

## Magic Quadrant for Multiexperience Development Platforms

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Multiexperience development platforms provide software engineering teams with a productive way to create rich, interconnected user experiences across web, mobile, conversational, digital twin, IoT and AR applications. This research evaluates MXDP vendors based on their vision and execution.

**This Magic Quadrant is related to other research:**

[Critical Capabilities for Multiexperience Development Platforms](#)

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### Strategic Planning Assumption(s)

By 2026, three in four enterprises will use a multiexperience development platform to build digital products (up from 20% in 2021).

By 2026, three in four enterprises will use a multiexperience development platform to bridge IT and OT application experiences (up from 5% in 2021).

### Market Definition/Description

Great organizations don't build siloed applications. They build seamless, interconnected application experiences for their employees and customers that span multiple devices, touchpoints and interaction modalities.

A multiexperience development platform (MXDP) offers development teams an opinionated and integrated set of front-end development tools and “backends for frontends” capabilities. It enables distributed and scalable development (both in teams and architecture) of fit-for-purpose apps across digital touchpoints and interaction modalities.

This research focuses on 13 MXDPs that you can buy from vendors who are able to execute and have the vision to meet the demands of the market.

At a minimum, an MXDP must support cross-platform development and building of custom iOS and Android app binaries and responsive web apps, as well as at least four of the following:

- **Progressive web app (PWA):** Demonstrate PWA service worker support within the MXDP.
- **Chatbot:** Demonstrate built-in chatbot framework or tight integration within the MXDP to external bot frameworks (such as Amazon Alexa/Lex, IBM Watson, Google DialogFlow or Microsoft Azure Bot Framework).
- **Voice:** Demonstrate built-in NLP and speech-to-text or tight integration within MXDP-to-voice platforms (such as Amazon Alexa, Google Assistant, Baidu or Tencent).
- **Wearables and IoT:** Demonstrate wearable and/or IoT support within a development tool (such as Apple Watch, Wear OS, Tizen, Harmony OS or HoloLens).
- **Augmented and mixed reality:** Demonstrate immersive UI support within MXDP (such as iOS ARKit, Android ARCore, WebXR or Wikitude).

To be included in this Magic Quadrant, vendors had to offer a platform that met this definition.

Some MXDP vendor offerings overlap with the low-code application platform (LCAP) market. While most MXDPs do support low-code methods to help improve developer productivity, low-code-oriented MXDPs must also support more technical development tools and custom coding. Low-code development is not the primary purpose of MXDPs. Rather, they are designed to help software engineers to create apps that, with their sophisticated user experience, allow people to use the devices, touchpoints and interaction modalities they prefer while having a consistent, seamless experience as they transition between them. All MXDPs must meet the above definition and provide the requisite capabilities, regardless of whether they use low-code development approaches.

The MXDP market includes some of the largest enterprise software vendors. Software engineering leaders frequently evaluate Salesforce, SAP and ServiceNow based on their incumbent positions for many SaaS and PaaS products. While Amazon, Google and Microsoft all offer individual developer tools and services that complement an MXDP, none of them offer an integrated platform.

In this Magic Quadrant, there are three new entrants: Builder.ai, HCL and Neutrinos. Their entry shows that this market is not confined to the largest vendors and that multiexperience (MX) innovation is increasing. As the MXDP market becomes more competitive — with vendors improving their ability to execute, and demonstrating more complete visions — we have raised our expectations. The updated criteria have contributed to shifts in the positioning of several vendors (see Figure 1).

## Magic Quadrant

Figure 1: Magic Quadrant for Multiexperience Development Platforms



## Vendor Strengths and Cautions

### Appian

Appian is a Challenger in this Magic Quadrant. Its MXDP product is marketed as a low-code automation platform that broadly focuses on mobile, web, conversational, wearables and IoT apps.

Its operations are based in North America, but it also has an increasing presence in the EMEA and APAC regions. Its customers tend to be large enterprises, mostly in the finance and government sectors. In 2020, Appian created a container for its Self-Assembling Interface Layer (SAIL) architecture for offline operation of dynamic mobile apps. This is supported by a business rule execution language for dynamic UX logic with local processing of complex application logic while offline.

### Strengths

- **DevOps support.** Appian provides integration and supporting APIs to manage deployments with third-party continuous integration/continuous delivery (CI/CD) tools like Jenkins. These features allow customers to fully control their deployment automations via an external CI/CD tool. Its platform also allows users to configure unique security settings for all design objects within an application to ensure access management.
- **Back-end for front-end (BFF) pattern.** Appian provides a tightly integrated, low-code development and execution environment. All objects built in Appian can inherently refer to each other via Appian's interpreted execution architecture. Appian provides a low-code designer for modifying and publishing custom web APIs with a specific endpoint and custom security model for access management.
- **Process and workflow orchestration.** Appian provides a business process model and notation (BPMN)-compliant tool that allows designers to build processes with drag-and-drop functionality. Appian's designers include expression rules for building logic; decision rules using a no-code decision model and notation (DMN)-compliant decision table designer; and native AI rules for document understanding and natural language processing (NLP) sentiment analysis.

### Cautions

- **Designer experience and DesignOps.** Multiple customer reviews in Gartner Peer Insights have expressed concerns with Appian's UI. These customers reported that it is not as intuitive as its competitors.

- **Developer experience.** While Appian markets its product as a low-code automation platform, multiple customers felt that Appian was better targeted for developer-oriented tools, and that nontechnical business users would find the platform challenging to use without additional support from Appian.
- **Market responsiveness.** Appian lacks support for PWAs, a capability that customers expect in an MXDP. Other innovations in Augmented and Mixed reality are not native and only supported through custom extension development.

## **Builder.ai**

Builder.ai is a Visionary in this Magic Quadrant. Its MXDP product builds on common components seen in applications and uses AI and machine learning to assemble components and quickly build new applications. This approach allows both developers and nontechnical business users to automatically assemble the desired functions (often by mirroring the functionality of other applications with which the user is familiar).

