

Magic Quadrant for Enterprise Integration Platform as a Service

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Enterprise iPaaS providers continue to broaden their go-to-market strategies to cover an increasing range of enterprise integration scenarios. This Magic Quadrant assesses 17 vendors to help application leaders meet the needs of their organizations.

Market Definition/Description

An enterprise iPaaS (EiPaaS) is a suite of integration platform as a service (iPaaS) technologies. An iPaaS provides capabilities to enable subscribers (also known as “tenants”) to implement integration projects involving any combination of cloud-resident and on-premises endpoints, including APIs, mobile devices and the Internet of Things (IoT). This is achieved by developing, deploying, executing, managing and monitoring integration processes and flows that connect multiple endpoints, so that they can work together (see Note 1).

An iPaaS is typically used for cloud service integration, application integration, data integration, B2B ecosystem integration, and increasingly API publishing, multiexperience support and IoT scenarios.

Gartner considers an iPaaS an EiPaaS if it:

- Is designed to support enterprise-class integration initiatives — that is, initiatives that require high availability, disaster recovery, security, SLAs and technical support from the provider.
- Provides user experiences that enable end users to develop and manage integrations independent of the EiPaaS provider’s professional services. These experiences must support multiple integration personas, particularly integration specialists and ad hoc integrators.
- Offers capabilities for executing multiple integration scenarios, including real-time application integration, batch data integration and B2B integration.
- Provides API management capabilities to support integration.
- Is fully managed by the vendor for patching and upgrades.
- Is supported by a broad go-to-market strategy that targets buyers of a strategic integration platform, rather than focusing on specific integration scenarios, industries or geographic areas.

Customers must be able to purchase these capabilities directly from the EiPaaS vendor, without engaging with third parties, and the vendor must provide at least first-line support for these capabilities.

This market includes only companies that provide public EiPaaS offerings for use by subscribers in integrating applications, data sources and APIs. Vendors that sell only iPaaS-enabling software, merely provide iPaaS capability embedded in other “xPaaS” solutions (such as application platform as a service [aPaaS] solutions), or embed their iPaaS capabilities within SaaS applications, are not considered EiPaaS vendors by Gartner.

Magic Quadrant

Figure 1. Magic Quadrant for Enterprise Integration Platform as a Service



Source: Gartner (August 2020)

Vendor Strengths and Cautions

Adaptris

Adaptris, is a Niche Player in this Magic Quadrant; in the last iteration of this research it was a Visionary. Founded in 1998 and based in Sutton, Surrey, U.K., Adaptris was acquired by RELX Group in 2015, but operates independently. Adaptris has a long history in the field of integration, mostly in the agriculture and food industry, based on the evolution of its Interlok technology. Adaptris formerly marketed its enterprise iPaaS as Cirrus, but reverted to the name Interlok in 2018.

Strengths

- **Targeted industry traction:** Adaptris has a reputation for supporting agriculture-related solutions, by offering iPaaS and integration brokerage together, along with APIs for the IoT and support for data standardization.
- **Use case coverage:** Adaptris supports a variety of usage scenarios, including core application-to-application, B2B and cloud service integration, for the agrifood industry. Several IoT implementations connect machinery, sensors and weather stations, and provide integration for blockchain requirements, as well as big data and analytics features for platform insights.
- **Customer relationship and growth:** Adaptris' partnering approach with clients results in positive customer engagements throughout the relationship. Adaptris has a strong iPaaS customer base, with over 8,700 paying customers, which continues to grow, boosted by global enterprises adopting Interlok for their cloud, on-premises and hybrid integration needs.

Cautions

- **Sales execution:** Despite growth in its direct customer base and expanded adoption among RELX customers, Adaptris' iPaaS revenue grew by less than the market average in 2019. Although this excludes revenue from other RELX businesses that deliver services to customers, there could be cause for concern about Adaptris' traction relative to other providers in the EiPaaS market.
- **Market coverage:** Approximately 70% of Adaptris' direct customers are in the agrifood industry, with the rest specializing in finance, risk management and travel. Outside its core adoption sectors, Adaptris' mind share is limited in this market.
- **Support for nonspecialist integrators:** The developer experience of Adaptris Interlok is tailored to integration specialists. This is, however, natural, given the company's industry focus and the complexity of some of its solutions. Adaptris has started to address the needs of ad hoc and citizen integrators through templates and wizards.

Boomi

Boomi is a Leader in this Magic Quadrant; in the last iteration of this research, as Dell Boomi, it was also a Leader. The company is a wholly owned subsidiary of Dell Technologies and based in

Chesterbrook, Pennsylvania, U.S. Its Boomi AtomSphere platform has evolved over 15 years into a suite of separately packaged components for application, data and B2B/electronic data interchange (EDI) integration; API management; low-code application development and master data management (MDM). The acquisition of Unifi Software, completed in January 2020, extended this suite with data catalog, data preparation and additional artificial intelligence (AI) capabilities. Boomi provides a variety of complementary managed services and professional services.

Strengths

- **Market understanding:** Boomi has been able to closely track, and often anticipate, EiPaaS market trends and build up a functionally rich platform that appeals to both large and midsize organizations. Boomi's low-code application development and data catalog/data preparation capabilities put it in a good position to capitalize on the industry's evolution toward fulfillment of the "composable enterprise" vision.
- **Product strategy:** Boomi has an ambitious roadmap. Its primary goals are to provide a unified user experience and a common data catalog across all AtomSphere platform components. AI technology will be extensively used to enable smart scheduling, chatbots, developer assistance, data preparation, platform self-healing and other use cases. Continuous integration/continuous delivery (CI/CD) support, API management improvements and a new consumption-based pricing model are other notable roadmap items.
- **Market traction:** Boomi is one of the most recognized brands in the EiPaaS market, and is highly respected by both users and competitors. Customers perceive Boomi as a visionary and innovative, yet reliable and trusted provider. Boomi's initiatives focus on clients' challenges relating to the IoT, employee and customer onboarding, event-driven architecture and enabling of the integration strategy empowerment team, along with industry-specific programs for government, retail, higher education, manufacturing and healthcare.

Cautions

- **Pricing:** One of the reasons why Boomi is rethinking its pricing model is users' feedback that its current pricing structure is challenging for large configurations. Users have also mentioned contract flexibility as an area in which Boomi could improve.
- **Citizen integrator support:** Boomi is very popular with integration specialists and ad hoc integrators. However, despite the release of the Connect Now self-service integration tool and an associated marketplace for packaged integration processes, feedback from reference customers indicates a need for increased support for citizen integrators.
- **Functionality and third-party support:** Although customers' feedback about Boomi's functionality is generally positive, it also indicates that there is room for improvement in terms of data quality, auditability and API management. They also expect Boomi to work to enhance the availability of third-party resources.

Celigo

Celigo is a Niche Player in this Magic Quadrant; in the last iteration of this research it was also a Niche Player. Based in San Mateo, California, U.S., Celigo entered the EiPaaS market in August 2008 with a focus on integrating Salesforce with NetSuite. The original Celigo Integrator offering was replaced in 2016 by Integrator.io, an EiPaaS for business users, integration specialists and developers. Celigo's EiPaaS provides a wide range of prepackaged integrations and connectors (using Celigo Integration Apps and Flow Builder), and abilities to build custom integrations.

