de Studio Creatio sans payer de licences supplémentaires. Cependant, cela pourrait limiter l'innovation et la croissance de la plateforme à l'avenir.

Globant (GeneXus)

GeneXus de Globant est un visionnaire dans ce Magic Quadrant. Son offre LCAP est la plateforme GeneXus. GeneXus cible le segment de marché des développeurs professionnels de plateformes low-code/no-code. Positionné comme une plateforme de développement d'applications généralistes, l'héritage de GeneXus est associé à la mise en œuvre de l'expérience utilisateur. Il est également considéré comme un fournisseur de plate-forme de développement multi-expérience (MXDP).

L'acquisition de GeneXus par Globant en 2022 a permis à GeneXus d'accéder à des ressources étendues et à des opportunités de croissance de la plateforme, tant sur le plan géographique qu'en termes de secteurs verticaux et de cas d'utilisation. GeneXus est prêt à rechercher de nouvelles sources de revenus optimisées, en introduisant différentes options de licence et modèles de tarification.

Les fonctionnalités alimentées par l'IA, appelées AI Assistants, ciblent à la fois les utilisateurs finaux et les développeurs. Il s'agit notamment d'interfaces conversationnelles pour des fonctionnalités telles que l'affinement des requêtes de recherche, les invites avancées pour la saisie de données, la navigation dans les implémentations d'applications complexes et le développement rapide d'applications.

Forces

- **Exécution des ventes et tarification :** les licences de GeneXus axées sur les développeurs sont bénéfiques pour les clients qui développent des applications personnalisées et complexes à grande échelle. Bien que la croissance de la clientèle de GeneXus soit inférieure à 10 %, le succès des initiatives de fidélisation de la clientèle et de vente incitative indique une stratégie réussie et des opportunités de croissance future.

- **Stratégie produit** : GeneXus aligne sa stratégie de plateforme sur l'évolution de l'ingénierie logicielle et sur la demande renouvelée d'outils de développement rapide d'applications par les développeurs professionnels. L'investissement dans des fonctionnalités permettant de créer des super-applications et des expériences utilisateur unifiées s'aligne sur la forte demande des clients de Gartner.

- **Expansion** du réseau de partenaires : Globant est devenu le partenaire n°1 de GeneXus après l'acquisition, mais cela a également ouvert la voie à une expansion significative du réseau de partenaires. Le modèle de partenariat actuel est sain et bénéfique pour l'expansion de GeneXus, bien que la croissance de l'entreprise et la mise à l'échelle de la plate-forme soient quelque peu en retard.

Précautions

- **Options de déploiement :** GeneXus ne propose pas d'environnements de production entièrement gérés. Il prend en charge les déploiements de développement et de test entièrement gérés, mais pas la production. Les clients doivent héberger et gérer les instances d'application en production, ce qui nécessite une expertise E&O pertinente.

- **Dépendance** vis-à-vis d'un fournisseur : une combinaison du produit LCAP de GeneXus et des services Globant pour le développement d'applications personnalisées peut entraîner des risques supplémentaires de dépendance vis-à-vis d'un fournisseur. La possibilité pour le client de faire appel à d'autres fournisseurs diminue et le passage à une autre plate-forme devient presque impossible.

- **Opérations mondiales :** Des investissements importants en efforts et en ressources sont nécessaires pour faire de la plateforme GeneXus une solution véritablement mondiale. Il s'agit notamment de la capacité des développeurs, de l'expertise en matière de cloud public et des déploiements gérés par GeneXus avec mutualisation, évolutivité mondiale et certifications régionales.

HCLSoftware

HCLSoftware est un Challenger dans ce Magic Quadrant. Son LCAP est HCL Volt MX, qui fait partie d'une gamme plus large de produits HCL Digital Solutions destinés à la fourniture d'applications d'entreprise. Volt MX combine les caractéristiques d'un MXDP et d'un LCAP. L'expérience de développement de Volt MX est alignée sur la ségrégation classique des environnements d'exécution et des outils de développement pour les implémentations front-end et back-end. La couche frontale est composée de deux parties : HCL Leap, conçu pour les développeurs citoyens, et Iris, pour les développeurs professionnels ou les technologues d'entreprise qui s'occupent d'exigences et d'une évolutivité plus complexes.

Volt MX est disponible sur Volt MX Cloud optimisé par AWS, ou peut être déployé sur l'infrastructure du client, qu'il s'agisse d'un cloud sur site ou privé.

Les régions Europe et Amérique du Nord dominent dans la géographie des clients. Les secteurs verticaux du gouvernement, de la fabrication, de l'énergie et des services publics représentent plus de 50 % de la clientèle de Volt MX. Cependant, HCLSoftware pousse Volt MX dans toutes les régions et cible tous les secteurs d'activité.

Forces

- **Stratégie géographique et commerciale :** La présence mondiale de partenaires, de ressources de réussite client et de main-d'œuvre de vente et de développement soutient la croissance constante de HCLSoftware et accélère le développement des produits Volt MX.

- **Produit** : Des outils riches en fonctionnalités, qui ciblent plusieurs profils de développeurs, et un portefeuille de produits diversifié permettent à HCLSoftware de répondre aux exigences d'un large éventail de clients, des petites entreprises et des entreprises de niche aux leaders mondiaux de l'industrie.

- **Compréhension** du marché : Le positionnement sur le marché de Volt MX et les fonctionnalités de la plate-forme sont alignés sur les tendances les plus populaires et les demandes des clients, telles que les applications multi-expériences, les plates-formes composables, les super-applications et le développement rapide d'applications.

Précautions

- **Dépendance vis-à-vis** d'un fournisseur : HCLSoftware est à la fois une société de produits et de services, de sorte qu'un service de développement personnalisé est proposé à un coût supplémentaire pour combler les lacunes en matière de fonctionnalités de la plate-forme ou compenser le manque d'expertise technique du côté du client. Il en résulte un risque accru de dépendance vis-à-vis d'un fournisseur.

- **Innovation** : HCLSoftware élargit son portefeuille de technologies innovantes par le biais d'acquisitions qui apportent une fragmentation de la technologie et de l'architecture. L'harmonisation des technologies est nécessaire pour garantir une expérience de développement cohérente pour les clients HCLSoftware.