Builder.ai's operations are mainly focused on APAC and the U.S. with expansion to Europe and the Middle East. It partners with Microsoft and offers its platform on AWS and Azure. Its customers are spread across a wide range of industries, with many customers in retail and education.

## **Strengths**

- **Innovation.** Builder.ai has a unique way of building applications. Users can select an existing application that they know (or identify a set of capabilities they want to have) and then use AI and machine learning to assemble the components needed to build the application. The company also contracts professional developers to support custom coding for unique needs.
- **Customer experience.** Builder.ai provides a simple user experience. It can be used by both nontechnical personnel (such as citizen developers) and professional developers to easily and rapidly build applications. The company claims to have much lower failure rates than that of traditional development approaches.
- **Market understanding.** The Builder.ai approach is dramatically different from most platform providers. It could appeal to businesses that have been frustrated with traditional contract development services. While the market has not yet embraced this approach, Builder.ai's unique approach has potential.

## **Cautions**

- **Overall viability.** Builder.ai is a new entrant to the market and is relatively small. It is well-funded and has some strong partnerships, but its dramatically different approach to this market could be risky. While the use of AI and ML in application building is innovative, its business model is a radical departure from market norms.
- **Sales execution/pricing.** Builder.ai's pricing is on an application-by-application basis, with no standard pricing. This will be challenging for some enterprises, as this pricing model most closely mirrors custom development professional services.
- **Marketing execution.** The Builder.ai strategy requires enterprises to reassess their approach to building custom applications. This change is not an easy value proposition to communicate. Its effectiveness will depend on the company's ability to demonstrate a high success rate and a time-to-market advantage.

## GeneXus

GeneXus is a Visionary in this Magic Quadrant. Its MXDP product consists of GeneXus Server, Genexus Web, Genexus BPM Suite, and GXTest, which focus on creating digital experiences across all modalities. GeneXus has improved its platform capabilities for web, augmented reality and conversational apps.

Its operations are mainly in South America and the APAC region, with some presence in North America. GeneXus provides localized platforms in each region. Its customers tend to be SMBs and small enterprise customers. In 2020, GeneXus released a localized version of its platform for customers in China. It is also investing in "superapp" creation using popular platforms across global consumer app marketplaces.

## Strengths

- **Product strategy.** GeneXus offers licensing by individual developer, among other license models, which can enable users to quickly scale without the complexity of license true-ups or platform usage audits. GeneXus maintains a global view of mobile and wearable development trends, including its focus on building superapp capabilities.
- **Customer experience.** GeneXus received one of the top three highest scores for overall experience in Gartner Peer Insights. It invests in local support labs and customer satisfaction teams to connect larger clients with both external partners and internal product teams. GeneXus certified partners offer training, developer certification, implementation and technical support in 55 countries.

- **Innovation.** The GeneXus Platform enables developers to build PWAs, augmented reality experiences and deploy serverless components, among other functions. Customers are able to deploy their microapps in existing superapps such as WeChat, as well as create their own native super-apps. The GeneXus Platform also provides integrations for design tools (such as Sketch) and IoT platforms (such as AWS IoT Core).

## **Cautions**

- **Vertical/industry strategy.** GeneXus focuses on the technical outcomes and experiences that are enabled by its platform, but it does not provide targeted solutions for specific verticals. It plans to launch a Solutions Catalog to promote successful use cases and certified partners.
- **Marketing execution.** GeneXus' marketing execution varies based on its product localization. Given its recent release of a localized platform for users in China, customers in the APAC region will likely find helpful webinars, social media content and online community engagement. Customers outside of APAC and South America may have limited exposure to GeneXus' developer support.
- **Operations.** GeneXus received an average score for its user community in Gartner Peer Insights (compared to its competitors). GeneXus' developer Wiki site offers both historical and current material. Customers should manage their expectations about the level of operational support they will receive from the vendor and its user community.

## **HCL Software**

HCL Software is a Visionary in this Magic Quadrant and is a new entrant for 2021. Its MXDP product, HCL Volt MX, covers a broad array of MX use cases, with an emphasis on helping customers produce distinctive mobile experiences (using both native apps and PWAs).

Its operations are geographically diversified, and its customers tend to be large enterprises. The primary industries it targets are manufacturing, energy and utilities, government, healthcare and retail. HCL continues to build on the strong MXDP platform it uses via an exclusive partnership with Temenos. HCL plans to invest in both an AI developer kit and AI-augmented developer experience.

## **Strengths**



- **Product strategy.** HCL Volt MX is a solid, well-rounded MXDP with an emphasis on developing performant native mobile experiences. Its app groups allow customers to reuse microapps with best-in-class API and integration support.
- **Business model.** HCL Volt MX complements its DXP and Domino products to provide a full development suite for developing employee- and customer-facing applications. HCL's global professional services offer support for customers in building their MX solutions, and its extensive partner network provides solutions based on HCL Volt MX.
- **Industry and geographic strategy.** Customers have deployed HCL Volt MX in all major industry verticals, with the support of an accelerator team that builds templates and turnkey solutions. HCL's global presence and diverse industry experience allow customers to localize solutions quickly by producing MX applications that auto-translate and auto-update language formatting.

## **Cautions**

- **Marketing strategy and execution.** Despite a solid product and business model, HCL's ability to clearly articulate this vision is limited. Customers often express confusion about VoltMX's fit in its portfolio, and some remain unconvinced about HCL's ability to be their partner for MX needs.
- **Sales execution and pricing.** HCL Volt MX receives less attention in our inquiries for MXDPs compared to products from other Visionaries. The rapid change of ownership of the MXDP from Kony to Temenos, and now to HCL has confused customers. Complicated pricing has been one of the deterrents. HCL has responded with simplified pricing models that should make their MXDP attractive going forward.
- **Operations.** Compared to Leaders in the MXDP market, HCL lags behind in developer outreach programs, such as conferences and forum activity. While HCL has a rich MXDP marketplace, developers cannot monetize the apps they submit — limiting their incentive to build third-party solutions on HCL Volt MX.

