Ovum

Ovum Decision Matrix: Selecting a Cloud Platform for Hybrid Integration Vendor, 2019–20

Market dynamics and competitive positioning of key vendors

Publication Date: 24 Oct 2019 | Product code: INT003-000400

Saurabh Sharma

Summary

Catalyst

Digital business is driving a proliferation of applications, services, data stores, and APIs that need to be connected to deliver critical business processes. Integration is the lifeblood of today's digital economy, and middleware is the software layer connecting different applications, services, devices, data sources, and business entities. This Ovum Decision Matrix (ODM) is a comprehensive evaluation to help enterprise IT leaders, including chief information officers (CIOs), enterprise/integration architects, integration competency center (ICC)/integration center of excellence (CoE) directors, and digital transformation leaders select a cloud platform provider best suited to their specific hybrid integration requirements.

Ovum view

Ovum's *ICT Enterprise Insights 2018/19* survey results indicate a strong inclination on the part of IT leaders to invest in integration infrastructure modernization, including the adoption of new integration platforms. IT continues to struggle to meet new application and data integration requirements driven by digitalization and changing customer expectations. Line-of-business (LOB) leaders are no longer willing to wait for months for the delivery of integration capabilities that are mission-critical for specific business initiatives. Furthermore, integration competency centers (ICCs) or integration centers of excellence are being pushed hard to look for alternatives that significantly reduce time to value without prolonged procurement cycles.

Against a background of changing digital business requirements, IT leaders need to focus on revamping enterprise integration strategy, which invariably will involve the adoption of cloud platforms for hybrid integration, offering deployment and operational flexibility and greater agility at a lower cost of ownership to meet multifaceted hybrid integration requirements. With this report, Ovum is changing its nomenclature for defining middleware-as-a-service (MWaaS) suites for hybrid integration and, in future, we will be using the term "cloud platforms (or PaaS products) for hybrid integration" to refer to this market.

We follow the specification of National Institute of Standards and Technology (NIST) for PaaS, according to which PaaS as a cloud service model should meet a range of characteristics, including:

- on-demand self-service
- broad network access
- resource pooling
- rapid elasticity
- measured service.

Merely delivering application and/or data integration capabilities via the cloud on a subscription basis does not amount to a PaaS provision for hybrid integration. Some cloud platforms or software components of a cloud platform included in this ODM might not be termed as PaaS according to NIST's specification, which is why we use the term "cloud platform".

User productivity tools and deployment flexibility are key characteristics of cloud platforms for hybrid integration that help enterprises respond more quickly to evolving digital business requirements. With

DevOps practices, microservices, and containerized applications gaining popularity, IT leaders should evaluate the option of deploying middleware (integration platforms) on software containers as a means to drive operational agility and deployment flexibility.

Key findings

- Integration is still predominantly done by IT practitioners, but IT leaders should consider "ease of use" for both integration practitioners and less-skilled, non-technical users, such as power users, when selecting integration platforms for a range of hybrid integration use cases.
- The latest Ovum forecast reveals that integration PaaS (iPaaS) and API platform market segments are expected to grow at a compound annual growth rate (CAGR) of 59.7% and 61.7% respectively between 2018 and 2023, clearly the fastest growing middleware/PaaS market segments.
- The global iPaaS market is showing signs of saturation (not in terms of growth), and vendor offerings do not differ much in terms of technical capabilities. Key areas for iPaaS product development include support for deployment on containers, improvement in user experience (UX) for less-skilled, non-technical users, and machine learning (ML)-led automation of different stages of integration projects ranging from design and development to deployment and maintenance.
- PaaS for hybrid integration will significantly cannibalize the established on-premises middleware market, and by the end of 2019, Ovum expects at least 50% of the new spend (not including upgrades of on-premises middleware or renewal of similar licenses) on middleware to be accounted for by PaaS or cloud-based integration services.
- Major middleware and leading iPaaS vendors dominate this market, even though their routes to the development of a cloud platform for hybrid integration can be quite different.
- PaaS adoption in enterprises is for both strategic and tactical hybrid integration initiatives. IT leaders realize the significant benefits that cloud platforms for hybrid integration bring to the table in terms of greater agility in responding to business requirements and cost savings.
- iPaaS vendors have invested significantly in developing lightweight PaaS-style products for B2B/electronic data interchange (EDI) integration to support key EDI messaging standards, rapid trading partner onboarding and community management, and governance of B2B processes.

Vendor solution selection

Inclusion criteria

Ovum has closely tracked the emerging cloud platforms for hybrid integration vendor landscape over the last four years and we have used these observations as the baseline for inclusion/exclusion in this ODM. The criteria for inclusion of a vendor in this ODM are as follows:

- The cloud platform(s) should deliver significant capabilities across two of the three technology assessment criteria groups: “cloud integration”; “API platform”; and “B2B and mobile application/backend integration”.

- There is substantial evidence that the vendor is interested in pursuing a progressive product strategy that helps ascertain product viability and applicability to a range of hybrid integration use cases.
- Middleware products are not "cloud washed" and individual components demonstrate essential cloud services characteristics, such as multitenancy, resource sharing, and rapid scalability, as well as allowing usage tracking and metering and supporting the enforcement of service-level agreements (SLAs).
- The cloud platform(s) should have been generally available as of March 30, 2019. The vendor must have at least 50 enterprise (paid) customers using various components as of May 31, 2019. We did not want to leave out any vendor because of limitations related to significant revenue realization.
- It should deliver enterprise-grade developer enablement and API-led integration capabilities, and an appropriate UX for less-skilled users (non-developers).
- At least the core middleware product should be architecturally coherent and product/component APIs should be available to support internal integration between different components of the middleware stack.

Exclusion criteria

A vendor is not included in this ODM if:

- The core middleware component provided by the vendor is restricted to API management, and the rest of the capabilities are delivered in partnership with other vendors. For this reason, specialized API management vendors that do not offer any substantial capabilities for other hybrid integration use cases were excluded from this ODM. This means that cloud-based application and data integration capabilities are critical for inclusion in this ODM.
- The vendor is unable to commit required time and resources for the development of research to be included in this ODM. Some vendors, which otherwise would qualify for inclusion in this ODM, opted out of the evaluation exercise and were unable to submit the required level of information in response to the evaluation criteria spreadsheet by the cutoff date. (Jitterbit is the only vendor that qualified for inclusion but opted not to participate without citing any specific reason, and we decided to exclude it from this ODM).
- There is not enough evidence that the vendor is interested in expanding the features and capabilities to cater for the requirements of emerging use cases and exploiting new market trends.
- There are indications that the vendor is struggling to grow its business and has partnered with middleware vendors to defend its position in the market, or the customer base is confined to only specific regions.
- The vendor did not feature in any of the analyst enquiries from enterprise IT leaders and users, and there were other indicators for a lack of investment and a dedicated strategy for middleware products.

Ovum ratings

Market leader

This category represents a leading vendor that Ovum believes is worthy of a place on most technology selection shortlists. The vendor has established a commanding market position with its cloud platform for hybrid integration, demonstrating relatively high maturity, cohesiveness, good innovation and enterprise fit, and the capability to meet the requirements of a wider range of hybrid integration use cases, as well as executing an aggressive product roadmap and commercial strategy to drive enterprise adoption and business growth. In terms of scores, to be a leader in this ODM, a vendor must score 8 out of 10 both on “technology” and “execution and market impact” assessment dimensions.