- **Chiffre d'affaires** : La performance financière des plates-formes et services HCLSoftware ne doit pas être considérée comme un indicateur du succès de l'activité LCAP, car les revenus du produit Volt MX ne sont pas déclarés. Nous manquons d'indicateurs tels que les données de demande, les sources Internet publiques ou les analyses des médias sociaux que nous utilisons au cas où les revenus spécifiques au CCAP ne seraient pas divulgués par le fournisseur.

Huawei

Huawei est un acteur de niche dans ce Magic Quadrant. Son offre LCAP est Astro Zero. Sa différenciation sur le marché repose sur une approche no-code pour les applications basées sur l'information développées par des développeurs citoyens, ainsi que sur un système low-code et piloté par les modèles pour les flux de travail et les applications plus complexes. Huawei Astro Zero est disponible dans le cadre de Huawei Cloud, ainsi que divers services cloud tels que ROMA (la solution iPaaS de Huawei), l'IA et l'IoT.

Les applications développées sur Astro Zero peuvent être déployées sur le cloud Huawei géré par le fournisseur, et dans plusieurs régions et jusqu'à trois zones de disponibilité (AZ) avec une disponibilité de 99,95 %. Ces applications sont également prises en charge pour l'hébergement cloud autogéré et l'hébergement sur site autogéré.

La grande majorité des clients LCAP de Huawei sont situés en Chine et les opérations de Huawei sont principalement concentrées en Chine, en Asie-Pacifique, en Amérique latine et au Moyen-

Orient. Elle n'est pas présente en Amérique du Nord, dans la région EMEA ou au Japon. La clientèle de Huawei est répartie équitablement entre les entreprises de toutes tailles, avec un accent sur les secteurs gouvernemental et manufacturier.

Forces

- **Écosystème de plate-forme :** Astro Zero fait partie du portefeuille de services cloud de Huawei , aux côtés de l'iPaaS de Huawei et de plusieurs produits d'applications SaaS. Les développeurs d'Astro Zero bénéficient d'un support d'outils natifs pour accéder aux piles technologiques IoT, de base de données, sans serveur et d'IA de Huawei, ainsi qu'à des technologies plus ésotériques telles que les modèles de jumeaux numériques et la blockchain.

- **Stratégie produit :** Huawei a fait de bons progrès vers son objectif de devenir un guichet unique pour le développement no-code, low-code et pro-code. Il a renforcé l'intégration d'Astro Zero avec l'écosystème Huawei Cloud et a introduit dans le produit la génération automatique de flux conversationnels basée sur l'IA, la prise en charge de la collaboration d'équipe de fusion et un modèle de « SaaS en tant que plateforme ».

- **Exécution des ventes :** Huawei n'est pas seulement un important fournisseur de cloud, mais dispose également d'une base importante de clients payants pour son Astro Zero LCAP et d'un taux de croissance des revenus de plus de 30 %, malgré une répartition géographique limitée de ses clients LCAP.

Précautions

- **Expérience client :** Les clients signalent que les fonctionnalités de développement, la documentation et le matériel de formation d'Astro Zero sont trop modestes par rapport à ceux de ses concurrents sur le marché, tandis que Huawei est en tête du marché dans d'autres secteurs d'activité.

- **Marchés verticaux :** La couverture de l'industrie d'Astro Zero est encore limitée à quelques segments, avec 70 % des revenus collectés par l'administration en ligne et l'éducation, la banque et la fabrication.

- **Stratégie géographique :** Huawei prend principalement en charge les clients en Chine et en Asie-Pacifique, avec une faible utilisation d'Astro Zero en Amérique latine et au Moyen-Orient. Les clients internationaux devront examiner attentivement tous les accords d'assistance locaux, y compris l'assistance SI, et s'assurer que la tarification standard n'est fournie que pour le marché intérieur chinois.

Kintone (Tonalité)

Kintone est un acteur de niche dans ce Magic Quadrant. Son offre LCAP est la plateforme Kintone. Au Japon, le déploiement géré par le fournisseur Kintone n'est disponible que sur le cloud de sa société mère, Cybozu. En dehors du Japon, Kintone prend en charge le déploiement géré par le fournisseur sur AWS. La différenciation de Kintone sur le marché repose sur la collaboration sans code, qui permet aux développeurs citoyens de créer conjointement des flux de travail pour une amélioration continue de l'entreprise, et sur son vaste écosystème de partenaires, qui propose une large gamme d'extensions et de plug-ins.

Les ventes de la plateforme Kintone ont atteint 30 000 clients au premier semestre 2023 et le fournisseur a ajouté 500+ clients payants chaque mois en moyenne. Les activités de Kintone sont principalement concentrées au Japon. Elle continue d'étendre sa présence directe en dehors du Japon, notamment aux États-Unis, en Asie-Pacifique et en Chine. Les clients de la plateforme Kintone sont généralement des petites et moyennes entreprises (PME), avec de nombreux clients dans les secteurs de la fabrication et de la vente au détail.

Forces

- **Exécution des ventes** et tarification : Kintone a continué d'augmenter considérablement sa base de clients et ses revenus de licences au cours de l'année écoulée, grâce à la demande croissante de développement no-code centré sur les développeurs citoyens et à un modèle de tarification très agressif. Ses partenaires de distribution ont également joué un rôle important dans cette croissance. Kintone s'est doté d'un grand intégrateur de systèmes japonais pour une portée mondiale des entreprises, ainsi que de 17 banques régionales japonaises qui soutiennent les PME locales en tant que nouveaux partenaires de distribution.

- **Expérience client :** Kintone a reçu des évaluations positives de l'expérience client sur Gartner Peer Insights par rapport à d'autres fournisseurs de LCAP. Ses cotes pour l'évaluation et la passation de marchés ainsi que pour l'intégration et le déploiement sont demeurées élevées.

- **Viabilité globale :** Kintone et sa société mère, Cybozu, sont rentables et capables de financer une expansion future. Kintone a mis en place un écosystème de partenaires sain et riche, et sa vaste base de clients fournit une solide communauté d'assistance aux utilisateurs.

Précautions

- **Produit** : Par rapport aux autres fournisseurs de ce Magic Quadrant, Kintone manque de nombreuses fonctionnalités, notamment des capacités d'expérience utilisateur, d'automatisation intelligente et d'intégration. Il est également à la traîne dans la prise en charge des fonctionnalités avancées de développement professionnel ou des fonctionnalités émergentes de développement assisté par l'IA. Kintone ne publie pas de feuille de route produit claire et spécifique.