Strengths

- **Support for nonspecialist integrators:** Celigo is well-versed in supporting ad hoc/line-of-business (LOB) and citizen integrator requirements, due to its focus on enabling SaaS integration. Customers are attracted to its product's low total cost of ownership (TCO), speed of implementation and enablement of third-party developers to build custom integration functions.
- **Sales execution:** Celigo has increased its investment in sales and marketing, which resulted in revenue growth above the market average in 2019 and a significant expansion of its customer base to almost 3,000 paying customers. This enables confidence in Celigo's commitment to this market. The free edition of Integrator.io enables easy evaluation and has helped support continued customer growth.
- **Sales strategy:** Celigo is extending its strategic sales and marketing focus by broadening its go-to-market approach and positioning Integrator.io as a unified platform. It now includes Integration Apps as functional extensions, targets business processes such as cash management, and provides unified pricing based on the number of endpoints and flows. Celigo plans to broaden its API management capabilities, reduce the TCO of integration flows by using the error management capabilities of its Autopilot offering, and provide enhanced visual dashboards and custom forms.

Cautions

- **Market reach:** Awareness of Celigo in the EiPaaS market remains limited, which often limits prospective customers' confidence about this vendor's market traction. Celigo aims to increase its market reach through an expansion of connectivity to SaaS providers, and by expanding its direct presence in EMEA. These aims are supported by the recent opening of its new EU data center and of its first office in Asia/Pacific.
- **Customer experience:** Customer feedback about Celigo's platform indicates concerns relating to, among other things, the quality of end-user training, life cycle management of integration artifacts, and the quality and reliability of its sales teams. Customer feedback about Celigo's EiPaaS functionality is not as positive as it is for some competitors.
- **Range of buyers:** Although Celigo's platform can support a wide range of use cases, its focus on SMBs and LOBs means that buyers often do not consider it for more strategic, complex deployments.

Cloud Elements

Cloud Elements is a Niche Player in this Magic Quadrant; in the last iteration of this research it was also a Niche Player. Founded in 2012, Cloud Elements is based in Denver, Colorado, U.S. The Cloud Elements API Integration Platform contains the Elements Catalog, with over 200 services, API hubs that provide a virtual API in front of certain application domains and Virtual Data Resources (VDRs) to normalize data types. It provides three different developer experiences — Formula Builder, Conductor and Elements Connect — for creating integrations. Cloud Elements' operations are global, and its clients tend to be independent software vendors (ISVs), system integrators (SIs) and, more recently, digital product teams, looking to embed its technology in their solutions.

Strengths

- **Multipersona support:** During 2019, Cloud Elements released Conductor, which offers a low-code user experience for ad hoc integrators. This joined Elements Connect, which offers a citizen integrator experience for prepackaged integration processes, and the developer-centric Formula Builder user experience.
- **Innovation:** Cloud Elements has innovated in the areas of service virtualization by introducing API Hubs, data entities in the form of VDRs, and security by creating a single access method based on OAuth for all elements. It is also investing in AI and machine learning (ML) to enable automated mapping for VDRs and Elements Connect.
- **Strategy for enterprise-grade operations:** Cloud Elements' product currently runs in the company's own data centers and client-provided virtual private clouds (on both Amazon Web Services [AWS] and Google Cloud Platform infrastructure). It plans to add more data centers during 2020, as well as to enable Google Anthos, AWS Outposts and Microsoft Azure Arc deployments to extend its reach further into clients' data centers.

Cautions

- **Marketing execution:** Cloud Elements has all the features required to compete in the EiPaaS market, yet its focus on embedding integration for ISVs and SIs means that many end-user organizations are unaware of Cloud Elements and its different approach. This is reflected in Cloud Elements being one of the least evaluated vendors in this Magic Quadrant, judging from surveyed reference customers.
- **Market focus:** Although Cloud Elements achieved above-average customer growth of 60% in 2019, Gartner estimates that its revenue growth was below the market average and that this resulted in a reduction of market share. Potential customers take account of Cloud Elements' relatively narrow focus on ISVs, resellers and SIs.
- **Geographic strategy:** Cloud Elements currently operates from only four data centers, split across North America (two), EMEA (one), and Asia/Pacific (1). Its sales and partner network are focused on North America, although it has a growing European footprint and relationships with the major SIs. By comparison, several market leaders in this Magic Quadrant operate from more than 20 centers across every major region of the world and have thousands of partners.

IBM

IBM is a Visionary in this Magic Quadrant; in the last iteration of this research it was also a Visionary. Founded in 1911 and based in Armonk, New York, U.S., IBM provides a modular suite of EiPaaS capabilities named IBM Cloud Integration. This suite includes IBM App Connect for application integration; IBM API Connect, IBM Secure Gateway Service and IBM DataPower Gateway for API management; IBM MQ and IBM Event Streams for event brokering; and IBM Aspera for managed file transfer (MFT). Separately from IBM Cloud Integration, IBM provides data integration and B2B integration cloud services, which are not considered in this Magic Quadrant.

Strengths

- **Market understanding:** With almost three decades in the integration technology market, IBM fully understands the complexity of the integration challenges that the largest organizations are facing. These include hybrid/multicloud integration, cloud-native architectures, multipersona support, and the key role played by AI in facilitating integration development and operations.
- **Product strategy:** IBM plans to extend its EiPaaS with a single-tenant offering, featuring advanced quality of service and SLA, based on its IBM Cloud Pak for Integration. This is a Red Hat OpenShift/Kubernetes-enabled platform that provides the same functionality as IBM Cloud Integration. IBM's roadmap also includes a new web-based, AI-assisted development tool enabling improved collaboration across integration personas; new testing capabilities; an asset repository for CI/CD support; and improved management and operations.
- **Market responsiveness:** In 2019, IBM added many new features in every component of its EiPaaS offering (for example, new adapters, support for OpenAPI 3.0 and GraphQL, blockchain integration and support for Istio service mesh). At the same time, the release of the IBM Cloud Pak for Integration showed how IBM was able to quickly capitalize on the Red Hat acquisition.

Cautions

- **Sales execution:** Gartner estimates that, in 2019, IBM's EiPaaS revenue grew by about 40%, which was less than the overall market's 48% expansion. Although IBM Cloud Integration has a solid presence among the company's loyal customers, IBM is growing its installed base at a slower pace than the competition. This might indicate that IBM's sales organization has limited focus on the EiPaaS opportunity.
- **Mind share:** Although IBM has a strong brand and a good reputation as an integration technology provider, generally it is not recognized as an EiPaaS vendor, especially by organizations that don't have an established business relationship with the company.
- **Fragmented offering:** IBM Cloud Integration, along with IBM's cloud services for data integration (InfoSphere Information Server on Cloud) and B2B integration (IBM Sterling B2B Integrator), has a formidable range of EiPaaS capabilities, which however, come from three distinct business units. Despite IBM's progress in homogenizing operating models and user experiences, these units' diverse priorities and goals might complicate adoption by customers needing a combination of application, data and B2B integration capabilities.

Informatica

Informatica is a Leader in this Magic Quadrant; in the last iteration of this research it was also a Leader. Founded in 1993 and based in Redwood City, California, U.S., Informatica is a privately held company. Informatica Intelligent Cloud Services (IICS) is a microservices-based offering with coverage spanning application, data and B2B integration, API management, a digital integration hub, MDM (“Customer 360”), data quality, governance and privacy. IICS and its software counterparts can be managed on a common platform environment based on a hybrid integration platform (HIP) model.