## **Mendix**

Mendix is a Leader in this Magic Quadrant. Its MXDP product, Mendix Platform, focuses on helping designers and developers to build a broad range of multiexperience applications, with a special focus on IoT and digital twin use cases.

As an independent subsidiary of Siemens, Mendix maintains a unique identity while leveraging Siemens' global presence across industrial sectors to deliver its features. Mendix's customers are mostly large and midsize enterprises. Mendix is focused on its expansion in China and on delivering immersive, ambient applications at the edge.

### **Strengths**

- **Product strategy.** Mendix combines its Atlas UI Design platform with its intelligent application development platform to deliver an integrated DesignOps environment for both citizen developers and professional developers. Its offline-first, client-side workflows enable real-time connectivity between IT applications and operational technology (OT) applications.
- **Business model.** Mendix is enabling customers to self-evaluate and purchase its platform without relying on an enterprise sales cycle. Its emphasis on consumer-scale pricing is accelerating its growth in digital commerce applications. Mendix industry-specific cloud offerings will enable customers to go to market quicker. Mendix's strategy to OEM its platform on the Tencent cloud creates opportunities for adoption by customers in China.
- **Market responsiveness.** Compared with other vendors, Mendix has been more responsive in enabling their customers to develop real-time applications that span IT and OT including Digital Twins and Digital Threads. Mendix has enhanced their Data Hub with more and easier API integration, as enterprises grapple with demand for richer information in their UX. Mendix has made their workflow ecosystem compliant with evolving BPMN, a standard that customers are increasingly adopting for interoperating with other workflows in their enterprise.

### **Cautions**

- **Marketing execution.** Mendix relies heavily on Siemens brand recognition and marketing to promote its products. Its marketing often does not target professional developers, and it tends to overemphasize low-code approaches (as opposed to MX capabilities).
- **Innovation.** Mendix's AR and MR capabilities have improved but continue to lag other Leaders in the MXDP market. Its organic growth in AI/ML capabilities may not match the capabilities acquired by competitors via M&A. Its MXDP customers should be concerned about its lack of interoperability with popular design platforms, such as Adobe XD and Invision. Its lack of integrated support for popular serverless computing infrastructure is hindering adoption by potential customers.

- **Developer experience.** A few customers expressed disappointment that Mendix, despite being a leader in this quadrant, does not provide a super-app development and deployment experience. Gartner's clients have indicated that owing to the sophistication of the Mendix platform, the learning curve to master it can be steeper when compared to other platforms featured in this Magic Quadrant. The Mendix platform allows extensions to be written in different programming languages, hence customers should be careful to limit the number of languages that need to be maintained.

## **Neptune Software**

Neptune Software is a Niche Player in this Magic Quadrant. Its MXDP product, Neptune DXP, delivers a wide range of applications — with an emphasis on applications that are a front end to SAP back ends. The platform can build web, progressive web, AR, mobile and edge-focused IoT applications, and it can integrate into conversational solutions. Its low-code development platform enables both citizen developers and professional developers to use components to build applications.

Its operations are mainly focused on Europe with subsidiaries in the U.K. and U.S. Neptune Software's customer base includes small and medium businesses as well as large enterprises and government entities with the majority being small and medium businesses. Neptune's emphasis on building applications that deliver access to SAP make it appealing to organizations that use SAP applications.

## **Strengths**

- **Market responsiveness.** Neptune changed its pricing model from a perpetual license model to a subscription model in response to customer feedback. This indicates that Neptune is listening to its customers and adapting.
- **Customer experience.** Neptune's focus on component-centric, low-code development makes the platform accessible to both citizen developers and professional developers, enabling them to deliver functionality quickly.
- **Marketing strategy.** Neptune's focus on SAP is appealing to the many enterprises that run their business on SAP as it allows for easier integration and rapid value creation to enhance the SAP application suite.

## **Cautions**

- **Market understanding.** Neptune's focus on SAP limits its appeal as a general-purpose MXDP platform. While it simplifies application development in SAP-centric scenarios, its value proposition as a general-purpose MXDP platform outside of this context is yet to be demonstrated at a larger scale.
- **Product.** The Neptune platform delivers hybrid mobile apps that are reliant on Cordova, which is based on Adobe's discontinued PhoneGap technology. Neptune has not identified any new changes to its framework, which raises questions about the hybrid architecture that is central to its platform.
- **Overall viability.** Neptune has been in business for a decade, yet has not experienced the same level of growth as other MXDP vendors. The company's historic slow growth is changing with recent investment of new capital and resulting acceleration of growth as well as planned new features that could further accelerate growth..

## Neutrinos

Neutrinos is a Niche Player in this Magic Quadrant. The Neutrinos MXDP platform supports the creation of web, mobile, progressive web and IoT apps, and it supports easy integration of conversational apps built on other frameworks. It does not support AR/VR app creation. The Neutrinos platform is based on open-source technologies, which helps customers avoid vendor lock-in.

Its operations are geographically distributed, and its clients tend to be small businesses. Its platform helps companies convert customer experiences to digital experiences via a low-code development platform with differentiated integration capabilities. While it is a small company, its revenue is growing substantially.

## Strengths

- **Market understanding.** Neutrinos' focus on open-source technologies is appealing to a wide range of enterprises. Neutrinos also demonstrates a clear understanding that app development centers on integration with back-end and supporting systems to drive the functionality of the application.
- **Innovation.** Neutrinos offers a "what you see is what you get" tool for creating integrations. Its portfolio of connectors and associated marketplace provide developers with integration advantages compared to competing offerings.
- **Overall viability.** Neutrinos' financing is bootstrapped, meaning it does not carry debt that constrains its flexibility in advancing the business and the platform. This also allows Neutrinos to be more responsive to customer needs in unique situations.