- **Réactivité au marché :** Bien que Kintone soit régulièrement mis à jour pour améliorer sa facilité d'utilisation et ses capacités de gestion liées à la gouvernance pour les développeurs citoyens, il est lent à ajouter des fonctionnalités avancées. Kintone ne prend pas en charge l'architecture moderne recherchée par les développeurs qualifiés (technologues métier/développeurs professionnels) pour le développement d'applications d'entreprise complexes.

- **Stratégie géographique** : La portée géographique de Kintone peut encore être améliorée dans des régions telles que la région EMEA et l'Amérique latine, bien que certains partenariats mondiaux aient été établis récemment, notamment un partenariat en marque blanche avec le groupe Ricoh.

Mendix

Mendix est un leader dans ce Magic Quadrant. Son offre LCAP est la plate-forme Mendix. Mendix est une filiale de Siemens. Sa différenciation sur le marché repose sur son soutien combiné aux acteurs de l'entreprise, aux développeurs citoyens, aux technologues d'entreprise et aux développeurs professionnels. La plateforme Mendix fournit des activités de gestion de portefeuille et de développement qui sont connectées de manière transparente. Il offre une bibliothèque d'actifs composables pour différents secteurs d'activité disponibles sur la place de marché Mendix sous forme de services et de solutions d'applications, ainsi qu'un ciblage spécifique des éditeurs de logiciels indépendants (ISV). Mendix Cloud, basé sur Cloud Foundry et hébergé par AWS, est la cible de déploiement par défaut pour les applications développées sur la plate-forme Mendix. Les déploiements autogérés par les clients sont pris en charge pour le cloud privé basé sur Kubernetes et les centres de données sur site, avec des outils et de la documentation disponibles pour l'hébergement d'opérations, de configuration et de surveillance spécifiques à la plate-forme.

Les opérations de Mendix sont en grande partie basées en Europe, avec un siège social situé aux États-Unis. Sa présence augmente en Amérique latine et en Asie-Pacifique, notamment en Chine et au Japon. Les clients de Mendix Platform sont répartis dans des entreprises de toutes tailles, principalement dans les domaines de la finance, des services professionnels et de la fabrication.

Forces

- **Innovation** : La plateforme Mendix prend en charge le développement de copilotes d'IA (MxAssist Logic Bot, Best Practice Bot, Validation Bot, Performance Bot), l'expérience utilisateur AR ou VR, l'IoT, les fils numériques, les jumeaux numériques et l'edge computing. Le nouveau kit de solutions Mendix cible les éditeurs de logiciels indépendants qui créent des applications SaaS adaptatives/durables avec une protection IP et des capacités intégrées de comptage/facturation.

- **Capacités du produit** : Mendix a obtenu une note élevée pour la plupart des fonctionnalités clés, en particulier en matière d'intégration et d'API, de sécurité et de gouvernance. C'est ce que confirment les avis de Gartner Peer Insights.

- **Viabilité** : Siemens continue d'alimenter la croissance du portefeuille de Mendix en étendant la portée et l'intégration du marché de la plate-forme Mendix à l'ensemble de ses services informatiques et opérationnels. Mendix joue un rôle important dans le portefeuille de logiciels de Siemens, un conglomérat dont le chiffre d'affaires annuel s'élève à plus de 70 milliards de dollars.

Précautions

- **Tarification** : Certains clients se plaignent que le prix de Mendix est trop élevé pour leur budget et que le modèle de tarification de Mendix manque de flexibilité pour satisfaire un large éventail de tailles de clients et de cas d'utilisation.

- **Partenaires et communauté :** Mendix dispose d'une capacité inférieure à celle de ses concurrents et de communautés d'utilisateurs relativement petites. Les clients mentionnent qu'ils rencontrent des difficultés pour trouver des développeurs qualifiés, ce qui devient une pierre d'achoppement pour les implémentations d'entreprise complexes.
- **Marketing :** Le message marketing de Mendix reste trop technique et manque donc des opportunités de cibler efficacement les chefs d'entreprise comme l'un des meilleurs acheteurs de LCAP. Depuis l'évaluation de l'année dernière, Mendix a organisé un nombre relativement faible d'événements/webinaires pour les développeurs en tant que principale initiative de marketing, et le nombre total de participants était faible par rapport à ses principaux concurrents.

Microsoft

Microsoft est un leader dans ce Magic Quadrant. Son offre LCAP est Microsoft Power Apps, étendue à AI Builder, Dataverse, Power Automate et Power Pages, qui sont inclus dans certaines licences Power Apps. D'après de nombreuses interactions avec les clients de Gartner et Peer Insights, Power Apps est plus performant auprès des développeurs citoyens. Une large gamme d'outils axés sur le code est également disponible pour les développeurs professionnels afin d'améliorer la plateforme Power Apps, tels que la publication d'une API personnalisée en un seul clic à partir de Gestion des API Azure, le développement de contrôles personnalisés à l'aide de Power Apps Component Framework et la publication de modèles personnalisés avec AI Builder.

Microsoft's operations are geographically diverse, and it has clients across all industries and enterprise sizes. We estimate that Microsoft Power Apps maintains the largest user base of any LCAP due to the number of enterprise users of Microsoft 365 and Dynamics 365, and their partial entitlements to the Microsoft Power Platform.

Strengths

- **Business model:** Basic Power Apps capabilities are included in Microsoft 365 and Dynamics 365 Enterprise plans. Microsoft 365 users can access standard prebuilt connectors for a wide range of data sources and APIs, utilize custom connectors in Teams, and build APIs on Dataverse. Dynamics 365 users can utilize all connector types, build on Dataverse and create stand-alone applications in their licensed Dynamics 365 environments.
- **Product strategy:** Power Apps supports API-driven, internal business solutions with over 1,000 connectors for many common enterprise applications and cloud-based data sources. Custom connectors can be developed and used as wrappers around external APIs unavailable as prebuilt connectors. Microsoft is among the leading market players for generative AI capabilities, with capabilities such as AI Copilot, Power Apps Ideas and the support of Microsoft 365 Copilot plugins.
- **Governance:** Governance capabilities continue to expand for the Power Platform. Native capabilities like sharing limits, tenant isolation, enterprise policies, data policies, and application life cycle management (ALM) are available through the Power Platform Admin Center and Managed Environments. The open-source Microsoft Power Platform Center of

Excellence Starter Kit offers additional capabilities, such as establishing a business justification process and identifying unused apps and workflows.

Cautions

- **Pricing and licensing:** Gartner clients continue to report concerns about high costs and complex licensing, especially with licensed versions of Power Apps being required to access enterprise data sources and additional governance capabilities.