Strengths

- **Enterprise offering and adoption:** That Informatica’s EiPaaS has a leading market share reflects its enterprisewide use and HIP approaches for integrating data, applications and APIs in diverse use cases including digital integration hubs, data lakes, data warehousing, application modernization and process automation. Enhanced governance, achieved with data cataloging, metadata management, data quality, data privacy and MDM capabilities, capitalizes on increasingly complex integration demands.
- **Innovation:** Resonating well with buyers seeking hybrid and augmented integration strategies, Informatica’s focus on intelligence and automation within cloud-native integration capabilities is driven by CLAIRE, Informatica’s ML-powered engine. It positions IICS for multicloud, distributed deployments to support diverse types of user, data and use case.
- **Extensibility:** The use of AI for intelligence and automation in metadata-activated integration flows positions IICS for augmented, platform-agnostic integration capabilities to support many established and emergent applications, data management and analytics platforms. With a balanced focus on business and technical roles, and the use of microservices-based composable building blocks, Informatica resonates with diverse integrator personas, organizations undertaking vast initiatives for modernizing integration infrastructure, and those looking for a broad ecosystem (Informatica’s includes Microsoft Azure, AWS, Databricks, DataRobot, Google, MongoDB, Salesforce, SAP, ServiceNow, Snowflake and Tableau).

Cautions

- **Mind share for non-data-focused scenarios:** Although Informatica IICS has the capabilities for B2B, API and mobile-app-oriented integration, it is more often considered for data-focused scenarios.
- **Guidance for complex implementations:** Informatica IICS is increasingly used for complex scenarios and enterprisewide deployments, but some customers expect proactive guidance about reference architectures and best practices. Informatica has built reference architectures and practice methodologies for cloud data warehouses, data lakes, application modernization and Customer 360, but it needs to make these available more broadly.
- **Pricing:** Although deployments reflect a reasonable connection between the pricing of Informatica’s EiPaaS and its anticipated value, some customers perceive IICS to be more

expensive than competing offerings, which is a disadvantage during competitive evaluations. Procurement models offered by Informatica to offer buyers more choice include consumption-based, freemium, midmarket and use-driven packages.

Jitterbit

Jitterbit is a Leader in this Magic Quadrant; in the last iteration of this research it was also a Leader. Founded in 2003, Jitterbit is a private company based in Alameda, California, U.S. It began as an integration software provider focused on SMBs and has been evolving its EiPaaS offerings for a decade. Its Harmony API Integration Platform integrates diverse cloud, interenterprise and on-premises environments, and provides API autocreation and management. Jitterbit offers solutions for ISVs and SaaS providers, including embedded integration capabilities.

Strengths

- **Market traction:** With increased mind share and presence in competitive situations, Harmony sales generated revenue growth above the market average in 2019. With a paying customer base of more than 3,000 companies and the potential to capitalize on more than 65,000 freemium iPaaS users, prospective customers can have confidence in Jitterbit's commitment to, and traction in, this market.
- **Resonance of offering:** Rapid time-to-deployment is indicated by reference users' ability to develop, deploy and share APIs that support integration with packaged applications, diverse DBMSs and a wide range of popular SaaS applications. Jitterbit provides a set of predefined templates, with over 100 "recipes" across applications in the domains of CRM, marketing automation, e-commerce/payment processing, human capital management (HCM) and IT service management automation. Jitterbit's plans for voice-based user interactions aim to support mobile collaboration in integration activities.
- **Customer relationships:** Customers often choose Jitterbit's EiPaaS because they have a positive view of their business relationship with Jitterbit and its approach to partnering with customers to drive digital business transformation through an incremental, iterative approach. This enables an evolving focus on the integration of ecosystems and API orchestration (spanning the life cycles of products, customers, services and employees).

Cautions

- **Implementation and skills coverage:** Although Jitterbit's capabilities resonate with the growing interest in the EiPaaS market, prospective buyers are often unaware of the vendor's applicability to enterprisewide capabilities. While the number of certified partners has grown, prospective Jitterbit customers have expressed concerns about the extent of access to skilled resources in certain geographies, integration with incumbent technical environments and multicloud support, among other things.
- **Operational and deployment support:** Although Jitterbit has improved its diagnostic capabilities and product documentation, some customers who have implemented its EiPaaS have identified the diagnosis of error messages as challenging and therefore want improved

diagnostic support, as well as easy-to-use documentation. Customers have also expressed a desire for easier access to knowledge and assistance from the user community, and for improved access to implementation guidance and practices.

- **Geographic strategy:** Although Jitterbit has continued to expand its customer base, it still has a relatively limited market presence in large enterprises globally, compared with its major competitors. Jitterbit is, however, continuing to increase its international coverage by expanding its sales and services teams in Europe and Asia/Pacific and by engaging in partnerships.

Microsoft

Microsoft is a Leader in this Magic Quadrant; in the last iteration of this research it was also a Leader. Founded in 1975 and based in Redmond, Washington, U.S., Microsoft offers Azure Integration Services (AIS), which combines Azure Logic Apps with Azure API Management, Azure Service Bus (a message queuing and publish-subscribe service) and Azure Event Grid (a massive-event ingestion service). Additional integration-related services include Azure Data Factory, a serverless data integration service, and Power Automate, a citizen integrator tool built on top of Azure Logic Apps.

Strengths

- **Breadth of portfolio:** Microsoft's EiPaaS offering provides a combination of application integration, data integration, business task automation, API and event stream processing support in a synergistic portfolio. AIS offers a versatile platform catering for diverse integrator personas, serverless function apps and integration patterns, which aligns Microsoft with demand for modernizing integration capabilities.
- **Market traction:** Microsoft's EiPaaS customer base gives the vendor a large presence in this market, driven by accelerating usage of Azure Logic Apps and Azure Data Factory. This traction stems from Microsoft Azure's market momentum, widely available skill pool and large partner network.
- **Global coverage:** AIS is available worldwide, with support from the global Microsoft organization and about 1,000 AIS-enabled partners. Most AIS components are available in over 50 Azure data centers spread across every major region of the world. This, along with Azure's support for a range of international, regional and industry standards, vastly extends the global footprint of AIS.

Cautions

- **Versatility of offering:** Microsoft's EiPaaS is predominantly used in Microsoft-centric environments. However, with the introduction of Azure Arc, Microsoft aims to make its integration capabilities accessible in more places and in more ways, and to satisfy demands for multicloud and hybrid deployment models.
- **Product implementation and documentation:** Some reference customers for Microsoft's EiPaaS identified complexity and insufficient technical documentation as deployment

challenges that resulted in a longer time to value than is associated with its major competitors. Development efforts comprising Azure Logic Apps components and Azure Data Factory — “lifting and shifting” workloads from BizTalk or SQL Server Integration Services (SSIS), for example — would reportedly benefit from an easier-to-navigate portfolio of tools and clearer guidance on implementation. Microsoft’s plan to introduce a utility tool for migration from BizTalk to AIS could potentially make some implementation efforts easier.

- **Pricing model:** Reference customers highlighted how Microsoft’s pricing method makes it difficult to estimate costs without a detailed understanding of implementation scenarios. Microsoft has, however, begun to address this concern by introducing a simpler way of estimating costs and workloads in relation to the required toolset and likely usage.

MuleSoft

MuleSoft is a Leader in this Magic Quadrant; in the last iteration of this research it was also a Leader. Founded in 2006 and based in San Francisco, California, U.S., MuleSoft became a Salesforce company through acquisition in May 2018 but operates as an independent unit. MuleSoft’s Anypoint Platform combines iPaaS, API management and its classic enterprise service bus (ESB). It is complemented by Anypoint Exchange, Anypoint MQ, and Anypoint Design Center’s flow designer that serves ad hoc integrators. MuleSoft’s operations are geographically diversified, and it has clients across all industries.