### **Cautions**

- **Sales execution.** Neutrinos has a freemium strategy for its platform. This approach is appealing to small development firms but has limited appeal for the larger enterprises that it is targeting.
- **Product.** The Neutrinos platform delivers hybrid mobile apps that are reliant on the Cordova framework. As PhoneGap, on which this framework is based, is no longer supported by Adobe, it calls into question the hybrid architecture that is central to the Neutrinos platform. The company has not identified a change in direction on frameworks.
- **Marketing execution.** While Neutrinos is enjoying significant growth, the company is still quite small. It will likely need to secure investment beyond its bootstrapped funding to remain viable in the market.

### **OutSystems**

OutSystems is a Leader in this Magic Quadrant. Its MXDP product, the OutSystems Platform, delivers web, mobile, progressive web, and wearable application development and offers easy integration of conversational and AR/VR applications. OutSystems' low-code platform offers greater productivity to development teams by focusing on the creation of reusable components, such as UI, headless, business logic, processes, integrations and edge deployments.

Its operations are geographically distributed, and it has a strong installed base of enterprise customers. OutSystems was an early pioneer in MXDPs and is well-funded for continued growth.

### **Strengths**

- **Market understanding.** OutSystems continues to anticipate changes in the market, as evidenced by its focus on multiple modalities and early support for low-code development. It continually shows the ability to incorporate new capabilities (such as AI-enabled tooling) just as the need emerges in the market.
- **Innovation.** The OutSystems platform uses emerging technologies to differentiate itself, including strong use of AI and machine learning to enhance platform features. Its focus on components and reusability in a low-code environment enables high developer productivity.

- **Sales execution.** The company recently simplified its pricing plan to help customers monitor the cost of using its platform. It moved away from an application object metric to adopt a user-based pricing model that is easier to understand.

## **Cautions**

- **Product.** The OutSystems platform delivers hybrid mobile apps that are reliant on Cordova, which is based on Adobe's discontinued PhoneGap technology. This raises questions about the hybrid architecture that is central to its platform. However, OutSystems has shown some support for migrating to the ReactNative framework, but does not yet support the full framework.
- **Vertical/industry strategy.** OutSystems has succeeded across many industries and vertical markets, but it does not appear to have a differentiated market-specific offering. OutSystems relies on partners to deliver specialized products in specific verticals. This may be an opportunity for the company to expand its appeal in selected industry markets.
- **Innovation.** The company's platform relies on the integration of third-party solutions to develop conversational applications. Despite OutSystems' many innovative features and capabilities, the company has an opportunity to offer more of these natively its platform.

## **Pega**

Pega is a Niche Player in this Magic Quadrant. Its MXDP product, part of Pega Infinity, focuses on mobile, AR, IoT and conversational app development for both citizen developer power users and professional developers.

Pega's operations are global, and its MXDP is used by large enterprises in the banking, finance and insurance, telecom and public sectors. Pega's DX-API and Process Fabric hub provides developers with robust capabilities to build a BFF for typical microservices developments, but its product roadmap does not include any MXDP features that differentiate it from its competitors.

## **Strengths**

- **Process and workflow orchestration.** Pega's strength lies in low-code development for intelligent process automation using the Pega Infinity platform. Pega Infinity is also unified with a decision management PaaS that includes complex event processing, AI models, predictive analytics and the ability to execute directly into process and case flows that support mobile apps.

- **Back-end for front-end pattern.** Pega's DX-API/Process Fabric offers a good environment for building BFF for typical microservices development like Node.js, Java, or Swift. It uses methods such as calling back ends in parallel and filter/transform responses, and Pega provides additional security via OAuth Pega's Process Fabric for both microservices and miniservices.
- **Microapp and superapp patterns.** Pega's DX-API/Process Fabric creates "layers" of behavioral and circumstantial app behavior that are supported via multiple inheritance. Developers can reuse and customize these layers across microapps. The case state of these microapps is persisted and reconciled via Pega's event model. This has been extended to distributed business ecosystems to allow persistence across multiple entities in Process Fabric.

## Cautions

- **Offering strategy.** Due to Pega's focus on business process automation and digital transformation, its MXDP is more of an ancillary offering. In 2020, Pega added only a few new MXDP features to its platform — enhancements to its NLP and Channel Hopper — and its offering has evolved at a slower pace compared to its competitors.
- **Marketing execution.** Pega's MXDP offering lacks widespread awareness among potential customers. Pega competes in the BPM, RPA, CRM and low-code application platform markets, which have similar messaging and can be difficult for customers to differentiate.
- **Customer experience.** In Gartner Peer Insights, a few clients on older versions of the software stated that they felt Pega's developer experience is complex, takes time to learn, and can be confusing. Some clients indicated that they required extensive technical assistance to set up the platform.

## Salesforce

Salesforce is a Leader in this Magic Quadrant. Its MXDP is the Salesforce Customer 360 platform — which includes Heroku, Salesforce Mobile SDK, Mobile Publisher, Einstein Voice and Einstein Bot Builder — can be used to support multiexperience development by both nontechnical business and professional developers with advanced SDKs.

Its operations are geographically diversified, and customers come from a variety of industries. Hyperforce is Salesforce's new multicloud platform infrastructure that powers its Customer 360 Platform and other Salesforce products. Hyperforce uses cloud-native architecture to support public cloud providers, enabling customers to deliver multiexperience apps with greater security, speed and scale. Hyperforce will be deployed in several additional countries by 2022.

## **Strengths**

- **Developer experience.** Salesforce provides a variety of low-code approaches to web app, mobile app and chatbot development, which are supported by extensive training available from its Trailhead community. Its Einstein Bot Builder plugs into the Customer 360 Platform to provide an integrated developer experience. Salesforce Lightning Design System helps enforce UX consistency for development teams.
- **Innovation.** Salesforce has acquired Slack Technologies. Salesforce will combine Slack with Salesforce Customer 360. Slack's open platform integrates with more than 2,400 apps. Einstein Automate is a new initiative that will unify automation technologies across Salesforce's platform, including MuleSoft, Vlocity and AppExchange. Salesforce's vision for the product is to deliver an end-to-end workflow solution for guiding employee and customer experiences.
- **Viability.** Salesforce's rapid growth rate is atypical of companies with more than \$20 billion in revenue. It is gaining market share in several large technology markets, including enterprise applications, integration technologies, analytics and BI, collaboration and application platforms.