- **Product consistency:** Not all developer tools and options are available for all types of applications (canvas apps, model-driven apps and Power Pages), so Gartner clients have expressed difficulty rationalizing and unifying standards and best practices.

- **Integration and APIs:** Power Apps' support of providing custom APIs for other applications to integrate with them is restricted to Power Platform's common data layer of Dataverse, while it's an integral feature in other leading LCAPs. As a workaround, Power Automate HTTP triggers or webhooks can be used by external applications to push events and data to applications developed with Power Apps.

Newgen

Newgen is a Niche Player in this Magic Quadrant. Its LCAP offering is the NewgenONE Digital Transformation Platform. Newgen's market differentiation is based on its breadth of capabilities for automating business processes and content services. It uses modern microservices-based architecture and artificial intelligence/machine learning (AI/ML) features, such as intelligent document classification, to deliver business applications with process automation and content management capabilities.

Newgen supports managed private cloud and offers flexibility to its clients for application deployment and hosting on the infrastructure of their choice, including on-premises or public cloud.

Newgen is headquartered in India but operates globally. Its revenue predominantly comes from customers in APAC, with most contributions from India. Additionally, Newgen has a growing presence in the wider APAC region, EMEA and North America. Its clients tend to be large and midsize organizations in the financial services, insurance and government sectors.

Strengths

- **Sales execution and pricing:** In the past year, Newgen's LCAP has grown in line with the overall growth in the LCAP market. Clients praise the cost-effectiveness and ease of use of the NewgenONE platform.

- **Market responsiveness:** NewgenONE upgrades include a modernized UI, enhancements for mobile app development, especially using native mobile features, and improved support for application monitoring.

- **Integration and APIs:** Newgen provides a wide range of prebuilt connectors to enterprise applications (such as SAP, Salesforce, Temenos and Guidewire), especially in the banking and insurance sector, to enable rapid integration with the platform.

Cautions

- **Marketing execution:** Gartner clients looking for LCAPs rarely mention Newgen among the top contenders. Primary interest in Newgen continues to be among clients looking for BPA or content services solutions.

- **Innovation:** With its product strategy, Newgen is catching up the leaders in this market. Capabilities like citizen developer features, UI design tooling and integration with OpenAI to introduce generative AI into the solution remain on the NewgenONE roadmap.

- **Geographic strategy:** Newgen's primary customer base is in India, the Middle East and Africa. It has increased its number of customers in North America and Europe, but these regions still remain a small part of the overall business. Also, Newgen's support for the internationalization of applications is limited to a relatively small number of languages when compared with market leaders.

Oracle

Oracle is a Challenger in this Magic Quadrant. Its LCAP offering is Oracle APEX, which runs on the Oracle Database. It is offered as a free-with-the-database feature, or as the APEX Application Development (APEX Service) on Oracle Cloud.

APEX differentiates itself from its competitors by exploiting Oracle Database features, using SQL as its expression language, and having a lower cost, including a free tier. APEX pricing is usage-based. This is better aligned with software delivery platforms (e.g., PaaS), while most competitors offer a SaaS pricing model based on the number of users and applications running on an LCAP.

Oracle's operations are based in the U.S., but it is represented across all regions. Its customer base is primarily large and very large enterprises across all vertical sectors. Midsize and small enterprise markets are generally managed through channel partners and inside sales.

Strengths

- **Overall viability:** Oracle is a major worldwide vendor, with a proven track record in revenue retention, growth and profitability. This combination of viability and the vendor's "free with Oracle Database licenses" pricing strategy (APEX Service is a separate paid-for offering, however) makes APEX extremely competitive for database-colocated workloads.

- **Operations:** Oracle is a major dbPaaS, IaaS and SaaS vendor running on its own 50+ data centers — more than any other LCAP vendor. It supports a global community of 700,000 APEX developers and offers many preloaded data assets/schemas for multiple industries.

- **Product strategy:** Oracle is proving its commitment to APEX development with the "customer zero" approach for complex application modernization cases of Oracle Cerner and Oracle CRM. This undertaking includes notable investment in upgrading platform architecture and improvements for developer experience and productivity.

Cautions

- **Third-party support:** APEX lives within the ecosystem of Oracle Database development. It has limited support for third-party agile planning and collaboration tools for developers and does not support native mobile app development for Android or iOS, outside of progressive web app (PWA) support.

- **Product:** APEX's dependence on Oracle Database limits architectural choices to those supported by Oracle's database team. APEX is still reliant on third-party tooling for business process orchestration (with APEX's own workflow due in a late 2023 release). Managed APEX is limited to Oracle Cloud today, although Oracle is planning multicloud-managed LCAP services in the future.

- **Innovation:** APEX remains in catch-up mode for features such as connectors to external data sources, development of custom APIs and creation of SaaS. Oracle hasn't announced its generative AI strategy. However, Oracle is aggressively addressing many of these issues in part due to the use of APEX in the Oracle Cerner healthcare system.

OutSystems

OutSystems is a Leader in this Magic Quadrant. Its LCAP is the OutSystems platform, with two product versions differentiated by the deployment model: OutSystems Developer Cloud (ODC), which offers vendor-managed deployment; and O11, designed for customer self-managed operations. Both platform versions can run the applications created in O11, but ODC presents a renewed architecture and developer experience including AI-assisted development.

OutSystems' market differentiation is based on an evolutionary approach to software engineering, where low-code development can be used to produce applications and application components of any complexity. As a developer-centric platform, OutSystems can be used as an out-of-the-box implementation for the platform engineering discipline, which remains one of the top strategic technology trends.

OutSystems' operations are primarily in Europe and North America and the vendor has recently built up a significant presence in APAC. Its largest vertical market is banking, finance and insurance.

Strengths

- **Product:** OutSystems offers advanced low-code capabilities such as AI-augmented development, native plus third-party continuous integration/continuous delivery (CI/CD), enterprise agile planning, and governance. Customers can choose between O11 and ODC based on their business and technical requirements.

- **Marketing execution:** OutSystems runs both top-down and bottom-up engagement initiatives. These include events for senior leaders (like thought leadership webinars, CIO roundtables and clinics), developer channels (like the Decoded podcast, tech talks and demos) and partnerships with global systems integrators (GSIs).