Market challenger

A cloud platform for hybrid integration vendor in this category has a good market position and offers competitive functionality and a good price/performance proposition and should be considered as part of the technology selection. The vendor has established a significant customer base, with its platform demonstrating substantial maturity, catering for the requirements of a range of hybrid integration use cases, as well as continuing to execute a progressive product and commercial strategy. Some vendors included in this category are “strong performers” in terms of technology assessment but did not achieve consistently high or good scores for the “execution and market impact” dimension, which is an essential requirement for achieving a “market leader” rating.

Market follower

A cloud platform for hybrid integration in this category is typically aimed at specific hybrid integration use cases and/or customer segment(s) and can be explored as part of the technology selection. It can deliver the requisite features and capabilities at reasonable charge for specific use cases or requirements. This ODM does not feature any vendor in this category.

Market and solution analysis

A major market shift has begun and will not slow down

Hybrid integration platform

Ovum defines a hybrid integration platform as a cohesive set of integration software (middleware) products that enable users to develop, secure, and govern integration flows connecting diverse applications, systems, services, and data stores as well as enabling rapid API creation/composition and lifecycle management to meet the requirements of a range of hybrid integration use cases. A hybrid integration platform is "deployment-model-agnostic" in terms of delivering requisite integration capabilities, be it on-premises and cloud deployments or containerized middleware.

The key characteristics of a hybrid integration platform include:

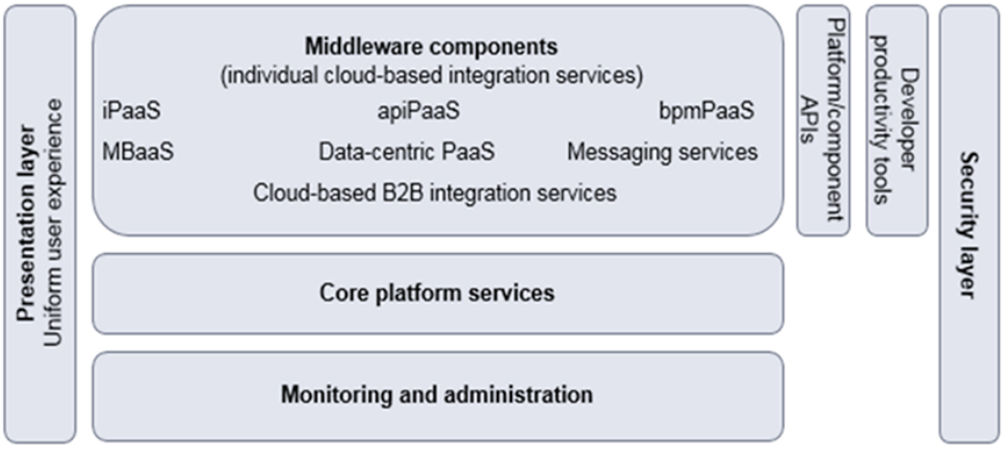
- support for a range of application, service, and data integration use cases, with an API-led, agile approach to integration reducing development effort and costs
- uniformity in UX across different integration products/use cases and for a specific user persona

- uniformity in underlying infrastructure resources and enabling technologies
- flexible integration at a product/component API level
- self-service capabilities for enabling less-skilled/non-technical users
- the flexibility to rapidly provision various combinations of cloud-based integration services based on specific requirements
- openness to federation with external, traditional on-premises middleware platforms
- support for embedding integration capabilities (via APIs) into a range of applications/solutions
- developer productivity tools, such as a "drag-and-drop" approach to integration-flow development and prebuilt connectors and templates, and their extension to a broader set of integration capabilities
- flexible deployment options such as on-premises deployment, public/private/hybrid cloud deployment, and containerization
- centralization of administration and governance capabilities.

For the purpose of this ODM, we are concerned only with cloud platforms (or PaaS products) for hybrid integration. A comprehensive PaaS suite (see Figure 1) combines iPaaS, apiPaaS, mobile-back-end-as-a-service (MBaaS), and other cloud-based integration services such as data-centric PaaS and cloud-based B2B integration services to offer the wide-ranging hybrid integration capabilities required to support digital business.

These individual cloud-based integration services are offered on a subscription basis, with each component having essential cloud characteristics, such as multitenancy, resource sharing, and rapid scalability. The success of iPaaS as an agile approach to hybrid integration has played a key role in the evolution of this market. For enterprises, PaaS products for hybrid integration represent a good opportunity to shift from legacy middleware platforms that require significant upgrades and investment to remain relevant in the current operating environment. Table 1 provides iPaaS and API platforms software market forecast for the period 2018-23.

Figure 1: Reference architecture for PaaS products for hybrid integration



Source: Ovum

Table 1: iPaaS and API platforms global spend ($m), 2018–23

Product	2018	2019	2020	2021	2022	2023	CAGR (2018–23)
API platforms	1,236	2,011	3,274	5,300	8,581	13,678	61.7%
iPaaS	979	1,576	2,569	4,115	6,523	10,176	59.7%

Source: Ovum

Deployment of middleware on software containers is in the early stages and event-driven integration is gaining ground

Cloud-native integration is a natural fit to hybrid IT environments

It is obvious that hybrid IT environments call for a cloud-native integration paradigm that readily supports DevOps practices and drives operational agility by reducing the burden associated with cluster management, scaling, and availability. In the same was as a cloud-native integration paradigm, integration runtimes run on software containers, are continuous integration and continuous delivery and deployment (CI/CD)-ready, and are significantly lightweight and responsive enough to start and stop within a few seconds. Many enterprises have made substantial progress in containerizing applications to benefit from a microservices architecture and portability across public, private, and hybrid cloud environments. Containerized applications and containerized middleware represent a good combination. In cases where an application and a runtime are packaged and deployed together, developers can benefit from container portability and the ease of use offered by the application and middleware combination.

In other terms, it makes sense for applications and middleware to share a common architecture, because DevOps teams can then avoid the overhead and complexity associated with the proposition of running containerized applications on different hardware and following different processes than those that exist with traditional middleware. This is true even in cases that do not involve much re-architecting of the applications, and DevOps teams can still develop and deploy faster using fewer resources.

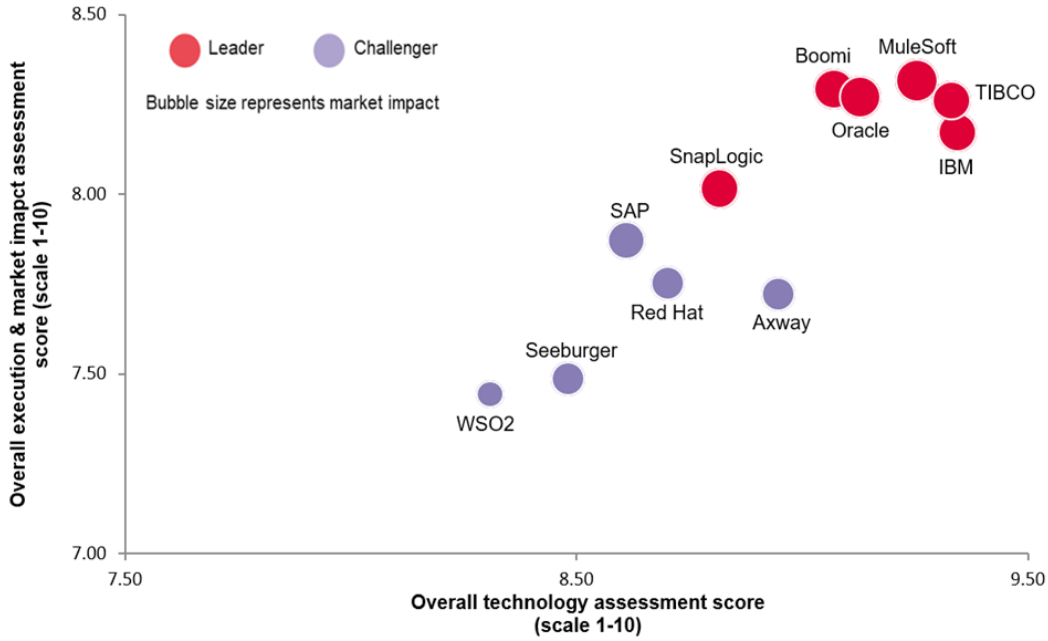
A lot of data is generated in the form of streams of events, with publishers creating events and subscribers consuming these events in different ways via different means. Event-driven applications can deliver better customer experiences. For example, this could be in the form of adding context to ML models to obtain real-time recommendations that evolve continually to meet the requirements of a specific use case. Embedding real-time intelligence into applications and real-time reactions or responsiveness to events are key capabilities in this regard.