Strengths

- **Go-to-market strategy and traction:** MuleSoft’s iPaaS business grew three times faster than the market in 2019, to become the second-largest iPaaS provider by revenue. Its ability to go to market both independently and jointly with Salesforce has helped it gain mind share and competitive advantage while investing in capabilities that are of paramount importance to enterprises across several industries globally.
- **Innovation:** MuleSoft’s technology-ecosystem-agnostic Anypoint Platform supports a broad range of application and data infrastructures. Application network graph functionality advances MuleSoft’s metadata-rich capabilities in conjunction with ML. The platform provides an environment for obtaining, discovering and collaborating on reusable artifacts such as APIs, integration flows, connectors, data stores and security patterns.
- **Platform versatility:** MuleSoft has continued to expand its wide range of capabilities, which include full life cycle API management, security, multicloud deployment and an open-core ESB. In 2019, it also added features such as Anypoint Service Mesh for microservices, Anypoint API Community Manager for API programs and Anypoint Partner Manager for B2B and EDI.

Cautions

- **Appeal to nonspecialist integrators:** Despite MuleSoft’s established use by integration specialists and its broad positioning as vendor with a single platform for a wide range of use cases, buyers generally do not associate MuleSoft with support for nontechnical integrator personas.

- **Pricing and negotiation flexibility:** Prospective customers point to MuleSoft's pricing method and negotiation flexibility as areas in which there is room for improvement. Although many MuleSoft customers see a reasonable connection between its prices and the value offered, they nevertheless express concerns about high cost relative to alternatives in this market.
- **Complexity and suitability:** During interactions with Gartner, some small and midsize organizations express concerns about the complex nature of the Anypoint Platform, and they question MuleSoft's suitability for their use cases. Underutilization of MuleSoft's powerful platform can lead to dissatisfaction with the ROI.

Oracle

Oracle is a Leader in this Magic Quadrant; in the last iteration of this research it was also a Leader. Founded in 1977 and based in Redwood Shores, California, U.S., Oracle provides EiPaaS capabilities within its overarching Oracle Cloud proposition, which includes infrastructure as a service (IaaS), PaaS and SaaS offerings. Oracle's EiPaaS comprises Oracle Integration Cloud Service, Oracle API Platform Cloud Service, Oracle SOA Cloud Service (for backward compatibility with Oracle SOA Suite), Oracle Managed File Transfer Cloud Service, Oracle Process Cloud Service, Oracle Data Integration Platform Cloud and Oracle Self-Service Integration Cloud Service.

Strengths

- **Offering coverage:** Oracle's EiPaaS is among the most functionally rich in the market. It provides application, data and B2B integration; API management; process integration; IoT support; business insights and analytics for integration processes; a no-code application development tool; and hybrid, multicloud deployment support via a distributed execution engine. Notably, it also offers MFT, a feature neglected by most EiPaaS providers.
- **Marketing strategy:** Oracle has articulated a marketing strategy that targets both large and midsize organizations, focuses on ERP, HCM and customer experience integration processes, and encompasses both Oracle and popular third-party SaaS applications. To support these use cases, Oracle supplies, on top of its platform, an expanding range of adapters, packaged integration processes, and business-oriented integration process insights and analytics.
- **Product strategy:** Oracle plans extensive use of AI to assist a wide range of integration development and operation activities. Planned AI-powered functionalities include self-defining integrations, metadata identification, automatching/mapping, standard conformance, prediction of SLA violations, automatic data masking and self-healing.

Cautions

- **Enterprise-grade operations:** Reference customers usually appreciate the enterprise characteristics of Oracle EiPaaS. However, they also indicate that there is room for improvement in terms of performance/throughput, high availability, disaster recovery, public key infrastructure (PKI) management, standard compliance, business activity monitoring and the lack of cloud data centers in Asia/Pacific.

- **Partnerships:** Oracle's EiPaaS supports third-party applications such as those of Workday, ServiceNow, Marketo and SAP (including SuccessFactors), and its distributed execution agent can run on AWS, Microsoft Azure and Google Cloud Platform. However, unlike other EiPaaS providers, Oracle does not have significant joint activities with these companies, because Oracle is a strong competitor against all of them. This tension might limit Oracle's growth prospects and could potentially impair its support for users.
- **Customer satisfaction:** In general, Oracle's EiPaaS customers are pleased by the overall service they receive. However, they identify room for improvement in terms of support for ad hoc and citizen integrators, the quality and availability of end-user training, pricing and commercial flexibility.

SAP

SAP is a Leader in this Magic Quadrant; in the last iteration it was a Visionary. Founded in 1972 and based in Walldorf, Germany, SAP offers the SAP Cloud Platform Integration Suite, which provides the full range of integration capabilities, as well as stream analytics, robotic process automation (RPA) and master data services. Additionally, SAP's API Business Hub provides access to integration packs, APIs and events that target specific business processes. Its operations are geographically diversified, and it has clients in all industries.

Strengths

- **Offering coverage:** Aided by its large installed base of business applications and long history in integration software, SAP has created one of the most comprehensive EiPaaS offerings. SAP focuses not just on the technical features of integration technology, but also on providing solutions — built on its platform — that address customers' biggest SAP integration challenges.
- **Sales execution:** With an estimated 55% growth bringing its total of EiPaaS customers to 11,300, and a 59% increase in revenue, SAP comfortably outperformed the iPaaS market in 2019. Also, with an adoption rate of less than 10% among its own vast customer base, and planned improvements to its sales strategy, SAP is likely to capture a greater share of the market in 2020. This should give potential customers confidence in SAP's commitment to its EiPaaS offerings.
- **Customer experience:** Reviews from surveyed reference customers have improved significantly for most aspects of SAP and its offering. This is largely due to SAP's huge shift of focus to customer success during 2019.

Cautions

- **Marketing strategy:** Although changes to SAP's marketing strategy have increased awareness of its integration capabilities among its substantial customer base, SAP was one of the least considered vendors in competitive evaluations, according to reference customers surveyed for this Magic Quadrant. This indicates that SAP's messaging about its ability to integrate with any application and data source is still not widely heard or accepted.

- **Platform deployment:** SAP has one of the most widely deployed platforms on all major cloud providers, but customers who require an on-premises integration runtime have to install SAP NetWeaver Process Orchestration 7.5. This is of little concern to existing Process Orchestration users, but it will deter potential customers who do not want to install multiple products. SAP plans to address this limitation in 2021.
- **Platform technology:** For several features within its platform, SAP has adopted a best-of-breed approach, drawing on vendors such as Cloud Elements, Google (Apigee) and Solace. Potential customers should ensure they are comfortable with the levels of influence and control that SAP can provide over those aspects of its platform.

SnapLogic

SnapLogic is a Leader in this Magic Quadrant; in the last iteration of this research it was also a Leader. Founded in 2006 and based in San Mateo, California, U.S., SnapLogic offers the Intelligent Integration Platform (IIP). Its standard edition provides all the core capabilities required for limited consumption. Its enterprise edition offers core capabilities and options to add API management, B2B integration, big data support (SnapLogic eXtreme) and data science capabilities. Developers can use IIP's many connectors (over 500 "Snaps"), build integration pipelines, automate process flows and maintain reusable patterns.

Strengths

- **Adaptable platform and customer focus:** SnapLogic supports the core requirements for automating the integration pipelines of application and data sharing. IIP facilitates a mix of patterns for integrating applications, data and APIs on an integrated platform, which results in favorable TCO, productivity and time to value. Additionally, SnapLogic's strategic partnering approach with customers results in positive relationships with them.
- **Balance of high performance and simplification:** SnapLogic's focus on empowering less-technical integration roles reduces reliance on specialist integrators when creating integration pipelines of low to moderate complexity and makes it easier to scale up deployments for complex integration flows. SnapLogic is a pioneer of AI-enabled integration and continues to differentiate its use of embedded ML to provide automation and guidance, which enables faster development of integration flows and simpler implementations.
- **Composable business capabilities:** SnapLogic plans an evolution of IIP toward automation of the composition of application services, so that business users can build integration flows without needing a detailed understanding of surrounding endpoints, data and process transformation. The envisaged "Flows" capability encompasses AI-guided advice, use of natural language processing (NLP), community sharing and the creation of templates and automation patterns, with a view to easing process automation across customer, partner and employee domains.