- **Operations:** With the release of ODC, many of the scaling limitations of the OutSystems platform — such as the speed of scaling a solution up and down — have been addressed with a new cloud-native, containerized architecture with independent runtimes for environments. ODC is also “evergreen,” meaning it is always on and always up to date.

Cautions

- **Pricing:** Customers often complain about the cost of licenses being an obstacle to extending the platform usage to additional business cases, or even keeping the OutSystems platform for accelerated application development. The pricing based on Application Objects (AOs) is a good idea for “taxing” the technical debt and promoting reusability. However, customers whose license was based on an unlimited option may see the cost increase after switching to AO-based pricing. Customers need to practice app sizing to plan the target budgets based on the number of AOs their subscriptions will use.

- **Operations:** Gartner clients have expressed concerns about the change of skills and effort required by the new deployment model and, in rare cases, the need for supporting both O11 and ODC.

- **Vertical industries:** OutSystems’ LCAP lacks vertical industry capabilities, meaning GSI partners and ISV engagement will be required for some customers to meet their business requirements. Customers seeking industry-specific domain expertise, native integrations or solution accelerators may find that other LCAP vendors offer more direct solutions.

Pegasystems

Pegasystems is a Visionary in this Magic Quadrant. Its LCAP is the Pega Infinity platform, which primarily competes in the BPA market, but it also offers multiexperience development, CRM and RPA for enterprise workflows. Its market differentiation is based on a full set of automation technologies, including process mining, digital experience APIs for B2C user interfaces, and distinct citizen and professional developer experiences.

Pega Infinity is available as a vendor-managed solution through Pega Cloud Services, hosted on AWS globally and on Google Cloud Platform in Europe and the Americas. Client-managed deployments are also available, including on-premises data centers.

Pegasystems’ operations are geographically distributed, with the majority of its customers in the North America and EMEA regions. Its customers tend to be large enterprises in the banking, insurance, government, federal agencies and healthcare sectors.

Strengths

- **Product:** Pega Infinity provides strong capabilities across UX design, application logic and workflow, and security for developing complex business applications. It has advanced capabilities to build chatbots, supports external popular design systems, and has a visual case designer to support modeling complex processes.

- **Market understanding:** Pegasystems showcases a good understanding of the market needs and has constantly evolved its product to support the emerging needs of the low-code market

with a strong focus on the security and scalability of applications. It is also planning to strengthen the platform with generative AI to support AI-assisted workflow and data object authoring.
- **Governance:** Pegasystems provides strong capabilities for governing application development. It offers detailed audit logs for development by different developer personas, granular component-level access rights, and a wide range of administration roles to support fusion team development.

Cautions
- **Sales execution:** Pegasystems' sales growth is slower than that of most other vendors in this Magic Quadrant. Gartner enterprise customers have reported concerns about return on investment (ROI) for some use cases, suggesting the cost of Pega Infinity's licenses and operations is too high for the benefits delivered.

- **Market uncertainty:** Some customers continue to express concerns about the long-term effects of Pegasystems' ongoing legal battles with a competitor. Until the conclusion of the open appeal, the uncertainty may continue to negatively affect prospects' buying decisions and investors' appetite.

- **Marketing execution:** End users continue to be less aware of Pegasystems' low-code capabilities than those of its main competitors in this Magic Quadrant. Many IT leaders view Pega Infinity as a proprietary BPA solution.

Retool

Retool is a Challenger in this Magic Quadrant. Its LCAP offering is the Retool platform. Its market differentiation is a low-code platform for professional developers building enterprise applications for use by both business and technology. Retool offers drag-and-drop application development combined with the use of JavaScript, HTML, CSS, Python and SQL. The data layer consists of the new Retool Database (a managed PostgreSQL database) and a library of native database and API integrations to connect to REST or GraphQL API endpoints.

Retool's operations are mostly located in North America, with smaller presences in the Europe and APAC regions. It is quickly expanding its market reach, with new customers looking for rapid development of line-of-business applications. Retool's new customers include SMBs and global businesses looking for a low-code toolset familiar and friendly to professional developers. Large enterprise customers make up the majority of Retool's revenue. The majority of Retool's clients are in the technology, retail and financial sectors.

Strengths
- **Overall viability:** Retool has established a very large developer community made of paying customers and an even larger community of nonpaying developers that can be targeted for sales leads. Revenue growth year over year and total funding raised put Retool in a strong market position.

- **Marketing strategy:** Retool is targeting professional developers, a market segment traditionally known for its poor awareness of or interest in LCAPs, but still a segment that has potential for growth. Software engineering leaders seeking improvements in productivity, as well as low-code approaches addressing more technical app use cases, will increase interest in this segment.

- **Market responsiveness:** Retool has released products for mobile applications (Retool Mobile), workflows (Retool Workflows) and a hosted PostgreSQL database (Retool Database) within the last year. It also has released a generative AI feature called Smart Block within Retool Workflows. Retool plans to release additional GenAI capabilities to improve the developer experience.

Cautions

- **Product strategy:** Retool can be complex for citizen developers as it targets professional developer audiences using low-code approaches to building internal software. The supported languages (such as JavaScript and SQL) make it easier for traditional developers with these skills.

- **Developer experience:** According to customer conversations with Gartner, the performance and ergonomics of Retool's browser-based integrated development environment (IDE) can be limiting, especially when building larger applications with complex queries and screens. However, Retool has rewritten its core application building runtime within the last year, which, it claims, improves page load time performance by up to 75% for complex applications.

- **Vertical/industry strategy:** Most of Retool's customers are in the technology and retail business, with a notably smaller portion in the financial services domain.

Salesforce

Salesforce is a Leader in this Magic Quadrant. Its LCAP offering is the Salesforce Platform. This is a suite of low-code and conventional development tooling, ranging from no-code visual designers (such as Lightning App Builder and Flow Builder) to IDEs for scripting and 3GL support for the Salesforce Apex language, and the Heroku aPaaS. Salesforce Platform runs on its own data centers and on certain AWS servers under the Salesforce Hyperforce initiative, enabling direct access to AWS services.

Salesforce's focus is on customer-related business operations with its SaaS for sales, marketing and service, with commensurate support from Salesforce Platform for customer-related business functions. Its business is geographically distributed, and its clients tend to be midsize to large enterprises that are already using its Sales, Marketing and Service SaaS products. Salesforce is focusing its Platform investments on Salesforce Flow and GenAI/data AI services, including secure large language model options.

Strengths

- **Industry strategy:** Salesforce has become the largest platform vendor and a market leader through layering Salesforce Platform and LCAP features on top of its industry cloud solutions.