For distributed applications using microservices, developers can opt for asynchronous event-driven integration in addition to the use of synchronous integration and APIs. Apache Kafka, an open source stream-processing platform, is a good option for such use cases requiring high throughput and scalability. Kubernetes can be used as a scalable platform for hosting Apache Kafka applications. Because Apache Kafka reduces the need for point-to-point integration for data sharing, it can reduce latency to only a few milliseconds, enabling faster delivery of data to users.

Ovum Decision Matrix: Cloud platforms for hybrid integration, 2019–20

The ODM chart in Figure 2 represents the results of a comprehensive evaluation of 11 cloud platforms for hybrid integration vendors meeting the inclusion criteria. The bubble size representing vendor positioning is determined by the scores achieved for the “market impact” criteria group under the “execution and market impact assessment” dimension. Table 2 provides a list of market leaders and challengers in alphabetical order (not in terms of scores), and subsequent sections also follow this practice.

Figure 2: Ovum Decision Matrix: Cloud platforms for hybrid integration, 2019–20



Source: Ovum

Table 2: Ovum Decision Matrix: Cloud platforms for hybrid integration, 2019–20

Market leaders	Market challengers	Market followers
Boomi	Axway	-
IBM	Red Hat	-
MuleSoft	SAP	-
Oracle	Seeburger	-
SnapLogic	WSO2	-
TIBCO	-	-

Source: Ovum

Market leaders

Market leaders: technology

Table 3 shows the vendors with top-four scores (on a scale of 1–10, including those with the same scores) for each criteria group under the technology assessment dimension. The scores are rounded to the first decimal place.

Table 3: Ovum Decision Matrix: Cloud platforms for hybrid integration, 2019–20 market leaders: technology

Criteria group	Vendor	Score
Cloud integration/iPaaS	Boomi	9.6
	MuleSoft, SnapLogic, and TIBCO	9.4
	IBM	9.3
	Oracle	9.2
API platform	IBM and TIBCO	9.5
	MuleSoft	9.4
	Axway and Red Hat	9.2
	WSO2	9.1
B2B and mobile application/backend integration	Axway	9.6
	Oracle and Seeburger	9.2
	IBM	9.0
	Boomi and SnapLogic	8.7

Source: Ovum

Market leaders: execution and market impact

Table 4 shows the vendors with top-four scores (on a scale of 1–10, including those with the same scores) for three key criteria groups under the execution and market impact assessment dimension. The scores are rounded to the first decimal.

Table 4: Ovum Decision Matrix: Cloud platforms for hybrid integration, 2019–20 market leaders: execution and market impact

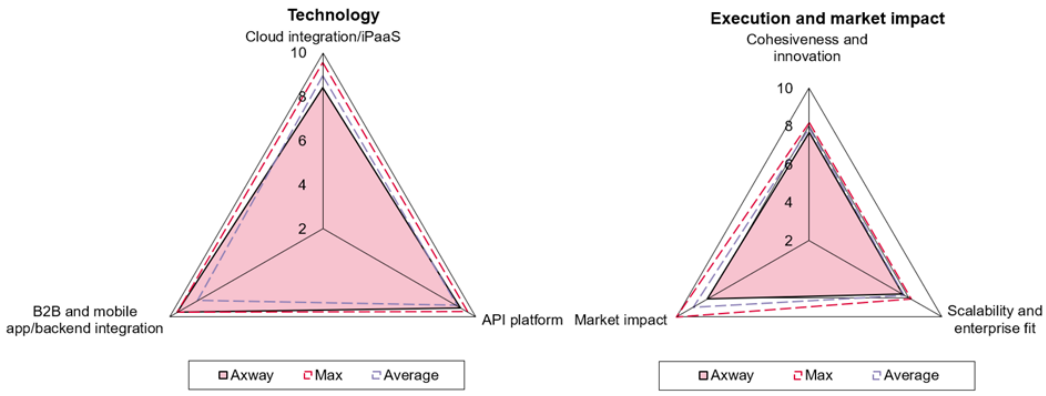
Criteria group	Vendor	Score
Cohesiveness and innovation	MuleSoft	8.2
	Boomi, IBM, Oracle, SAP, SnapLogic, and TIBCO	8.0
	Axway, Red Hat, Seeburger, and WSO2	7.7
Scalability and enterprise fit	Boomi and TIBCO	8.2
	IBM, Oracle 8.0	8.0
	MuleSoft	7.9
	Red Hat	7.7
Market impact	MuleSoft	10
	Oracle	9.8
	Boomi	9.5
	TIBCO and SnapLogic	9.2

Source: Ovum

Vendor analysis

Axway (Ovum recommendation: Challenger)

Figure 3: Axway radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Axway AMPLIFY platform offers a good foundation for hybrid integration use cases

Axway has well-established credentials for API management and B2B integration use cases, as evident from the high scores for the "API platform" and "B2B and mobile app/backend integration" criteria groups under the technology assessment dimension. The acquisition and subsequent integration of Appcelerator enabled Axway to cater for mobile application development and back-end integration use cases.

Axway uses an OEM partnership to extend its platforms existing API-led integration capabilities with Cloud Elements, or more specifically, "Elements" that provide access to an entire category of applications, such as messaging, customer relationship management (CRM), e-commerce, finance, marketing, and document management, via integration to a single API. Both vendors espouse an API-led approach to integration and so there is synergy here. Axway has executed a progressive product strategy and forged partnerships with several ISVs, such as Cloud Elements, Stoplight.io, Entrust, and RestLet (acquired by Talend) to drive adoption.

Transformation in product strategy came at just the right time

With the AMPLIFY platform, Axway transformed its product strategy and directed investment to offer a unified platform that enables users to develop new digital business applications/services and to subsequently integrate them with other applications/services and data stores. This enables users to rapidly connect and share data with trading partners, derive actionable insights to optimize corresponding engagements, and monetize enterprise data assets. The AMPLIFY platform marked Axway's shift from a vendor providing a suite of integration, security, and operational intelligence and analytics products to a vendor offering a cohesive, cloud-based hybrid integration platform, which can now support key hybrid integration use cases. This shift is starting to show good results for Axway, which claims that about 24,000 active organizations are using the AMPLIFY platform, a smaller share of which are paid customers. If it was only about technology assessment, Axway would qualify as a leader. However, it narrowly missed out on scoring the required 8 out of 10 for the "execution and market impact" assessment dimension, a key criterion to be rated an overall leader in this ODM.