Cautions

- **Operations and administration:** Service interruptions during upgrades and inconsistency in the quality of technical support were issues identified by SnapLogic's reference customers. As implementation complexity is growing, they want improved support for diagnostics and monitoring, simpler transaction logging and tracking, and the operationalizing of integration components for continuous delivery. SnapLogic has moved to address this issue by adding automated regression testing, so that customers can perform tests by using infrastructure environments within their control.
- **API management functionality:** Although SnapLogic has strengthened its focus on API enablement, users identified this as an area of relative immaturity for IIP when it comes to comprehensive use for requirements like composing, reusing and making APIs available with policy management and enforcement.
- **Access to solutions:** Reference customers seeking to broaden their use of IIP want wider access to, and availability of, business solutions that have been proven in the marketplace, including those from third-party SIs and members of the peer user community that use IIP. They also want guidance about implementation best practices. SnapLogic has been addressing this issue by working with SIs to develop solutions for popular application integration use cases, and with ISVs to develop joint solutions for cloud data warehouse, HCM and spend management requirements.

Software AG

Software AG is a Visionary in this Magic Quadrant; in the last iteration of this research it was also a Visionary. Founded in 1969, Software AG is based in Darmstadt, Germany. Software AG's EiPaaS offering is webMethods.io, which includes B2B and API capabilities. There is also a headless version that can be embedded within software components. The same offering also provides the integration capabilities for this vendor's Cumulocity IoT platform. Software AG's operations are geographically diversified, and it has clients in all industries.

Strengths

- **Product coverage:** Software AG's EiPaaS platform offers application integration, data integration, B2B integration and API management capabilities. The vendor also has a very strong IoT-focused offering in the form of Cumulocity. With a data hub, a data catalog, support for MFT and increasing use of AI on its roadmap, Software AG looks to be building a very capable platform.
- **Geographic strategy:** 2019 was a good year for Software AG and its global expansion of presence to serve customers, as it opened data centers in China and Australia and extended its partner network. Consequently, one-fifth of its clients now come from Asia/Pacific and Japan.
- **Market understanding:** Software AG has a strong track record of solving complex integration challenges for some of the world's largest organizations. Although the company faced challenges in shifting focus from integration platform software to EiPaaS, its product roadmap and go-to-market strategy look to capitalize on its integration expertise.

Cautions

- **Sales execution:** Gartner estimates that Software AG grew its customer base by 42% and its revenue by approximately 35% in 2019. Both these figures were below the market average. Prospective customers may be concerned about Software AG's ability to execute effectively across all sales channels.
- **Market responsiveness:** Software AG has been playing catch up with the rest of the market. As a result, many of the features it added in 2019 focused on building a more cohesive platform and laying the foundation for a robust roadmap. Although the vendor provides updates every two weeks and major releases every three months, this is less frequently than the competition, with some leading vendors having a daily release schedule. This could result in customers having to wait longer for enhancements.
- **Marketing execution:** Our survey of reference customers found that Software AG was one of the least considered vendors in this Magic Quadrant. Buyers might question how seriously Software AG is about increasing awareness of its presence in the EiPaaS market, given its historical strength in the integration sector.

Talend

Talend is a Challenger in this Magic Quadrant. Talend is headquartered in Redwood City, California, U.S. Founded in 2005 as a provider of data integration software, Talend has since gained an EiPaaS portfolio by means of product enhancements and acquisitions (of Stitch in 2018 and Restlet in 2017). Its portfolio comprises Cloud Data Integration, Cloud Data Management, Cloud Data Loader, Cloud Real Time Big Data Integration, Cloud Data Catalog and Cloud API Services (which has ESB and EDI support). These stand-alone tools are also offered within Talend Data Fabric, an overarching platform for Talend's cloud-based and on-premises products.

Strengths

- **Sales execution:** Talend doubled its iPaaS-associated revenue in 2019, which was more than twice the market's rate of growth (albeit from a small base in the iPaaS market). This should give customers confidence in Talend's commitment to this market.
- **Product evolution:** Talend's EiPaaS uses established on-premises data integration technology, broadened for cloud and on-premises integration and hybrid deployments, and reusable artifacts, along with APIs to extend and embed it. The addition of Cloud API Services, which has been available for over a year, has extended applicability to cloud service integration B2B and API-oriented iPaaS requirements.
- **Business model extension:** Capitalizing on the company's data management experience, Talend's expanding market focus reflects demand for data preparation, metadata support, ingestion and manipulation of data involving big data sources. This creates synergy between Talend's EiPaaS and its well-established data-driven strategies.

Cautions

- **Market and mind share:** Talend's various EiPaaS offerings and functional capabilities appear infrequently in competitive situations seen by Gartner. Many prospective customers have yet to learn of Talend's evolving coverage in the iPaaS market.
- **Geographic and skills coverage:** Although Talend is expanding its customer base, its traction is largely in the U.S. and Europe — it has a relatively small footprint in other regions, and no presence in Latin America. Prospective customers have expressed concerns about a lack of skilled implementers to support Talend's EiPaaS.
- **Resonance and versatility of offering:** During Gartner inquiry sessions, user organizations generally do not look to Talend's EiPaaS for the integration needs of application composition, on-premises application-to-application integration and process optimization. This is because organizations are largely drawn to familiar uses of Talend's technologies for data integration.

TIBCO Software

TIBCO Software is a Challenger in this Magic Quadrant; in the last iteration of this research it was also a Challenger. Founded in 1997 and based in Palo Alto, California, U.S., it introduced TIBCO Cloud Integration in May 2016. TIBCO's acquisition of Scribe Software in June 2018 added the data integration capabilities of the Scribe Online platform to TIBCO's EiPaaS. TIBCO has made further acquisitions since then — of Orchestra Networks in December 2018 (for MDM) and of SnappyData in March 2019 (for an in-memory data platform) — to expand its portfolio. TIBCO operates in diverse geographies and industries.

Strengths

- **Sales execution:** TIBCO gained more than 2,000 EiPaaS customers in 2019, a 65% increase from the previous year, with its focus on SMBs, value-based selling and partnerships. Prospective customers could benefit from TIBCO's growing focus on multicloud, geographical and other partnerships.
- **Product versatility:** TIBCO's EiPaaS offers the functional breadth and use-case versatility required for modern HIPs to support enterprise-grade operations. It aims to help organizations looking to define, operate and govern data and application integration capabilities and MDM solutions, and to tap into emerging trends involving ML-powered data science scenarios.
- **Presence and experience:** TIBCO has been an active participant in the integration technology market for decades in all major regions of the world. It has a large partner ecosystem of over 1,100 SIs and value-added resellers. Buyers can benefit from TIBCO's long tenure in this market and its experience of providing support to customers.

Cautions

- **Market mind share:** Although recognized as an established middleware vendor, TIBCO appears infrequently in competitive situations known to Gartner in this market. There is a risk that prospective customers might overlook the capabilities of its EiPaaS offering.