Many vertical market solutions and SI partners further increase its industry coverage. This coverage and vendor size are attractive to many organizations and have led to continued growth.

- **Marketing execution:** Despite its size — 90% of Fortune 500 companies are Salesforce customers — Salesforce continues to push for the growth of its developer communities by investing heavily in developer relations and events such as Dreamforce, TrailblazerDX and various World Tours. These events touch very large numbers of customers and prospects.

- **Platform ecosystem:** The Salesforce ecosystem includes a number of significant technology and community aspects across iPaaS (MuleSoft), business intelligence (Tableau), messaging (Slack), AI (Einstein) and data (Data Cloud). The Salesforce marketplace (AppExchange has over 7,000 resources) and community (Trailblazer Community has 70,000 developers and over 2,000 community groups across 100 countries), combined with more than 900 workflows in the Flow library, create the largest low-code ecosystem at this time.

Cautions

- **Customer experience:** Salesforce Platform is seen as complex and difficult to learn, according to customer reviews and interactions. Multiple acquisitions have also led to concerns about multiple workflow engines including MuleSoft, MuleSoft RPA, Flow Orchestration, OmniScript and Slack.

- **Innovation:** There is a lack of priority and urgency for low-code platform features. Apex language programming on the Salesforce Platform may no longer be the ideal low-code abstraction level for business technologists who are looking for accelerated, model-driven, simplified yet powerful enterprise-level tooling.

- **Pricing:** Important features such as the Apex language debugger are available at an extra cost, and the freemium model is applied to encryption features.

ServiceNow

ServiceNow is a Leader in this Magic Quadrant. Its LCAP offering is App Engine, part of the Creator Workflows offering that sits alongside its integration hub and automation engine. ServiceNow's market differentiation is based on a wide set of platform capabilities that enable custom application development and extension of its software products such as IT service management (ITSM), and its support for fusion team collaboration and BPA. ServiceNow's strategy to expand beyond the core ITSM use cases is showing signs of success, with its customers considering it a strategic workflow platform.

ServiceNow is investing in building industry-specific solutions across financial services, public sector, manufacturing, telco, media and technology, healthcare and life sciences sectors. ServiceNow is driving GenAI advancements through partnerships with companies such as NVIDIA, Cognizant, Microsoft, Accenture and Hugging Face to address a variety of use cases — from text to ServiceNow code to case summarization.

ServiceNow's operations are geographically distributed, and its customers tend to be large enterprises and government organizations.

Strengths

- **Sales execution:** App Engine has seen significant growth in the adoption of its premium tiers, with more than 3,000 existing ServiceNow customers using App Engine to extend ITSM, HR or customer service management offerings. This showcases the success of the vendor's "SaaS as a platform" strategy.

- **Geography strategy:** ServiceNow is rapidly expanding its footprint beyond its core North American geography to APAC (excluding China), with dedicated sales and marketing focused on this region.

- **Market responsiveness:** Responding to the market needs, ServiceNow has strengthened its governance capabilities for fusion teams, invested in a wide-scale training program to address the need for growing ServiceNow application development professionals, and invested in ERP modernization solutions.

Cautions

- **Application logic and workflow:** ServiceNow doesn't support standards such as BPMN 2.0 or DMN, which are associated with process and decision modeling. These are often prominent requirements among enterprises focused on complex BPA scenarios.

- **Pricing:** ServiceNow SKU price levels and the complexity of its pricing are the concerns that Gartner clients repeatedly report in inquiries and on Gartner Peer Insights. ServiceNow is planning to add more sophisticated subscription management capabilities to enable enterprises to have more control and visibility into the cost of applications being built.

- **UX design:** Though ServiceNow offers a sophisticated Now Experience UI framework, it does not allow enterprises to use their own design systems or import design elements from tools such as Figma or Sketch. This restricts the development of applications where clients need more control over the UI elements.

Unqork

Unqork is a Niche Player in this Magic Quadrant. The Unqork platform provides a no-code, single-tenant architecture for solutions delivered through declarative assertions in a drag-and-drop interface. Privately held and founded in 2017, Unqork has targeted Global 1000 businesses in a few verticals and reports 31% year-over-year revenue growth.

Unqork initially focused on banking, financial services and insurance, and currently is attempting to expand into government and healthcare.

Unqork is extending its reach into Europe and APAC regions through global partners, including KPMG, EY and Infosys. Unqork has a range of security and privacy certifications, including SOC 2, HIPAA, GDPR, ISO 27001 and FedRAMP. Composability ("bring your own component") and AI-guided development are two areas of significant investment focus for Unqork.

Strengths

- **Market understanding:** Unqork's vision of the LCAP market is solution-centric, rather than focusing on the amount or type of code generated or prevented. Composability principles define platform and application design, with customers noticing the platform's flexibility and ease of use as the main benefits.

- **Marketing execution:** Unqork has a strong media footprint that helps to position it well in the enterprise customers market. Despite being a small company, Unqork manages to attract attention from global financial institutions and government agencies.

- **Customer experience:** Unqork's approach to LCAP is one of an open platform where developers should be able to customize the platform itself, not just the applications created with it. Unqork also invests in productivity features like formula autocomplete and real-time configuration analysis, laying a foundation for predictive configuration powered by AI/ML. Unqork features bidirectional integration with Atlassian Jira, Atlassian Trello and Asana using out-of-the-box plug-in components.

Cautions

- **Ecosystem:** Unqork is a small and ambitious startup with only a small fraction of the customer base of LCAP Magic Quadrant Leaders. The two-year-old Unqork Marketplace, which offers applications, templates, integrations and snippets primarily built by Unqork, is considerably smaller than those of its Magic Quadrant competitors.

- **Geographic strategy:** North America, specifically the U.S., dominates the Unqork customer base. The company needs to accelerate geographic expansion and build region-specific marketing and sales strategies to maintain progress toward its ambitious growth targets.

- **Pricing:** Customers' ROI may become a challenge for simple and small applications because Unqork cost is based on the number of applications running on the platform. Price also includes implementation support.

Zoho

Zoho is a Challenger in this Magic Quadrant. Its LCAP product is Zoho Creator, which can be used for customization and extension of other SaaS applications in the Zoho suite, general-purpose application development and adding features to external applications running independently from the Zoho suite.