Weaknesses

Specific gaps exist in its iPaaS capabilities and it needs to improve brand recognition in cloud-based hybrid integration platforms market

Part of Axway's iPaaS are currently limited to Europe and US datacenters, while the platform's virtual private cloud (VPC) customers are deployed and available in all key regions (the US, EU, and Asia-Pacific). Native integration to blockchains and key RPA tools in missing. ML-based automation is a work in progress, but Axway plans to offer automation for data mapping. These are important areas for improvement as far as Axway's iPaaS is concerned, because many of Axway's key competitors are already offering these features and capabilities.

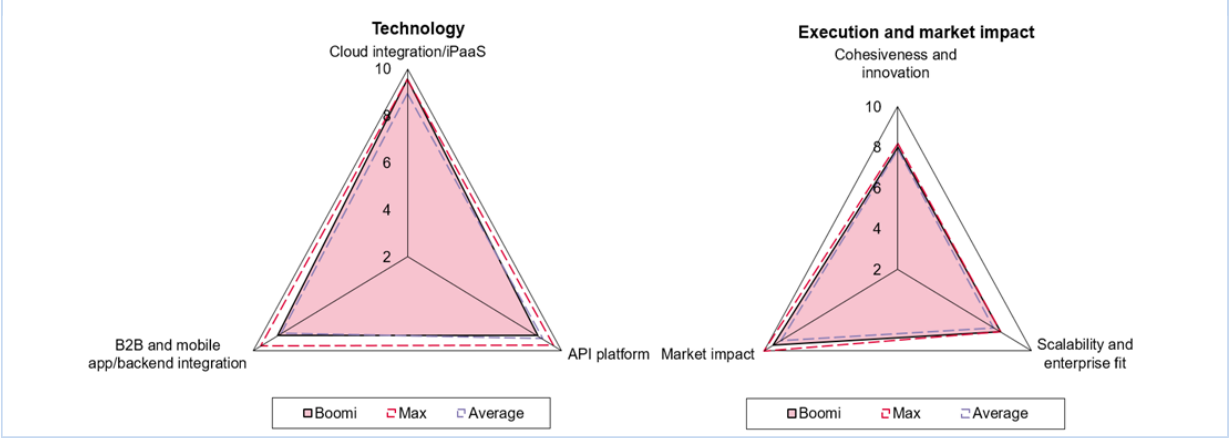
Axway featured in a few Ovum conversations with enterprise IT leaders over the last couple of years. Its revenue from and the customer base for the AMPLIFY platform is significantly lower (considering Axway's overall size and the time since the general availability of the AMPLIFY platform) than several key vendors in this market. However, the company is part way through transitioning from a licensing to

a subscription model. This is affecting Axway's topline revenue but is a strategy for the longer term. The vendor expects that a return to topline growth will be evident by the end of 2020.

Axway must focus on investing in marketing and effective evangelism to increase the visibility and raise the profile of its AMPLIFY platform, although the vendor says it is seeing significant growth quarter-on-quarter. It is worth noting that Axway's Catalyst team comprising experts in digital transformation and API-led innovation areas can help enterprises realize positive outcomes from digital transformation and integration modernization initiatives. The corresponding business strategy would benefit from a keen focus on winning net new deals involving a range of hybrid integration use cases, and Axway has achieved some recent success in this regard.

Boomi (Ovum recommendation: Leader)

Figure 4: Boomi radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Leading iPaaS vendor with growing hybrid integration capabilities

Boomi, a Dell Technologies Business, achieved the highest score for the "cloud integration/iPaaS" criteria group under the technology assessment dimension. It has well-established credentials in the global iPaaS market, with thousands of large and midsize enterprises as customers. Boomi has expanded the capabilities of its iPaaS to support a range of hybrid integration requirements beyond on-premises and SaaS applications and data integration. Boomi's iPaaS caters to the requirements of two key user personas: developers/integration practitioners and less-skilled, non-technical users. Boomi recently introduced the Boomi API gateway and developer portal to enable secure and scalable interactions with external parties, enhance API discoverability, and provide driver engagement across a broader API consumer base.

There is a faster deployment option for Boomi iPaaS for Pivotal Kubernetes and Pivotal Application Services environments (PKS/PAS) available from the Pivotal Cloud Foundry marketplace. Boomi Enterprise Innovation Services and Architectural Services provide a package of integration services, advice from architecture experts, and support and resources, with the flexibility to customize to specific customer needs. Boomi provides a cloud-managed B2B/EDI integrated service as part of its unified platform. Users can build, deploy, and manage both traditional EDI and newer web services in the cloud. To simplify the configuration of trading partner profiles and B2B processes, Boomi provides

a “configuration-based” platform that eliminates the cost and complexity of writing code. It is impressive to see how Boomi’s integration platform has expanded from iPaaS and API-led integration to cover B2B/EDI integration and simple file transfer use cases.

Good feature-price performance and early mover in exploiting ML for automation

On a comparative basis, Boomi offers a good feature-price value for enterprises of all sizes. This is evident from its joint highest score for the “scalability and enterprise fit” criteria group under execution and market impact assessment dimension.

Boomi uses ML in the form of Boomi Suggest, Boomi Resolve, and Boomi Assure . It was arguably the first mover in the iPaaS market to start delivering ML-based automation. The Boomi Suggest feature uses millions of indexed mappings to offer automatic recommendations on mappings for new integrations based on successful configurations developed by other users in the past. Boomi also uses crowdsourced contributions from its support team and user community to offer resolutions to common errors within the iPaaS UI. Boomi Suggest offers mapping suggestions with "confidence rankings", data transformation, and error resolutions via correlations to simplify integration-flow development.

Weaknesses

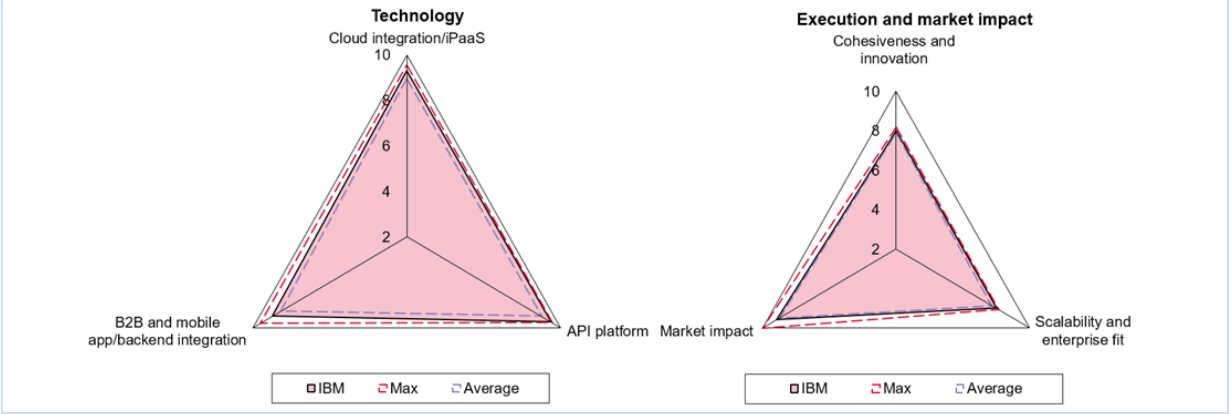
Needs to address gaps in the features of Boomi API Management

Boomi API Management was developed as an extension of the Boomi AtomSphere Platform to cater to the needs of existing users. Since then, the product has expanded in terms of key features and capabilities, and 2018 was a year of major advances in the capabilities of Boomi API Management. However, some of Boomi’s nearest competitors in the iPaaS market have more mature and well-established API platform capabilities.