- **Solution strategy and implementation:** TIBCO has a broad range of capabilities relevant to this market, but increasingly complex implementations require faster access to, and better understanding of, solutions and practices demonstrated in the market. Packaged integration templates and recipes and the quality of its peer user groups and peer user content are among the aspects that need improvement.
- **Integrator productivity:** As TIBCO's portfolio expands, issues arise for some user organizations that identify a need for improved integrator productivity and ease of use across different EiPaaS components (for example, application integration and API management). Improvements in this regard would enable smoother adoption for different use cases.

Tray.io

Tray.io is a Niche Player in this Magic Quadrant. Founded in 2015 and headquartered in San Francisco, California, U.S., Tray.io is a privately held company with investors including Meritech, Spark, GGV Capital and True. With an emphasis on ease of use and flexibility, Tray.io offers the Tray.io Platform and Tray.io Embedded. Tray.io's EiPaaS provides a wide range of prepackaged integrations and connectors, and the ability to build custom integrations. Tray.io's operations are North America-centric. Recently, ISVs that embed Tray.io's solution to provide integration to their customers have accounted for a significant percentage of Tray.io's customers.

Strengths

- **Sales execution:** From a small base, Tray.io's customer count grew significantly in 2019, to around 2,000 customers, and the company's revenue tripled. This should give prospective customers confidence about Tray.io's commitment to its EiPaaS offerings and their traction.
- **Sales strategy:** Tray.io's go-to-market approach primarily targets business users and processes in midsize and large enterprises, and, more recently, integration specialists and developers. These users are seeking to automate their business applications and processes, and are attracted to Tray.io's ease of use and prepackaged integration recipes.
- **Customer experience:** Customers praise Tray.io's scalability, service and support, including the responsiveness of its staff, its platform's overall capability, its compliance with standards and the citizen integrator user experience.

Cautions

- **Geographic strategy:** Although Tray.io uses AWS's global infrastructure, its platform is deployed only in North America, which may limit its ability to serve customers that operate internationally. The lack of direct operations beyond the U.S. and the U.K. may also deter organizations outside those countries that prefer local sales and support. Tray.io does, however, plan to open dedicated EMEA data centers in 2020.
- **Breadth of offering:** Tray.io does not yet provide packaged EDI B2B integration capabilities, AI, RPA or multicloud support, and it focuses on business users, although it plans to address some of these shortcomings in its 2020 roadmap. During Gartner inquiry sessions, Tray.io is not often

considered for strategic and complex deployments by large and global organizations with demanding ground-to-ground integration needs.

- **Market reach:** Despite a substantial number of Tray.io's staff being based in the U.K. — mostly in R&D and support functions — the vast majority of its customers are based in North America, and awareness of Tray.io outside this region remains low. Consequently, Tray.io is one of the least evaluated providers in this Magic Quadrant. The vast majority of Tray.io's customers are indirect (that is, they are end customers of ISVs), with LOB/business users representing a substantial percentage.

Workato

Workato is a Leader in this Magic Quadrant; in the last iteration of this research it was also a Leader. Founded in 2013, Workato is based in Cupertino, California, U.S. The Workato Workspace offering targets departmental or SMB development, whereas Workato Enterprise Suite targets enterprise-level adoption. Automation editions target business functions and industries. Options for embedding OEM capabilities target ISVs. Workato's operations are mostly in North America, but it also has a presence in Asia and Europe. It has clients in all industries.

Strengths

- **Customer experience:** Workato has scored consistently highly for customer satisfaction in our surveys of reference customers. This year, reference customers praised Workato's platform for its ease of use, citizen integrator experience and breadth of features. They also praised Workato for its approach to evaluations and contract negotiations.
- **Innovation:** Workato was an early proponent of AI with Recipe IQ (computer-generated integration flows), OpsIQ (a self-healing production platform to reduce downtime) and various Workbot features to ease use of the platform. Workato's roadmap continues to feature such capabilities, with a view to enabling customers to be more productive and gain greater insight from a more intelligent platform.
- **Sales execution:** 2019 was a strong year for Workato, with estimated revenue growth three times that of the market average and a 72% rise in customer numbers. Although there is still some way to go before Workato captures a significant share of the market (it climbed just one place), its trajectory looks promising. This will reassure prospective customers that Workato is committed to customer success.

Cautions

- **Geographic strategy:** Although Workato has invested substantially in sales and marketing in Asia/Pacific and EMEA (markets that account for 27% and 22% of its customers, respectively), it has yet to deploy in a data center outside the U.S. Workato plans to support data centers in EMEA and Asia/Pacific and Japan in 2020.
- **Product offering:** Although Workato's pursuit of a cloud-native approach to iPaaS is admirable, it has been late to provide the ability to deploy the runtime execution engine remotely in a

client's data center or public cloud. As a result, clients looking to run large-scale integrations within their data centers and clouds rarely shortlist Workato.

- **Market reach:** Although awareness of Workato is growing and customers appreciate its ease of use and messaging about intelligent automation, large enterprises rarely consider Workato as an option to replace existing platforms, judging by our reference customer survey and client inquiry sessions.

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

- Talend
- Tray.io

Dropped

- Azuqua
- Moskitos

Inclusion and Exclusion Criteria

To qualify for inclusion in this Magic Quadrant, vendors had to deliver a service with the following characteristics:

- It had to be a cloud service:
 - Available by subscription and accessible over internet technologies.
 - Available uniformly to all qualified subscribers.
- It had to include:
 - Some sharing of physical resources between logically isolated tenants (subscribers or applications).
 - Some self-service provisioning and management by subscribers.
 - Bidirectional scaling without interruption of activities and with some automation.
 - Some instrumentation for resource use tracking.

- It had to be a PaaS solution that:
 - Encapsulates the underlying virtual or physical machines, their procurement, management and direct costs, and does not require tenants to be aware of them.
 - Delegates to the providers the patching, versioning and health of the platform stack.
- It had to provide the following iPaaS capabilities:
 - Features targeting application integration — that is, the ability for different applications to exchange messages, call each other's business functions and automate business processes. This integration generally needs to be at the transaction level. It must support use cases such as data consistency/synchronization between applications, composition of new services from aggregations of existing applications or services (typically published as APIs or events), and delivery of a multistep process that touches many systems.
 - Features targeting data integration — that is, the ability for different data stores to synchronize, to move data from one store to another, and to combine, deduplicate and aggregate data from different stores. This integration generally involves a bulk/batch, federated/virtualized or replication/synchronization mode of data delivery. It supports requirements for extracting, transforming, combining and provisioning data to support diverse use cases, such as analytics and data management, as well as integration.
 - Features targeting API management — that is, the ability to create, deploy, secure and monitor APIs. These capabilities must include an API gateway and administration portal; they may optionally include a developer portal.
 - Connectivity to different endpoints that are on-premises and cloud-based, including:
 - Application connectors (for example, for Salesforce, Workday, NetSuite, Oracle E-Business Suite, SAP S/4HANA, ServiceNow, Microsoft Dynamics and Marketo).
 - Data source connectors (for example, for file systems and SQL and NoSQL databases).
 - Technology connectors (for example, for FTP, HTTP, Java Message Service [JMS] and Open Database Connectivity [ODBC]).
 - Multiple data/message delivery styles, including:
 - API-based.
 - Messaging/event-based.
 - Batch.
 - Data and message validation.
 - Data and message mapping and transformation.
 - Data and message routing and orchestration.