Zoho aims to provide maximum out-of-the-box business capabilities using the SaaS model, so a self-managed version of Zoho Creator has functional limitations compared with Zoho-managed cloud deployments. Zoho differentiates in the market with a wide range of connected apps that implement features critical for SMBs.

Zoho is privately owned and its operations are geographically distributed. Its strengths are in manufacturing, professional services, technology, and education.

Strengths

- **Product:** Zoho Creator provides the development tooling expected of an LCAP. This includes graphical process, data and UI designers, with additional extensibility enabled by Deluge, its low-code application development language, along with support for Java, JavaScript, XPath and Node.js. The application development capabilities of Zoho Creator are supported by developer platform components of the Zoho suite, which help to automate deployment, configuration and monitoring tasks.

- **Pricing:** Zoho is one of the few vendors that reviews pricing strategy to maintain affordability and democratize the adoption of LCAPs. Most other vendors in this Magic Quadrant show a tendency to increase their platform prices to take advantage of the low-code/no-code hype.

- **Industry strategy:** Zoho remains agnostic to industry verticals while offering a wide range of business-specific capabilities useful to, and even critical for, most corporations. Zoho Creator inherits this approach, getting close to the specifics of business automation but maintaining its position as a general-purpose application development tool.

Cautions

- **Business model:** SMBs are dominant in the Zoho customer base, and Zoho Creator often remains unseen by many Gartner clients. Success with large enterprises requires further changes in Zoho's business model, product strategy and approach to the development of its partnership network.

- **Innovation:** Zoho Creator updates since May 2022 have mostly focused on functional enhancements and integration, while multiple innovation initiatives were completed for BI & Analytics and other products in the Zoho suite. The recent additions of NLP and RPA features strike as catching up with the industry.

- **Product strategy:** As a low-code application development tool, Zoho Creator is subject to a certain discord between the typical user profiles. Users of SaaS features would struggle to get on board with Zoho Creator due to their own lack of technical expertise. At the same time, primary users of Zoho Creator don't value SaaS offerings due to the lack of flexibility and control.

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.

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Added

We updated our 2023 inclusion criteria to recognize the increasing overlap between LCAP and MXDP (see Note 1) markets. Based on the changes, the following additional vendors qualified for this year's evaluation:

- HCLSoftware
- Globant (GeneXus)

Dropped

Two vendors that participated in 2022 were not included in the 2023 update of this Magic Quadrant:

- Alibaba — didn't meet the customer interest indicators (CII) criteria.
- Quickbase — positioned mainly in the collaborative work management space.

Inclusion and Exclusion Criteria

Each LCAP provider must meet the following criteria for inclusion in this Magic Quadrant:

- 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 and it must not only be a product bundled within some other solution or platform.
  - The LCAP must support the development and deployment of applications in a distributed environment across organizational structures of IT and business departments.
- Offer both **no-code and low-code capabilities** to:
  - Develop, version, test, deploy, execute, administer, monitor and manage the applications and their relevant artifacts.
  - Provide features to design data schema and application logic.
  - Support composition of internal and external data sources, including internal database and extendable connectors to external databases and APIs.
  - Create rich application user interfaces for web and mobile channels.

  - Enable the invocation of external third-party services via APIs and/or event topics.
  - Support some automation of platform patching and versioning.
  - Provide single-step deployment across environments (development, test, staging, production).
  - Access a platform repository or marketplace for sharing components, modules, connectors and templates.
- Its LCAP must be **enterprise-grade and aimed at enterprise-class projects** 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, by 31 March 2023, fulfill one of the following size requirement 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 more than 100,000 developers using the LCAP across all customers.
- **Consolidated market relevance index (CII):** A minimum score of 50% or above.
- **International presence:** The vendor must have direct customers (i.e., not through resellers) within three or more of the following geographies:
  - North America
  - South America
  - Europe
  - Middle East and Africa

- China
- Japan/Asia/Pacific

Honorable Mentions

Gartner's team of low-code experts track and review many more vendors and products than can fit in a Magic Quadrant. The Honorable Mentions section lists additional vendors to support the market research of IT leaders and investors looking for cost savings and unrealized potential. This year, we would like to extend honorable mentions to the following vendors and their LCAP products:

- AgilePoint LCAP enables composable architecture and targets business-led development of enterprise applications, with the catalog of packaged business and technology capabilities managed by IT. AgilePoint did not meet the inclusion criteria for size.
- Airtable offers an LCAP for creating data-centric applications. It may not suffice for deep customizations of UX, but its Interface Designer supports the development of visually appealing and intuitive apps. Airtable was not included due to the missing information required for vendor assessment.
- BettyBlocks offers an LCAP focused on composability. It is especially strong in the legal industry but has an industry-agnostic product strategy and serves multiple other industry domains. Betty Blocks did not meet the inclusion criteria for size.
- Joget released its LCAP product as open source, thus helping to address concerns about the depth of vendor lock-in and pricing. Joget did not meet the inclusion criteria for size and customer interest indicators.

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	Medium
Sales Execution/Pricing	High

Evaluation Criteria ↓	***Weighting*** ↓
Market Responsiveness/Record	Medium
Marketing Execution	Low
Customer Experience	Medium
Operations	Low

Source: Gartner (October 2023)

Completeness of Vision

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

Table 2: Completeness of Vision Evaluation Criteria

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

Evaluation Criteria ↓	***Weighting*** ↓
Innovation	High
Geographic Strategy	Medium

Source: Gartner (October 2023)

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. This year's Leaders are again Mendix and OutSystems, and the SaaS platform vendors (whose LCAP complements their SaaS offerings) are Microsoft, Salesforce and ServiceNow. Appian returned to the Leaders quadrant thanks to strong growth indicators, significant investment in customer success initiatives and global expansion.

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 vision required to expand their offering beyond their core customers to serve different types of buyers and needs. This year's new participant HCLSoftware, along with last year's new additions Zoho and Retool, join Oracle in the Challengers quadrant. These Challengers put pressure on Leaders with increasing solution diversity.

Visionaries

Enterprise LCAP Visionaries demonstrate good strategic vision and potential but may fall behind the competitors in the execution of their strategy. This year's Visionaries are Pegasystems, the newly added mature MXDP vendor Globant (GeneXus), and Creatio, which has notably improved on its original Niche Player position thanks to an innovative approach to marketing, sales and investment in the platform expansion. There are also multiple smaller specialist vendors not in this Magic Quadrant that have a compelling vision and specific use-case support, and ought to be considered if the execution track record is not a priority for evaluation.