## **Cautions**

- **Offering strategy.** Salesforce seems intent on integrating deeply with Slack as its new interface for communications and collaboration across all products, including the Customer 360 platform. Customers should monitor how Salesforce will compete in the workplace collaboration tool market and plan for the potential impact of significant technology changes involving Slack.
- **Augmented and mixed reality support.** Although Salesforce offers SDK integration into ARKit, ARCore and other hooks that can be leveraged via the model viewer web component, it relies on ecosystem partners to deliver advanced AR/VR capabilities. The platform requires the Einstein Vision service to create enhanced experiences. Einstein Vision APIs are limited to sales, support and marketing contexts only.



- **AI services.** Salesforce Einstein Sentiment and Einstein Intent are less robust than the conversational APIs offered by some of its competitors. Salesforce's MXDP offering may not be well-suited for organizations seeking a more comprehensive set of NLP API services for developing conversational apps.

## SAP

SAP is a Leader in this Magic Quadrant. Its MXDP product, the SAP Extension Suite, powering SAP Business Technology Platform, consists of SAP AppGyver, SAP Business Application Studio, SAP Conversational AI, SAP Mobile Development Kit (MDK), and the SAP Fiori design system and design platform. Its offering is mainly focused on enabling customers to develop SAP MX applications by using no-code, low-code or pro-code approaches.

SAP's operations are global, and its customers are mostly large enterprises across many industries. SAP continues to invest in the designer experience with its Fiori design system and platform, while providing an integrated developer environment for a productive DesignOps experience.

### *Strengths*

- **Market understanding.** SAP provides an integrated MX application development experience with digital assistants, reusable UI and microapp components. SAP provides thousands of components, both out-of-the-box and via its marketplace.
- **Product strategy.** SAP is focusing on best-in-class experiences for each device, including mobile (native), web (W3C standards, PWA specifications) and interaction modalities. The expansion of SAP mobile cards into a MX microapp architecture allows developers to reuse more components and achieve faster throughput when composing new MX apps.
- **Sales execution.** SAP has a massive existing customer base, and adoption of its MXDP within its existing customer base grew significantly in 2020. SAP's growth is partly driven by its innovative, dual pricing system which has both pay-as-you-go and credit-based options. This pricing model enables B2C application development by reducing prices for high-volume workloads with low-intensity transactions.

### *Cautions*

- **Marketing strategy and execution.** Some customers continue to use SAP partner platforms for MX development and do not perceive SAP as a platform for building these experiences. SAP customers should evaluate its developer platform, knowledge base and community resources to develop new digital products that extend SAP's core platform.
- **Innovation.** While SAP has enhanced its no-code development experience via its AppGyver acquisition, its MX innovation lags its competitors. SAP MXDP customers will miss AI/ML enhanced capabilities to help with modeling, code generation and application composition. SAP is currently investing in this area of opportunity. Customers wanting to develop superapp and microapp capabilities will need to search for product information in SAP community forums, published use-cases, and SAP's app store.
- **Operations.** Customers of SAP MXDP cannot choose when to upgrade to new versions. Therefore, customers with complex SAP environments, such as those with modified on-premises environments, need to carefully align their change management plans with SAP's release schedule.

## **ServiceNow**

ServiceNow is a Visionary in this Magic Quadrant. Its MXDP product, Now Platform, supports the creation and deployment of web, mobile and chat apps with technologies such as UI Builder, Mobile Studio, Virtual Agent Designer and IoT Bridge.

In 2020, ServiceNow had more than 13,000 employees and managed data centers in five continents. Its customers tend to be large and midsize enterprises in the government, retail, manufacturing, finance, healthcare and education sectors. ServiceNow's roadmap includes building in-platform support for augmented reality application development via wayfinding and by expanding the chat app experience with voice capabilities.

## **Strengths**

- **Geographic strategy.** ServiceNow's cloud offers a globally distributed deployment architecture. ServiceNow expanded its physical offices in both Europe and Asia in 2020 and plans to extend its data centers into India.

- **Innovation.** ServiceNow's Predictive Intelligence eases implementation of models and other AI capabilities into the design and creation of MX apps. Similarly, ServiceNow's NLU technology allows developers to embed language inference in their apps. Customers interested in intelligent document processing will appreciate the ability of ServiceNow's self-learning OCR capability to discover behavioral patterns.
- **Marketing Execution.** ServiceNow continues to focus on its community of developers with three key events and conferences: its Knowledge event, CreatorCon and the Global Developer Meetup program. It has expanded the audience for these events to more than 24,000 global participants.

## **Cautions**

- **Marketing strategy.** ServiceNow's marketing efforts lack focus on Now Platform's MXDP capabilities, when compared to its promotion of IT services, and workflows. This is surprising, given its innovative product and strong viability.
- **Offering strategy.** ServiceNow has not improved its support for augmented reality application development, a feature that many of its competitors offer, and customers of an MXDP demand. ServiceNow also lacks support for mixed reality applications. Now Platform also lacks many of the AI-assisted developer recommendations that MXDP customers are beginning to expect.
- **Customer experience.** In Gartner Peer Insights, only 75% of ServiceNow customers are willing to recommend it, which is lower than most of the Visionaries. Customers complained about a lack of integration with leading design platforms such as Invision, Figma, Adobe XD and Sketch. A lack of a comprehensive built-in design system and platform has also come up as a key factor in customer evaluations.

## **XOne**

XOne is a Niche Player in this Magic Quadrant. Its MXDP product, the XOne platform, consists of XOne Studio, XOne Server, GXTest and Virtual Agent. The XOne platform broadly supports the life cycle of application development for enterprise applications. This includes XOne for SAP, a version of its platform that is designed to extend S/4HANA to web and mobile experiences.