Over the last couple of years, there has been a slightly decoupled (from core the iPaaS product) and dedicated product roadmap and strategy for Boomi API Management. Areas from improvement include support for GraphQL and gRPC standards, greater coverage in performance monitoring reports on key metrics, automated failover for high availability and reliability, better support for the Node.js framework, and a sophisticated API deprecation and retirement processes. Boomi is capable of filling these gaps and developing this as a leading API platform, and recent announcements indicate that this a key priority for Boomi’s product and business management.

IBM (Ovum recommendation: Leader)

Figure 5: IBM radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Well-rounded offering catering to the requirements of key hybrid integration use cases

IBM achieved consistently high scores across the various criteria groups under the technology and execution and market impact assessment dimensions. The IBM Cloud Pak for Integration caters to a range of hybrid integration requirements, including on-premises and SaaS application and data integration, rapid API creation/composition and lifecycle management, API security and API monetization, messaging, event streaming, and high-speed transfer. With IBM Cloud Pak for Integration's container-based architecture, users have the flexibility to deploy in any environment with Kubernetes infrastructure, as well as to use a self-service approach to integration. IBM is extending its integration platform's API capabilities to provide support for GraphQL management, and this approach decouples GraphQL management from GraphQL server implementation. IBM Sterling B2B Integration Services and IBM Mobile Foundation cater to the requirements of B2B/EDI integration and mobile application/back-end integration respectively.

The only vendor that can function as a true strategic partner for enterprises embarking on integration modernization initiatives

IBM's Agile integration methodology focuses on delivering business agility as part of integration modernization initiatives. It espouses the transitioning of integration ownership from centralized integration teams to application teams, as supported by the operational consistency achieved via containerization. On the operational agility side, cloud-native infrastructure offers dynamic scalability and resilience. For large enterprises embarking on integration modernization initiatives, this methodology can cater to people, processes, and technology aspects to provide the necessary advice and guidance to help enterprises achieve faster time to value across diverse deployment environments. Ovum analyzed the competitive services offerings of all vendors in this ODM and found IBM's agile integration methodology to be the most comprehensive and well thought out.

Weaknesses

The B2B/EDI integration offering is architecturally different, so users need a separate offering for mobile application/backend integration

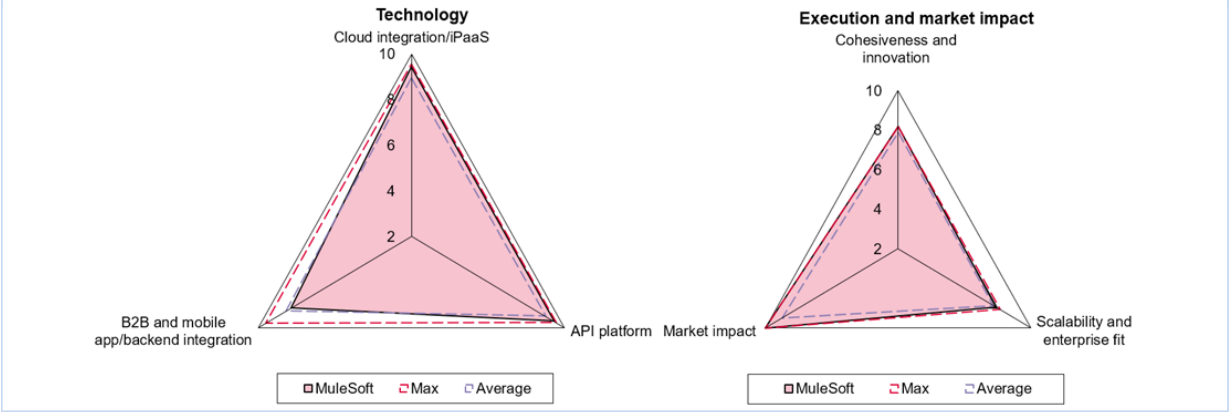
IBM Sterling B2B Integration Services for supporting B2B/EDI integration use cases is architecturally different than the products under the IBM Cloud Pak for Integration. IBM is working on filling this gap and is developing a lightweight PaaS product for B2B/EDI integration. IBM Mobile Foundation is not part of the "Connect" set of product portfolio and is an add-on product. Another area for improvement is the use of ML for automating the different stages of integration projects, ranging from design and development to deployment and maintenance, which IBM is capable of providing by using the capabilities of its Watson platform. Some of the ML-related capabilities are part of IBM's product roadmap for this middleware portfolio.

Frequent branding, rebranding, and renaming creates confusion in the market

IBM's middleware portfolio has undergone various iterations of branding, rebranding, and renaming over the years and this does create confusion in the market. From the days of IBM WebSphere Cast Iron Live to IBM API Connect or even IBM WebSphere Cast Iron Cloud Integration to IBM App Connect, IBM has certainly expanded features and capabilities or significantly transformed specific parts of its middleware portfolio. However, frequent rebranding and renaming exercises can be avoided to ensure a strong, sustained enterprise mindshare, and this will help in avoiding unnecessary confusion in the market. New and potential customers for IBM Cloud Pak for Integration should ask for customer references and case studies and check that these align with their specific requirements.

MuleSoft (Ovum recommendation: Leader)

Figure 6: MuleSoft radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Comprehensive and cohesive cloud platform catering to a range of hybrid integration use cases

MuleSoft Anypoint Platform is a cohesive PaaS-style product catering to key hybrid integration use cases, this is evident from MuleSoft's high scores across the "cloud integration" and "API platform" criteria groups under the technology assessment dimension. MuleSoft has further simplified it UX with the API Community Manager, upgrades to Anypoint Exchange, an improved integrated development environment (IDE) for the Mule 4 runtime (Studio 7), Anypoint Visualizer, and template-driven design and note-based collaboration for non-technical users (Flow Designer). Anypoint Partner Manager,

MuleSoft's lightweight PaaS-style B2B solution, caters to the requirements of B2B/EDI use cases, including partner management reporting, partner onboarding, B2B transaction configuration, B2B transaction tracking, and audit logging. While it is not an extensive B2B/EDI integration platform, it can be used by MuleSoft's customers for meeting less complex B2B/EDI integration needs.

MuleSoft is one of the very few vendors that can support the requirements of all use cases included in this ODM via an architecturally coherent cloud platform that qualifies as a pre-play PaaS product. Visual API designer, API modeling framework parser, API functional monitoring, and several new connectors for a range of applications and endpoints, are some of the capabilities introduced over the last year to drive developer productivity.

Weaknesses

ML-based automation can be improved

Using the application network graph, MuleSoft provides a recommendation engine for suggestions on the next best action. The first application of this engine is the ML-based automapper in flow designer, and MuleSoft has dedicated plans to introduce new capabilities to drive ML-based automation. These are steps in the right direction. However, given MuleSoft's track record of innovation and fast response to emerging market dynamics, by now it could have exploited ML capabilities to automate different stages of integration projects, ranging from design and development to deployment and maintenance. Some of its nearest competitors already have a better set of capabilities driving ML-based automation.