Niche Players

Enterprise LCAP Niche Players are vendors that focus on a specific area of the market or have a regional geographic footprint. While they have not demonstrated the strongest Completeness of Vision or Ability to Execute in application platforms relative to other evaluated vendors, qualifying for this Magic Quadrant is an accomplishment in itself (versus the hundreds of other vendors that market their products as LCAPs). Niche Players in the LCAP market may also be high performers in other areas such as business process automation (like Newgen and Unqork), content services (Newgen) or citizen development (Kintone), and can be more suitable for specific application use cases. Therefore, this year's Niche Players are Huawei, Kintone, Newgen and Unqork.

Context

New waves of digital transformation continue to challenge the state of business capabilities across all verticals and create opportunities for technology disruptions. Modern IT leaders cannot afford to rely solely on traditional, high-code application development approaches. They must accept the march of progress to higher abstraction levels for application development and embrace low-code platforms to accelerate application development. LCAPs also provide opportunities for organizations to stay up to date with the most recent practices — for example, platform engineering and technology innovation like AI-assisted application development and, specifically, the recent trend of generative AI.

As a result, LCAPs for a variety of developer audiences are becoming mainstream. Even conservative IT organizations that have previously resisted modernization and automation are exploiting LCAPs to move to the cloud, enable mobile user experiences, address skills and resource shortages, and achieve faster time to market for their products and services. Progressive IT organizations are exploiting low-code platforms for commodity application services, such as basic data-oriented applications, and use composable architecture to layer low-code on the mission-critical, API-enabled products, such as SaaS and hand-coded custom proprietary services.

IT leaders should consider three main areas:

1. **Technology fit:**

- **Analyze** your use cases and business needs carefully to deliver the best results from an LCAP (see Critical Capabilities for Enterprise Low-Code Application Platforms).

- Compare these needs against the technology offerings in LCAP versus **alternative overlapping low-code markets** such as multiexperience development platforms (MXDPs — see Note 1), business process automation (BPA), integration platform as a service (iPaaS) and citizen automation and development platforms (CADPs).

- Ensure LCAP implementations **interact with the business processes,** which should be identified and optimized first. Consider either an LCAP with strong built-in business process capabilities or use complementary business process services that can be called from your LCAP as needed.

- Exploit **composability and modularity** as all enterprise LCAPs can call external services, including self-built APIs and bought API services such as SaaS. This enables LCAPs to handle almost unlimited complexity in applications, as sophisticated functionality can be delegated to external services in a composite manner.

- Strategize on how the enterprise LCAP solution will fit into existing **application architectures** and strategic tool investments, especially in terms of integration effort, compatibility with existing design systems and agile frameworks, and existing services.

2. **Commercial considerations:**

- Define all immediate requirements and anticipate application needs for the **next two to three years** to avoid having to replace platforms for new use cases. Take special care on pricing considerations and ensure that contracts cover future usage to avoid renegotiating.

- Evaluate LCAP options prior to major investments by utilizing free or evaluation versions with at least one **proof of concept** to become familiar with the developer experience and platform functionalities.

- Evaluate the long-term effect of **subscription costs** versus the cost of traditional application delivery using the total cost of ownership (TCO) metrics. Compare products with similar capabilities and prices.

- Understand and communicate to business stakeholders the potential pitfalls of using LCAPs, including **vendor lock-in** and **usage-based pricing**.

3. **Developer talent and skills:**

- Select an LCAP that suits your **developer persona** best, such as tools like Microsoft Power Platform and Creatio for citizen developers, and tools like Mendix and OutSystems for full-time IT and business-led developer teams.

- Exploit **fusion team collaboration** approaches to maximize developer productivity. This may mean educating other leaders in your organization that low-code platforms are not just for citizen developers. It may also imply using platforms that support multiple developer personas like Appian or Pega Infinity.

- Evaluate the maturity of the LCAP's developer and partner community support, as well as its **ecosystem** of connectors, templates and prebuilt business and technology services.

- **Train** low-code developers in both business and IT prior to app development. Consider dedicated focus initiatives like enabling/platform teams, the center of excellence or community of practice, instead of relying solely on the LCAP vendor or its partners.

Market Overview

The enterprise LCAP market is part of an overall low-code development technologies market that also includes MXDP, iPaaS, RPA, BPA, CADP, and other much smaller segments. The low-code market is projected to reach $44.5 billion in revenue by 2026 (with a compound annual growth rate [CAGR] of 19.2% from 2021 through 2026). Specifically, the LCAP segment is projected to expand to more than $18 billion in 2026, with a CAGR of more than 20%.

The rapid increase in enterprise adoption and usage of enterprise LCAPs is driven by three key trends:

- **Enterprise adoption:** The types of enterprises and users (whether they be from IT or business units) are key influencing factors that are driving the adoption of low-code development technologies. Democratization and citizen development initiatives are also fueling enterprise adoption of low-code development technologies. These initiatives are not just limited to professional IT developers looking for speedy application delivery; they also apply to the kind of no-code development tools used by citizen developers (business technologists) within business units.

- **Hyperautomation:** Hyperautomation involves the orchestrated use of multiple technologies, tools or platforms. LCAPs have emerged as a key component of successful hyperautomation, with low-code development tools being among the three tools used the most (based on frequency and volume) to support automation initiatives.

- **Composable business:** Organizations are adopting application composition technologies that enable fusion teams to implement composable applications. LCAPs are one of the key technologies that drive greater exploitation of application services, functionalities and capabilities.

The vendors in this Magic Quadrant are all providing enterprises with various capabilities and services and successfully delivering applications to their customers. However, the market continues to expand with more vendors appearing throughout 2022 and 2023.

Acronym Key and Glossary Terms

3GL	third-generation language
aPaaS	application platform as a service
AR	augmented reality
BPMN	Business Process Model and Notation
DMN	Decision Model and Notation
FedRAMP	Federal Risk and Authorization Management Program
GDPR	General Data Protection Regulation

HIPAA	Health Insurance Portability and Accountability Act of 1996 (U.S.)
IoT	Internet of Things
IP	intellectual property
NLP	natural language processing
SG&A	selling, general and administrative
UX	user experience
VR	virtual reality

Evidence

Globant Acquires Low-Code Platform GeneXus to Foster Business Reinvention and Expand its Product Portfolio, GeneXus by Globant.

Note 1: Multiexperience Development Platforms

MXDPs are the adjacent market for LCAPs, with significant overlap in target use cases and application development features.

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.