Its operations are mostly focused in Europe, and its clients tend to be mostly in the transportation and logistics, retail, technology and government sectors. XOne has developed a Virtual Agent to enhance development experience by suggesting next best actions to developers. It has also acquired small vendors of visual development and low-code technologies, the XOne Storyboard and XOne Playground.

## **Strengths**

- **Product strategy:** XOne has delivered new features that enable developers to create AR and mixed immersive applications within its platform. Its acquisition of the technologies for XOne Storyboard and XOne Playground will deliver improved support for visual and low-code development.
- **Viability:** XOne has established consistent revenue streams from training and certification services, professional development services and product licensing. XOne's revenue is bolstered by customer demand for digitization and its effective partner network.
- **Sales execution and pricing:** XOne grew strongly in 2019 and again in 2020, and it continues to offer flexible license plans for customers. These plans include self-hosted or XOne-hosted PaaS plans for enterprises, licenses for individuals, and for buying training and support.

## **Cautions**

- **Marketing execution:** XOne's MXDP offering lacks widespread awareness among potential customers. XOne needs to strengthen its strategy and investment in differentiating its MXDP platform and building more awareness of its technologies.
- **Vertical strategy:** XOne's platform does not offer any vertical-specific certifications, such as FedRAMP for government or public sector customers. Customers in highly regulated industries may require a vendor that specializes in their industry.
- **Geographic strategy:** While XOne has plans to extend physical office locations into Canada and Asia, its staff are mainly located in Spain and other parts of Europe. The majority of its customers are located in Europe and South America. Customers outside of these regions may be unable to find local service and support.

## 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

- Builder
- HCL Technologies
- Neutrinos

### Dropped

These vendors were dropped since they did not meet the minimum capabilities required in an MXDP, or narrowed their focus to specific problem or industry domains.

- IBM
- Microsoft
- Oracle
- Progress
- Resco
- Temenos

## Inclusion and Exclusion Criteria

To qualify for inclusion in this Magic Quadrant and its companion Critical Capabilities, each vendor had to satisfy the following criteria:

- The vendor must demonstrate a go-to-market strategy for its MXDP across mobile, web, and conversational app development.

- At a minimum, the platform must support cross-platform development and building of custom iOS and Android app binaries (in other words, should not require separate vendor involvement or services to generate or build any new custom binaries), and responsive web apps, as well as at least four of the following:
- **Progressive web app (PWA):** PWA service worker support within the MXDP
- **Chatbot:** Built-in chatbot framework or tight integration within the MXDP to external bot frameworks (for example, Amazon Alexa/Lex, IBM Watson, Google DialogFlow and Microsoft Azure Bot Framework).
- **Voice:** Built-in NLP and speech-to-text or tight integration within MXDP-to-voice platforms (including Amazon Alexa, Google Assistant, Baidu, Tencent).
- **Wearable and IoT:** Wearable and/or IoT support within development tools (including Apple Watch, Wear OS, Tizen, Harmony OS and HoloLens).
- **Augmented and mixed reality:** Immersive UI support within MXDP (including iOS ARKit, Android ARCore, WebXR and Wikitude).

Each vendor had to satisfy at least one of these business criteria:

- The vendor must have generated at least \$40 million in annual revenue in 2020 from MXDP software and subscription licensing (excluding professional services).
- The vendor must have had at least 100 existing paying enterprise customers in 2020, with production deployments of its MXDP for a minimum of 100 end users per customer.

Each vendor also had to have added at least 20 new paying enterprise customers for its MXDP in 2020 — that is, new contracts for a minimum of 100 end users per customer — in at least two of the following geographies:

- North America
- South America
- Europe
- Middle East and Africa
- Asia/Pacific

- China

We excluded vendors that:

- Offered only PaaS or back-end services without a front-end development tool or IDE for building apps or experiences.
- Required a specific third-party component or product that was not already included in the platform on an OEM basis — that is, any such component or product had to be branded, sold and supported directly by the same vendor.
- Only sold their platform along with development/professional services, where the tool is used exclusively by the vendor's consultants.
- Required the purchase or installation of other unrelated products or platforms offered by the same vendor — for example, a CRM application or content management system.
- Did not sell a commercial enterprise offering — that is, one without software or subscription fees — or that would retire the platform by the end of 2021.

## Evaluation Criteria

### Ability to Execute

Product or service: We evaluate the breadth and depth of each vendor's products and features across the software design and development life cycle, and look favorably on support for a broad range of application types. We look for, among other things, design and developer experience capabilities, simplicity of development, ease of integration, richness of back-end services, DevOps support (such as continuous integration/continuous deployment [CI/CD], testing, version and release management) and analytics.

More specifically, we examine:

- **Developer experience:** How does the platform support development teams' productivity using low-code approaches, collaboration, AI-augmented development, and other approaches to create a variety of app types?
- **Developer tooling:** How does the platform provide development teams with commercial and open-source tool options to design and build a variety of app types? Does the platform supply SDKs, an IDE or a CLI, or does it provide a plug-in to popular IDEs?
- **Back-end for front-end pattern (BFF):** How does the platform architecture enable developers to create back-end services for front-end experiences that optimize fit-for-purpose apps? How does the platform support reusable app services like location services, push notifications, offline sync, user management and data and file storage?
- **Designer experience and DesignOps:** How does the platform support rich UI design, UX interaction functionality, design-team management and product-level design delivery for apps (such as visual component designers or integration with design systems)?
- **API and integration support:** How does the platform provide planning, design, implementation and orchestration for APIs and app integration?
- **Microapp and superapp patterns:** How does the platform support reusable app components, app building blocks and app containers to enable portability across app types?



- **AI services:** How does the platform provide built-in or tightly integrated cloud AI services for use in apps (for example, natural language processing [NLP], image recognition and sentiment analysis)?
- **DevOps support:** How does the platform offer native or integrated tooling to support agile development, continuous integration and deployment (CI/CD), continuous testing and monitoring and analytics?
- **Process and workflow orchestration:** How does the platform support developers in designing and orchestrating app workflows and processes from existing systems (or as new ones) both within and across touchpoints?
- **Augmented reality and mixed reality support:** How does the platform support immersive interfaces that leverage SDKs (such as ARKit, ARCore, WebAR or Wikitude) or specific device platforms (such as HoloLens or Oculus)?