Ovum SWOT assessment

Strengths

Comprehensive and cohesive cloud platform catering to a range of hybrid integration use cases

MuleSoft Anypoint platform is a cohesive PaaS-style product catering to key hybrid integration use cases, which is evident from MuleSoft's high scores across the "cloud integration" and "API platform" criteria groups under the technology assessment dimension. MuleSoft has further simplified its UX with API Community Manager, upgrades to Anypoint Exchange, an improved integrated development environment (IDE) for the Mule 4 runtime (Studio 7), Anypoint visualizer, and template-driven design and note-based collaboration for non-technical users. Anypoint B2B solution caters to the requirements of B2B/EDI use cases, with partner management and reporting supported via Anypoint Partner Manager. Anypoint B2B solution is a lightweight PaaS-style product supporting trading partner onboarding, B2B transaction configuration, B2B transaction tracking, and audit logging. While it is not an extensive B2B/EDI integration platform, it can be used by MuleSoft's customers for meeting less complex B2B/EDI integration needs.

MuleSoft is one the few vendors that can support the requirements of all use cases included in this ODM via an architecturally coherent cloud platform that qualifies as a pre-play PaaS product set. Visual API designer, API Modeling Framework parser, API functional monitoring, and several new connectors for a range of applications and endpoints are some of the capabilities introduced over the last year to drive developer productivity.

MuleSoft has seen rapid growth since its acquisition by Salesforce

MuleSoft is an integration business of over $500m within the broader Salesforce business lines. It has grown much faster than some of its established and larger competitors. The Salesforce acquisition

has helped drive broader adoption of MuleSoft Anypoint Platform, both across existing large and midsize Salesforce customers. Because of this growth, there is a key focus on providing a compelling UX to less-skilled, non-technical users. MuleSoft enjoys strong brand recognition in the iPaaS and API platform markets as well as the cloud-based middleware for hybrid integration market. Contrary to the belief of some of its competitors, MuleSoft does not face a major hindrance driven by potential concerns about the neutrality of an integration vendor. MuleSoft's growth is driven via both direct sales and packaged integration routes.

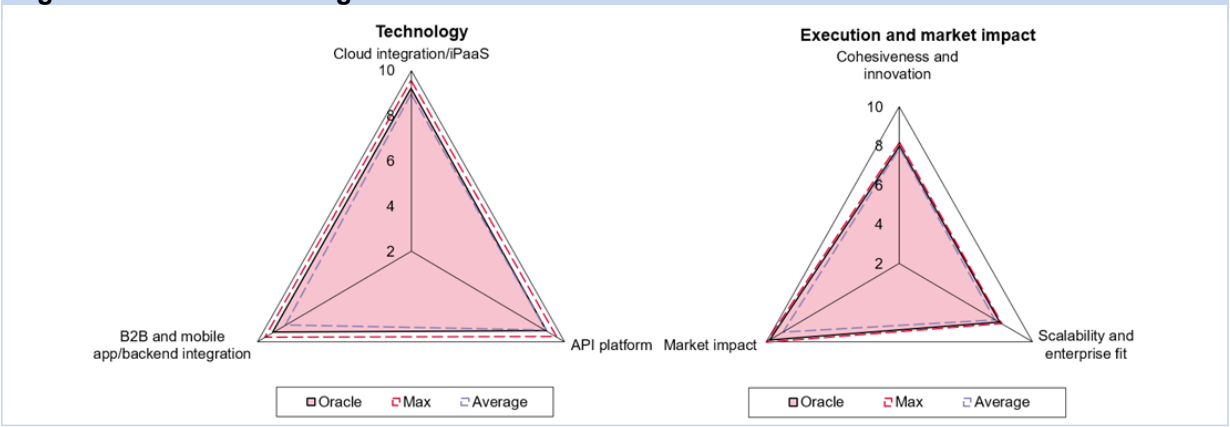
Weaknesses

ML-based automation could be improved

Using the application network graph, MuleSoft provides a recommendation engine for suggestions on the next best action. The first application of this engine is the ML-based automapper in flow designer and MuleSoft has dedicated plans to introduce new capabilities to drive ML-based automation. These are steps in the right direction. However, given MuleSoft's track record of innovation and fast response to emerging market dynamics, it could have exploited ML capabilities by now to automate different stages of integration projects, ranging from design and development to deployment and maintenance. Some of its nearest competitors already have a better set of capabilities driving ML-based automation.

Oracle (Ovum recommendation: Leader)

Figure 7: Oracle radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

A well-balanced, comprehensive PaaS for hybrid integration product set

Oracle has a well-rounded PaaS for hybrid integration portfolio and achieved high scores for various criteria groups under the technology assessment dimension. Oracle Integration Cloud, Oracle's iPaaS solution has seen rapid growth in terms of revenue over the last three years and, along with other PaaS offering of the portfolio, such as Oracle API Platform, Oracle SOA Cloud Service, and Oracle Mobile Hub, forms a good option for all key hybrid integration use cases. Oracle Self-Service Integration Cloud service aimed at less skilled, non-technical users allows them to build and consume simple integration recipes without any need to code. Oracle offers a uniform UX across various products of this middleware portfolio, something which many of its competitors have struggled to offer.

The Oracle API Platform offers a range of capabilities for API creation and end-to-end lifecycle management, and has evolved into a fairly competitive offering over the last three to four years. Oracle exploits ML capabilities for providing recommendations at various stages of the design, testing, and deployment cycle, including but not limited to data mapping, business object/API recommendations in context, and the best next action to provide the logical next step in the flow. Insight capability for business integration analytics is a differentiator for Oracle.

Rapid sustained revenue growth over the last three to four years

Oracle has seen rapid revenue growth for its PaaS for hybrid integration portfolio. This has translated into several thousands of large enterprise customers using multiple PaaS offerings to tackle hybrid integration challenges. Oracle has also had success in cross-selling and upselling PaaS products to existing customers, as well as adding a significant number of new customers and securing one of the leading market shares. Most of this success in driving adoption and revenue growth can be attributed to aggressive execution against ambitious product roadmaps, and of course, Oracle's financial muscle to invest billions of dollars in new product development and mobilize a large global salesforce is also a key strength.

Weaknesses

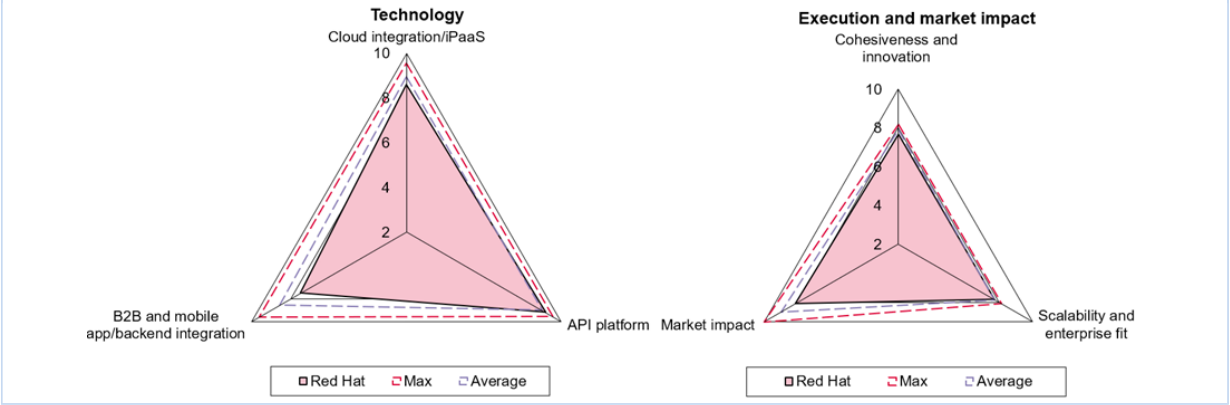
Specific gaps in products need to be addressed with a focus on the usability for non-Oracle endpoints and workloads

In terms of its API platform, Oracle should focus on providing support for GraphQL and gRPC standards and SLA compliance, as well as built-in predictive analytics and the ability to send alerts and notifications to subscribers when APIs are versioned is other areas for improvement. Containerized middleware deployment is an emerging trend and one that many of Oracle's competitors are exploiting for revenue growth. While this is not an officially supported topology from Oracle, containerized middleware deployment is planned for the on-premises execution engine.