- End-user tools to develop, test, deploy, execute, administer, monitor and manage integration flows, and to manage the life cycle of the relevant artifacts (transformation maps, routing rules, orchestration flows, adapter configurations and others).
- It had to be enterprise-grade and aimed at enterprise-class projects, by providing:
 - Support for high availability/disaster recovery.
 - Secure access to endpoints and to the platform's functionality.
 - Technical support to paying subscribers.
- It had to be marketed as a versatile offering able to address a broad range of use cases and industries.
- It had to be provided as a “stand-alone” service directly usable by the subscriber. To use the platform, clients can subscribe to the EiPaaS capability only, not just to some other cloud service — a SaaS application or another form of PaaS, such as aPaaS — of which the iPaaS capabilities are an “embedded” subset.
- All capabilities had to be provided directly by the EiPaaS vendor. The customer must be able to purchase all these capabilities directly from the vendor of the enterprise iPaaS without engaging with third parties, and the vendor must provide at least first-line support for these capabilities.
- All the functionality listed above had to be generally available as of 15 February 2020, and had to have at least 900 paying customer organizations, of which at least 200 were direct customers, by the same date. Please note that we took into account the number of paying organizations and not individual users. We considered both “direct” clients and “indirect” customers (organizations that bought a provider's EiPaaS solution via a reseller or an OEM partner).

Evaluation Criteria

Ability to Execute

Gartner analysts evaluate technology providers on the quality and efficacy of the processes, systems, methods or procedures that enable their performance to be competitive, efficient and effective, and to positively affect revenue, retention and reputation.

We evaluate vendors' Ability to Execute in the enterprise iPaaS market using the following criteria:

Product or Service: This criterion assesses core goods and services offered by the vendor for the defined market. It evaluates current product or service capabilities, qualities, feature sets, skills and so on, whether they are offered natively or through OEM agreements and partnerships. This criterion covers diverse capabilities used to achieve, for example, features for enterprise-grade operations, functional capabilities, platform versatility for use cases, integration specialist productivity, ad hoc

integrator productivity, citizen integrator support, multicloud support, and hybrid (cloud/on-premises) deployment.

Overall Viability: This criterion assesses the overall organization's financial health, and the financial and practical success of the business unit. Also considered is 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. Indicative business results include company and product revenue, direct and indirect customer base, profitability, research-and-development investment ratios, and the balance of direct and indirect revenue.

Sales Execution/Pricing: This criterion assesses the vendor's capabilities in all presales activities and the structure that supports them. Included are deal management, pricing and negotiation, presales support and the overall effectiveness of the sales channel. Important characteristics include transparency in pricing, pricing models that support various customer segments, ease of access for evaluation and client growth rates.

Market Responsiveness/Record: This criterion assesses the vendor's ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. It also considers the vendor's history of responsiveness, frequency of release schedule, adjustment of platform features based on customer demand, anticipation of market direction, and new features introduced over the past 12 months.

Marketing Execution: This criterion concerns the clarity, quality, creativity and efficacy of programs designed to deliver the organization's message. This message should be designed to influence the market, promote the brand and the business, increase awareness of products, and establish a positive view of the products, the brand and the 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. Of specific interest are differentiation of buyer journeys, market presence, frequency of appearance in competitions and customer perception.

Customer Experience: This criterion considers relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, it considers the ways in which customers receive technical support or account support. It also covers ancillary tools, customer support programs (and the quality thereof), the availability of user groups and SLAs. Buyers' scrutiny is particularly emphasized, including customers' satisfaction with products and with the vendor, and their willingness to recommend its offering(s) to others.

Operations: This criterion assesses the ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including the skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently. Evaluated characteristics include staffing and organizational design, disaster recovery, ability to make new releases available to clients with minimal disruption, support structure and partner network.

Table 1. Ability to Execute Evaluation Criteria

Evaluation Criteria	Weighting
Product or Service	High
Overall Viability	Medium
Sales Execution/Pricing	High
Market Responsiveness/Record	Medium
Marketing Execution	Medium
Customer Experience	High
Operations	Medium

Source: Gartner (August 2020)

Completeness of Vision

Gartner analysts evaluate technology providers on their ability to convincingly articulate logical statements about the market's current and future direction, innovation, customer needs and competitive forces, as well as how well they correspond to Gartner's view of the market.

We assess vendors' Completeness of Vision for the EiPaaS market using the following criteria:

Market Understanding: This criterion assesses the ability to understand buyers' wants and needs and to translate that understanding into products and services. Vendors with the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance them with their vision. Key for the EiPaaS market is an understanding of the different integration personas and their buyer journeys, the breadth of evolving integration use cases, the growing complexity of deployment models, and the ability to recognize, set and capitalize on trends.

Marketing Strategy: This criterion looks for a clear, differentiated set of messages consistently communicated throughout the organization and externalized through a website, advertising, customer programs and positioning statements. Important features include clear articulation of differentiators and marketing initiatives that support a differentiated industry understanding.

Sales Strategy: This criterion looks for a sound strategy using an appropriate network of direct and indirect sales, marketing, service and communication affiliates to extend the scope and depth of the organization's reach, skills, expertise, technologies, services and customer base. Of special interest are different approaches for inside sales, marketplaces, direct sales, ISV/OEM sales and SI sales.

Offering (Product) Strategy: This criterion assesses the vendor's approach to product development and delivery, especially differentiation, functionality, methodology and feature sets, with a view to fulfilling current and future requirements. These requirements include enterprise-

worthiness, openness, integration developer productivity, ease of operations, multiple integrator persona support, platform versatility to support multiple use cases, core integration features, ecosystem/community support features, and policy management and enforcement. Key considerations include features for enterprise-grade operations, platform versatility, integration specialist productivity, ad hoc integrator productivity and citizen integrator support. Also key are the use of AI (such as ML and NLP) to assist and facilitate development and operations, prepackaged integration processes and templates, and metadata management.

Business Model: This criterion considers the design, logic and execution of the organization's business proposition for achieving continued success.

Vertical/Industry Strategy: This criterion evaluates the vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets. Subcriteria consider platform ecosystems for application domains such as ERP, CRM, HCM, supply chain management (SCM) and product life cycle management (PLM); industry focus, such as on healthcare, manufacturing, financial services, higher education, the public sector or retail; LOB processes, such as marketing, sales, HCM, production, customer support, finance and procurement; cloud platforms, such as those of Alibaba, AWS, Google and Microsoft (Azure); and application vendor ecosystems, such as those of Adobe, Oracle, Salesforce, SAP and ServiceNow.

Innovation: This criterion looks for direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, or defensive or preemptive purposes. It focuses on the application of AI to ease integration challenges, facilities to enable collaboration across integrator personas and emerging use cases (such as RPA, digital integration hub and event stream analytics). Also considered are other innovations that align with emerging market or technology trends, as well as innovations in areas such as pricing, go-to-market approach and sales models.

Geographic Strategy: This criterion evaluates the vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographic areas outside its "home" or native area, either directly or through partners, channels and subsidiaries (as appropriate for the area and market). It considers the vendor's direct commercial and support presence in regions and countries, the data center locations of the iPaaS control plane (for development, governance and operations) and the runtime plane (for execution of integration processes). It also considers those of its partners.

Table 2. Completeness of Vision Evaluation Criteria

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

Source: Gartner (August 2020)

Quadrant Descriptions

Leaders

Leaders have an insightful understanding of the realities of the market, a reliable record, an ability to influence the market's direction, an ability to attract and keep a following, and a capacity to lead.

They establish market trends by identifying new types of business problem to which they can bring significant value by providing new functional capabilities. Having enabled multiple integration use cases — often supported by the large global networks of partners — their platforms are cohesive and functionally rich, and there are regular releases to rapidly address the needs of this fast-evolving market.

Leaders are well-positioned to remain dominant as the market evolves to provide further capabilities over the coming months and years. Leadership cannot be taken for granted, however — in the fast-moving EiPaaS market, one misstep could have catastrophic consequences. In a rapidly evolving market featuring constant innovation, Leaders do not focus solely on current execution. Each also ensures it has a robust roadmap to solidify its position as a market leader and thus help protect buyers' investments.