**Overall viability:** We examine each vendor's research and development spending and resources, the growth of its MXDP business, and its financial profitability or funding/capitalization.

**Sales execution/pricing:** We look for a broad sales reach across geographies and industries, effective sales operations — for example, long or short sales cycles — and simple pricing models.

**Market responsiveness/record:** We examine how quickly each vendor's products are released and adopted, and how new MX capabilities are supported, both using the vendor's resources and through partnerships.

**Marketing execution:** We look for general awareness of the vendor in the market, and any negative or positive perceptions of the vendor across IT and business units. We also consider how easily buyers understand a vendor's differentiators.

**Customer experience:** We examine customer deployments across a variety of app types and use cases, the vendor's ability to meet and exceed customers' expectations, and the ease of onboarding and training on its platform. Results from our Peer Insights data are important measures of customer satisfaction.

**Operations:** We look for growth in the vendor's MXDP business operations and staffing level, stability of leadership vision and strength of customer service.

**Table 1: Ability to Execute Evaluation Criteria**

<i><b>Evaluation Criteria</b></i> ↓	<i><b>Weighting</b></i> ↓
Product or Service	High
Overall Viability	Medium
Sales Execution/Pricing	High
Market Responsiveness/Record	Medium
Marketing Execution	High
Customer Experience	Medium
Operations	Low

Source: Gartner (July 2021)

## Completeness of Vision

**Market understanding:** Ability to understand customer needs and translate them into products and services. Vendors that show a clear vision of the MXDP market by listening to customers, understanding their demands, and shaping or enhancing market changes with their added vision. We look for vendors to demonstrate an understanding of how to address the needs of development teams in IT and business units, as well as third-party developers, for delivering a wide range of apps supporting a multiexperience strategy.

**Marketing strategy:** Ability to communicate clear, differentiated messaging consistently, both internally and externally (through social media, advertising, customer programs and positioning statements). We look for strong brand recognition, thought-leading product messaging, and outreach programs that succeed in an emerging market category.

**Sales strategy:** Ability to develop a sound strategy for selling that uses the appropriate networks (including direct and indirect sales, marketing, service and communication) and builds partnerships to extend the scope and depth of market reach, expertise, technologies, services and their customer base. We look for a strong go-to-market strategy focused on selling an MXDP to CIOs, enterprise IT and business-unit leaders responsible for application delivery and user experience.

**Offering (product) strategy:** Ability to create an approach to product development and delivery that emphasizes market differentiation, functionality, methodology and features, as well as how they map to current and future requirements. We look for a strong understanding of enterprise needs across the development life cycle of web, mobile, conversational, immersive and wearable apps. Vendors should demonstrate progress in expanding the number of digital touchpoints and modalities supported by the platform.

**Business model:** Ability to design and execute the organization's business proposition to achieve continued success. We examine product revenue growth and the ease of doing business with customers. We also look for a strong partner ecosystem that amplifies the vendor's go-to-market strategy.

**Vertical/industry strategy:** Ability to strategically direct resources (such as sales, product and development), skills and products to meet the specific needs of individual market segments and verticals. We look for differentiating capabilities built for specific industries and multiexperience vertical solutions (for example, industry-specific connectors, app templates and regulatory compliance support). Vendors may have a focused go-to-market approach for specific industries, including industry-specific partnerships.

**Innovation:** Ability to demonstrate technological advances that support broader MX development. We look for new capabilities that support use cases such as digital twins, multicloud deployment, IoT and AR/MR. Vendors can innovate through internal R&D, strategic partnerships and the development community around their MXDP.

**Geographic strategy:** Ability to deliver resources, skills and offerings to meet the specific needs of geographies outside the vendor's native geography, either directly or via partners, channels and subsidiaries (as appropriate for that geography and market). We look for diverse customer deployments across regions, delivery and reseller partner networks, and market awareness across the globe, as well as in-country vendor presence. Vendors should support global deployments, while remaining attuned to regional and local needs

**Table 2: Completeness of Vision Evaluation Criteria**

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

Source: Gartner (July 2021)

## Quadrant Descriptions

### Leaders

Leaders have strong capabilities across the full breadth of MXDP use cases and demonstrate a compelling product vision and commitment to MX development in their platforms. They have large customer bases in various geographies, robust partner ecosystems, and steady growth in this market. As the market rapidly evolves, Leaders must continue developing innovative capabilities to retain their leadership status.

### Challengers

Challengers offer compelling MXDP technologies and a significant number of customer deployments and partner channels. However, they lack the vision and direction of Leaders and Visionaries in meeting the needs of the MXDP market. Challengers need to focus on improving their platform packaging, pricing and other components of their MXDP go-to-market strategy to become Leaders.

## Visionaries

Visionaries demonstrate a strong understanding of the MXDP market and have the technical and go-to-market wherewithal to excel. However, they are typically less well-known than Challengers and Leaders, and they have smaller or narrower customer bases for their MXDPs. Visionaries need to outmarket their competitors and scale through partnerships to compete in this market and become Leaders in the long run.

## Niche Players

Niche Players are not widely known for their MXDP capabilities. From a go-to-market perspective, they focus narrowly on specific MX use cases, and they have not demonstrated a strong commitment to their product vision and global sales and marketing strategy. Niche Players have the technological foundation to compete in this market, but they must invest decisively as MXDP providers to outmaneuver their competitors.

## Context

Adopting an MXDP helps software engineering leaders bring together development activities for their teams targeting many different types of apps. In doing so, they create a more seamless, engaging user experience for customers and employees.

The core value of an MXDP lies in its ability to coalesce software development life cycle activities across a range of apps to address digital user journeys. An MXDP is not merely a loose collection of tools and services, but rather an “opinionated” development platform stack. It offers guidance and prescribed approaches to development that improve consistency and productivity.