When it comes to non-Oracle endpoints and workloads, many enterprise IT leaders are not sure of the usability of Oracle PaaS for integration use cases. They have an understanding that Oracle middleware's usability is limited to Oracle-to-Oracle and Oracle-to-non-Oracle endpoints. This is definitely not the case with Oracle iPaaS, and Ovum has seen various implementations involving non-Oracle to non-Oracle endpoints/applications. Oracle should focus on changing this viewpoint and should deliver more specific messaging for "non-Oracle only" use cases.

Red Hat (Ovum recommendation: Challenger)

Figure 8: Red Hat radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Open source innovation and growing hybrid integration capabilities

Red Hat's acquisition by IBM was recently completed, and IBM has emphasized that Red Hat will continue to operate as a separate unit within IBM and will be reported as part of IBM's Cloud and Cognitive Software division. Our analysis is based on the assumption that this setup in IBM will continue. Red Hat has a long history of open source prowess and engineering expertise that has enabled IT practitioners to experiment and deliver new functionality with its middleware products. Red Hat Fuse was an early entrant to the hybrid integration market, with a focus on cloud-native integration developers. Red Hat Fuse Online (part of Red Hat Integration), Red Hat's iPaaS offering is different in the sense that it was developed with a key focus on providing a better UX to less technical users. The API platform component of Red Hat Integration exploits the capabilities of 3scale API management and Fuse integration, and is a functionally rich solution for API lifecycle management. Red Hat achieved a high score for the "API platform" criteria group under the technology assessment dimension. Red Hat partners with Trace Financial for EDI-based transformations. For mobile app/back-end integration, Mobile Developer Services (included with Red Hat managed integration) provide key mobile app development capabilities optimized for containers, microservice architectures, and hybrid cloud deployments. This component exploits the capabilities of Feed Henry, a mobile application platform vendor acquired by Red Hat in 2014.

Red Hat acquired JBoss in 2006 and grew its middleware business for over a decade. Owing to its business model, it took some time for Red Hat to figure out the emerging opportunities in a market where enterprise service bus (ESB) and service-oriented architecture (SOA) infrastructure adoption was declining and iPaaS and API management market segments were growing at high double-digit rates. Then came the trend of deployment and management of middleware on software containers. Red Hat was able to develop a strategy that did not deviate much from its heritage and still deliver products that could compete with iPaaS and API-led integration platforms. This is applicable for serious buyers that are willing and have the capability to experiment and innovate with open source middleware.

Red Hat's PaaS portfolio for hybrid integration is a good option for developers and integration practitioners that appreciate the capabilities and flexibility of open source middleware. The cost of exit in a proprietary middleware context is quite high, and it is not easy to achieve a significant level of interoperability with application infrastructure and middleware platforms offered by other vendors. Red Hat Integration as an open source middleware product offers users the flexibility to try and experiment with small integration projects and see what works best for a particular requirement or integration scenario. In a world where a drag-and-drop approach and pre-built connectors and templates are marketed as nirvana for cloud integration, it is good to see Red Hat making integration technical again. With time, we expect Red Hat's customer base and revenue for this middleware portfolio to grow to an extent where it is comparable to the other iPaaS vendors that provide API lifecycle management capabilities.

Portable architecture and cost-effectiveness

The ability to keep a fully supported and portable architecture intact across private, public, and managed cloud is a key differentiator for Red Hat in this market segment. Red Hat's strategy is simple: exploit the best open source technologies in the market and communities and adopt new projects based on the market direction. This enables Red Hat middleware to offer better scalability than proprietary or "open core" competitive offerings. Red Hat Integration as a package subscription includes app integration, data integration, messaging, data streaming, and API management capabilities and is bundled with the Red Hat OpenShift container platform. The cost of a one-year subscription for Red Hat Integration is significantly lower than that provided by some of the vendors included in this ODM. Enterprises with access to developers capable of exploiting open source middleware for tackling complex integration challenges can use Red Hat Integration to reduce the costs for hybrid integration projects. If it was only about technology assessment, Red Hat would qualify as a leader. However, it didn't achieve consistently high scores for the "execution and market impact" assessment dimension, a key criterion to be rated a leader in this ODM.

Weaknesses

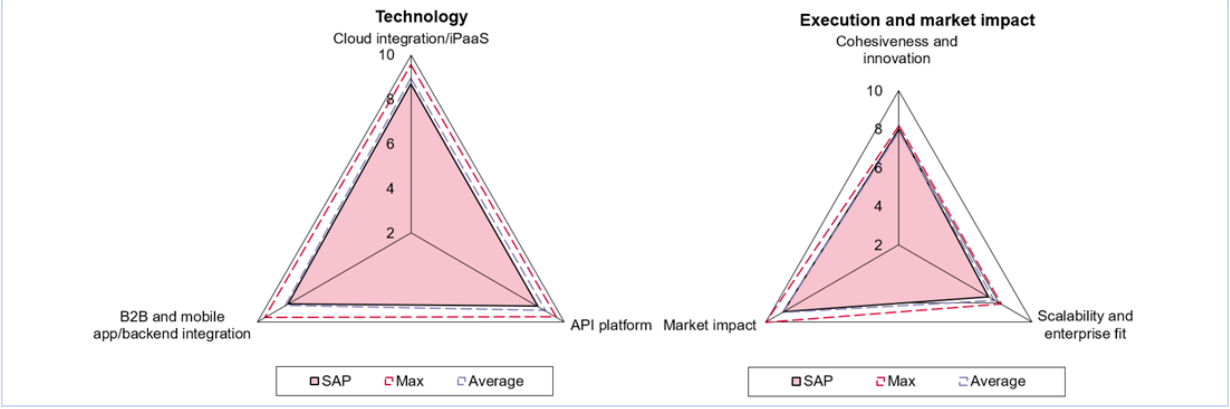
Late to market with an option for less skilled users

ICCs/integration COEs are no longer in the driver's seat and LOBs are aggressive in terms of moving ahead with the adoption of iPaaS for SaaS integration. Some of these products also provide simpler capabilities for rapid API creation and API-led integration. While Red Hat Fuse Online is quite different from Red Hat Fuse in terms of its UX, it still does not offer the type of "ease-of-use" in development of integration flows as is the norm with modern iPaaS solutions. For this reason, Red Hat does not compete head on for tactical integration projects driven by LOBs. This has more to do with Red Hat's position in the market and its core customer base. Red Hat offers a range of technical connectors, but there are gaps in terms of the coverage of connectors to the common SaaS applications used in enterprises. This again is a basic characteristic of modern iPaaS solutions and one of the reasons why iPaaS has gained traction in the developer and integration practitioner community and less-skilled, non-technical users.