Challengers

Challengers have been in the market for several years and have notable installed bases of thousands of clients, along with mature or evolving offerings that have proven their worth in multiple integration scenarios. Challengers also have the financial strength and commitment to compete

aggressively in the EiPaaS market. Consequently, they often offer a competitive platform, at least for certain industries and use cases.

Challengers are well-positioned to succeed in this market. However, they have a somewhat limited perspective on how the market will evolve, who the buyers are (and will be), what the use cases are, and how users' expectations will evolve. This results in their offerings being more narrowly focused than those of Leaders. Their vision may be restricted by a lack of a coordinated strategy across various products in their platform portfolio or by a functionally more limited platform roadmap. Alternatively, they may fall short of the Leaders in terms of effective marketing, sales channels, geographic presence, industry-specific content and innovation..

Visionaries

Visionaries demonstrate a strong understanding of emerging technology and business trends, or a position well-aligned with current demand, but they may lack recognition or credibility beyond their customer base or particular domain. They understand the specific requirements of this market and are innovating by means of a combination of technologies, delivery models and go-to-market strategies. Visionaries see their EiPaaS offering as a key element of a broader integration strategy, and may, where applicable, combine software licensing, software subscriptions and as-a-service subscriptions, with EiPaaS being one of many channels used for underlying integration capabilities.

Visionaries may have a background in traditional on-premises integration middleware; as such, they have a good understanding of enterprise integration challenges. However, they may not have the sales and marketing expertise required to sell beyond their traditional IT client base.

Visionaries may enter this market by acquiring another vendor, by significantly reengineering their on-premises products for the cloud or, in some cases, by developing a new EiPaaS technology.

Niche Players

Niche Players typically specialize in a vertical, geographical or functional area, and therefore address only a segment of the market. They may be startups or small companies just starting to succeed, or vendors focused on a specific subset of use cases.

However, their technology is often excellent and their customers express a high degree of satisfaction. Niche Players' offerings can therefore often be the appropriate choice for user organizations that, for example, require local presence and support, want a close relationship with a provider, or seek a platform that focuses on specific requirements. Niche Players' provision of these requirements can often offset risks in other respects.

Niche Players potentially compete with companies from the domain-specific iPaaS market that are targeting this sector. They are also more likely to be targets for acquisition, because they are often specialized EiPaaS players, focused on a relatively narrow function or market segment, that could easily complement a broader integration strategy and platform.

Context

The EiPaaS market is highly fragmented, fast-evolving and overcrowded, which makes choosing a vendor difficult.

Vendors with leading market shares continue to extend the functional footprint of their EiPaaS offerings, often merging them with their classic integration platform software technologies. Accordingly, they go to market with a suite of capabilities packaged in multiple versions to target different use cases, integration personas and market segments.

More and more organizations are adopting EiPaaS offerings as strategic alternatives to classic integration platform software for a growing number of scenarios.

EiPaaS providers typically target application leaders and other buyers looking for a strategic integration platform to use for multiple, often business-critical integration projects, using a range of go-to-market approaches. As such, in a growing number of cases, organizations purchase an EiPaaS to support an integration strategy modernization initiative, as a pivotal component of their HIP strategy.

Given the market's fragmentation, when selecting an EiPaaS vendor it is important to consider:

- Whether the platform is for short-term tactical or long-term strategic use.
- The type and number of endpoints to be connected: SaaS, packaged applications, internally developed applications, mobile apps, social media, file systems, databases and so on.
- Providers' familiarity with, and track record of delivering to, the relevant industry.
- The integration skills of the expected users of the platform.
- The ability to federate the EiPaaS with the established on-premises integration platform, whether in support of specific requirements or in the context of HIP initiatives.
- SLAs and quality-of-service requirements.
- Security and regulatory compliance needs.
- The geographic location of the EiPaaS data centers and support centers.
- The ability to deploy the EiPaaS platform in a hybrid mode, including multicloud options across the EiPaaS public cloud and IaaS public clouds, as well as within the client's data centers.
- The availability and cost of iPaaS skills from the provider and external service providers.
- The long-term cost expectations and available budget.

Gartner recommends starting the selection process after developing a thorough understanding of your requirements and priorities. Be pragmatic and tactical, and evaluate domain-specific iPaaS solutions, where appropriate, for quick wins. Expect disruption in the EiPaaS market as market consolidation continues.

Market Overview

Gartner estimates that the iPaaS market approached \$2.5 billion in revenue during 2019 and grew by approximately 48%, compared with 2018. We estimate that the iPaaS market will reach over \$5.6 billion in revenue by 2024 (see Forecast: Enterprise Infrastructure Software, Worldwide, 2018-2024, 2Q20 Update).

Organizations recognize that traditional integration approaches and on-premises integration technologies cannot fully support the complexity and pervasiveness of integration, or the agility and time to value, required to overcome the digital era's challenges.

Vendors in the EiPaaS market include pure-play providers, established application, data and B2B integration software vendors, and megavendors. These providers built their EiPaaS offerings in different ways.

Buyers can procure many of today's EiPaaS offerings as suites of capabilities, some in a single package and some comprising individual subsuites. The different packaging targets different use cases, different intended audiences and different target markets.

Even during the global recession caused by COVID-19, adoption of EiPaaS offerings continues, although likely at a slower pace. There is emphasis on the need to automate processes, accelerate digital transformation, respond to drastic business changes, and accelerate plans to adopt the cloud in order to contain costs and increase flexibility. Providers will strive to further improve EiPaaS developers' productivity, reduce the time to value and shorten the learning curve to ease deployments and expand their reach to potential buyers. Enhanced product development, with a focus on the use of AI, such as ML and NLP, to assist development and operation, will enrich packaged integration process portfolios, enable CI/CD and DevOps, and extend the range of supported use cases (including in hybrid, multicloud scenarios).

Over time, application leaders will try hard to standardize on a single, strategic EiPaaS to minimize complexity and keep costs under control. However, the fitness for purpose and high productivity of lightweight iPaaS offerings may prove beneficial for LOBs and application teams working on severely time- and budget-constrained projects, which could lead to further iPaaS proliferation.

Gartner Recommended Reading

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

How Markets and Vendors Are Evaluated in Gartner Magic Quadrants

How to Deliver a Truly Hybrid Integration Platform in Steps

Market Guide for Application Integration Platforms

Create a Future-Proof Integration Strategy for Your ERP

Reshape the Data Design of Your APIs to Align With Your Integration Strategy

Innovation Insight: Turbocharge Your API Platform With a Digital Integration Hub

Note 1 The Core Technology Functionality of iPaaS

Common iPaaS functions include:

- Communication protocol connectors, such as FTP, HTTP, Advanced Message Queueing Protocol (AMQP) and Applicability Statement 1 (AS1)/2/3/4.
- Application connectors/adapters for SaaS and on-premises packaged applications.
- Data formats, such as XML, JavaScript Object Notation (JSON) and Abstract Syntax Notation One (ASN1).
- Data standards, such as Electronic Data Interchange for Administration, Commerce and Transportation (EDIFACT), Health Level Seven (HL7) and SWIFT.
- Data mapping and transformation.
- Data quality.
- Routing and orchestration.
- Integration flow development and life cycle management tools.
- Integration flow operational monitoring and management.
- API management.
- Support for various integration scenarios, such as application integration, data integration, B2B ecosystem integration, process integration, IoT integration and RPA.

Evaluation Criteria Definitions

Ability to Execute

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

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

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

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

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

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

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

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

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

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

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

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

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

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

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

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