The need for an MXDP is becoming increasingly apparent, as organizations depend on an increasing number of devices, digital touchpoints and interaction modalities. Based on our analysis of customers with successful MXDP implementations, application leaders must evaluate their MXDP investments and vendor strategy based on four attributes:

1. **Functional depth.** Select an MXDP with the right capabilities to meet their app development and business needs in the next 12 to 18 months.
2. **Product roadmap.** Assess each vendor’s vision for its MXDP to ensure it aligns with their organization’s ambitions beyond the next two years. Evaluate the vendor’s plans to support richer conversational, AR/VR, wearable and IoT use cases and its potential to scale development across business units and geographies.

3. **Integration.** Determine how well-integrated each vendor's tools and services are, both within the platform and with complementary or supplementary external tools and services. Prioritize MXDPs with integration capabilities that support the entire DesignOps-to-DevOps life cycle.
4. **Strategic partnerships.** Identify MXDP vendors that are well-suited to serve as their strategic technology partner. The MXDP will be a cornerstone of the customer's digital business technology platform, so the MXDP vendor should play a strategic role alongside core systems such as CRM and ERP.

## Market Overview

A multiexperience development platform (MXDP) offers development teams an opinionated and integrated set of front-end development tools and “back-ends for front-ends” services. It enables distributed and scalable development (both in teams and architecture) of fit-for-purpose apps across digital touchpoints and interaction modalities.

As an emerging technology, the core functions of MXDPs are rapidly changing. MXDPs are rising along the Innovation Trigger of several Gartner Hype Cycles (including [Hype Cycle for Software Engineering, 2021](#)) and have only reached between 5% and 20% of the target market. As vendors expand their capabilities and market reach, client inquiries about MXDPs are also on the rise (increasing by 124% between 2019 and 2020).

As the MXDP market continues to grow, software engineering leaders are using the platforms to develop applications across an expanding range of use cases:

- **Mobile apps** dominate the use cases for MXDP. Most mobile apps are native, with an increasing percentage being used for augmenting reality and voice-enabling interactions.
- **PWAs** are rising in popularity as a replacement for certain native applications.
- **Chatbots** have become mainstream.
- **Industrial IoT and digital twin applications** have allowed manufacturing and supply-chain companies to transform digitally.

- **Voice-enabled devices, MR-enabled glasses and other wearables** have enabled employees in hands-on environments, including hazardous ones, to interact with digital information.
- **Digital health and first responder use cases** spiked during the COVID-19 pandemic.

Customers are realizing business value from MXDPs by using the platforms to:

- Establish a culture of **DesignOps and DevOps** (using the MXDP's design and platforms).
- **Reduce cycle times** for feature development and delivery by enabling designers, software engineers and citizen developers to co-create multiexperience applications.
- **Improve employee experience** by leveraging the enhanced workflow and integration capabilities of MXDP.
- **Enable offline operations** of applications, allowing employees to remain productive even while network connectivity is weak or nonexistent.

Based on the volume of client inquiries we receive about MXDPs — and how quickly vendors are adding MX capabilities — we expect that:

- **The MXDP market is forecast to grow** at a CAGR of 19.5% from \$2.3 billion in 2021 to \$4.7 billion through 2025 driven by a confluence of digital disruptions, hyperautomation and the “composable business” that has led to an influx of tools and rising demand.
- **MXDP adoption will accelerate particularly in APAC** and in use cases that span IT and operational technology (OT) domains.
- **New vendors will enter** the market, driven by innovative ways to address the needs of customers and employees in the rapidly evolving post-pandemic era.
- **Existing vendors may exit** the broader MXDP market by choosing to narrow their focus to a vertical industry such as digital commerce, or a particular geography.

- MXPDP vendors will adjust their pricing to address web-scale business-to-consumer use cases.

## Evidence

Gartner Peer Insights. In our vendor evaluations, we reference data from [Multiexperience Development Platforms \(MXPDP\) Reviews and Ratings](#).

## 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.

## Document Revision History

[Magic Quadrant for Multiexperience Development Platforms - 2 March 2021](#)  
[Magic Quadrant for Multiexperience Development Platforms - 10 July 2019](#)  
[Magic Quadrant for Mobile App Development Platforms - 17 July 2018](#)  
[Magic Quadrant for Mobile App Development Platforms - 12 June 2017](#)  
[Magic Quadrant for Mobile App Development Platforms - 15 June 2016](#)  
[Magic Quadrant for Mobile Application Development Platforms - 23 July 2015](#)  
[Magic Quadrant for Mobile Application Development Platforms - 2 September 2014](#)  
[Magic Quadrant for Mobile Application Development Platforms - 7 August 2013](#)  
[Magic Quadrant for Mobile Application Development Platforms - 26 April 2012](#)  
[Magic Quadrant for Mobile Enterprise Application Platforms - 20 April 2011](#)  
[Magic Quadrant for Mobile Enterprise Application Platforms - 16 December 2009](#)  
[Magic Quadrant for Mobile Enterprise Application Platforms - 18 December 2008](#)  
[Magic Quadrant for Multichannel Access Gateways, 2007 - 8 November 2007](#)  
[Magic Quadrant for Multichannel Access Gateways, 2H06 - 6 October 2006](#)

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## Recommended by the Authors

Some documents may not be available as part of your current Gartner subscription.

[How Markets and Vendors Are Evaluated in Gartner Magic Quadrants](#)  
[Critical Capabilities for Multiexperience Development Platforms](#)  
[Forecast Analysis: Low-Code Development Technologies](#)  
[Technology Insight for Multiexperience Development Platforms](#)  
[Key Considerations When Building Web, Native or Hybrid Mobile Apps](#)  
[DesignOps: Organize, Collaborate and Innovate Product UX at Speed](#)  
[Build Better Products Faster With Design Systems](#)

## How Can Organizations Integrate IoT Digital Twins and Enterprise Applications?

### How to Build a Digital Business Technology Platform

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