Red Hat does not really compete with point solutions, such as the use of iPaaS for SaaS integration in a LOB, or for that matter, standalone API management. It functions better as a middleware stack vendor. We do not see this as a limitation for large enterprises capable of using open source middleware to solve complex integration issues in hybrid IT environments because rest of the user base was never a sweet spot for Red Hat.

SAP (Ovum recommendation: Challenger)

Figure 9: SAP radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Growing hybrid integration capabilities and a progressive product roadmap

SAP supports the various key use cases included in this ODM, including cloud integration, API lifecycle management, B2B/EDI integration, and mobile app and back-end integration. SAP Cloud Platform Integration Suite, SAP's iPaaS offering, provides an intuitive web interface with pre-built templates. The integration adviser uses ML capabilities and crowd-sourcing to offer a proposal service for message implementation and mapping guidelines. SAP has a dedicated roadmap for the integration adviser, including complex pattern mapping, optimized integration flow templates offering partner discovery, and further improvements in the proposal service. SAP recently introduced new features and capabilities, such as a public trial version, support for Microsoft Azure in a production release, self-service subscription enablement of integration platform tenants, new connectivity options, and trading partner management. SAP Cloud Platform Integration Suite is unique in the sense that it is a vendor-managed multicloud iPaaS available on a pay-as-you-go license model (SAP Cloud Platform Enterprise Agreement).

SAP Cloud Platform API Management is SAP's API lifecycle management product that offers standards-based API access to REST/OData or SOAP services, API analytics on consumption and operations, enterprise-grade security, and developer-centric services to enable users to subscribe, use, and manage API consumption. SAP Cloud Platform Integration Suite supports mobile app and back-end integration requirements. SAP has gradually developed a hybrid integration platform that can be consumed as PaaS. SAP achieved a good score for the "cohesiveness and innovation" criteria group under the execution and market impact assessment dimension.

Weaknesses

Gaps in iPaaS and API lifecycle management capabilities

SAP does not support the deployment of iPaaS and API lifecycle management solutions on software containers. SAP Cloud Platform API Management is available as a fully cloud-managed service. SAP's hybrid roadmap for the second half 2020 includes complementing the cloud service with a containerized local gateway runtime that can run in a customer's private cloud environment. There is

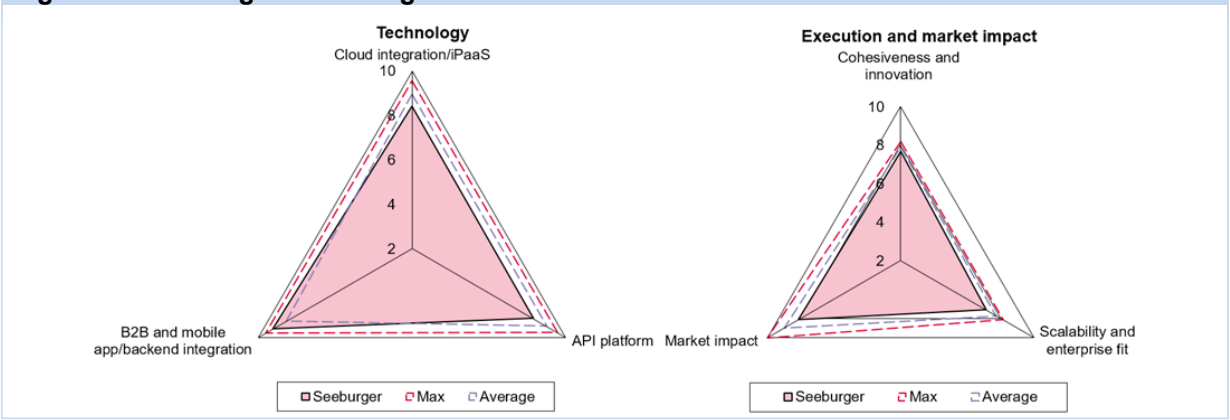
also scope for improvement in the UX for less skilled, non-technical users. Gaps in terms of features and capabilities of SAP Cloud Platform API Management include support for GraphQL and gRPC standards and built-in predictive analytics. SAP does not offer an MFT product as a cloud service, and in the B2B/EDI integration context, SAP Cloud Platform Integration Suite offers an API-based trading partner solution. An improved (next-generation) trading partner management is planned for next year. These are some of the key areas for improvement that should be addressed soon to respond to emerging market dynamics and customer requirements and to remain competitive with the leading vendors in this market.

Product marketing and execution need to improve

SAP's product strategy for this product portfolio is driven by the requirements of core SAP ecosystem users, and it focuses on upselling and cross-selling to existing customers using SAP applications, on-premise middleware, and other software products. While this is a good option to capitalize on the low-hanging market opportunity, such a strategy can slow down the long-term evolution of a leading PaaS vendor providing a hybrid integration platform. This reflects in the number of customers and revenue SAP has realized for this product portfolio, which is lower than several vendors included in this ODM. Over the last couple of years, SAP featured sparsely in Ovum's conversations with enterprise IT leaders embarking on hybrid integration and integration modernization initiatives. It is no different when it comes to conversations on leading iPaaS vendors because SAP does not enjoy substantial brand recognition beyond its core SAP ecosystem. There is significant scope for improvement in SAP's product marketing, which should focus on improvising the visibility and raising the profile of SAP Cloud Platform Integration Suite.

Seeburger (Ovum recommendation: Challenger)

Figure 10: Seeburger radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Seeburger BIS in the cloud offers foundational capabilities for hybrid integration use cases

Seeburger's cloud platform for hybrid integration uses the features and capabilities of the underlying Seeburger Business Integration Suite (BIS). Seeburger's middleware stack is well integrated and includes only home-grown solutions. This ensures interaction between the individual modules, and increases the overall stability and availability of the integration platform. Seeburger's BIS portal is a

unified UI layer for the entire platform, regardless of the deployment model. Seeburger BIS in the cloud provides SaaS integration, B2B/EDI as-a-service, API platform, and MFT as-a-service capabilities. Seeburger BIS can be deployed across various IaaS cloud environments, and there is support for deployment on containers.

Seeburger concentrates on delivering iPaaS as a partner to its customers, and not only operates the integration platform (iPaaS) on a technical level, but also provides them with specialist personnel on request. At the same time, Seeburger is focusing on extending iPaaS support for different IaaS providers. Seeburger's middleware product strategy means that cross-selling and upselling to existing customers represents a low-hanging opportunity. On a comparative basis, Seeburger's cloud platform for hybrid integration offers foundational capabilities for tackling a range of integration issues. API creation is supported by a wizard and the BPMN design tool enables the composition of platform services into a new API via a simple drag-and-drop approach. On the B2B/EDI integration side, for trading partner onboarding, Seeburger's Community Management Application (CMA) enables the use of web forms that can be designed by users. In addition, tailored forms can be created to collect all the required information to streamline the onboarding process. Seeburger achieved a high score for the "B2B and mobile app/backend integration" criteria group under the technology assessment dimension.

Weaknesses

Gaps in iPaaS and API platform capabilities

In the context of iPaaS capabilities, Seeburger does not provide pre-built, dedicated connectors to common endpoints and applications, such as marketing tools, collaboration applications, financial applications, content management systems, analytics data warehouses, and RPA tools. This is, however, part of 2020 product roadmap. ML-based automation across different stages of integration projects, ranging from design and development to deployment and maintenance is not provided, though it is part of the product strategy and roadmap. There is scope for improvement with a tailor-made UX for less skilled, non-technical users.

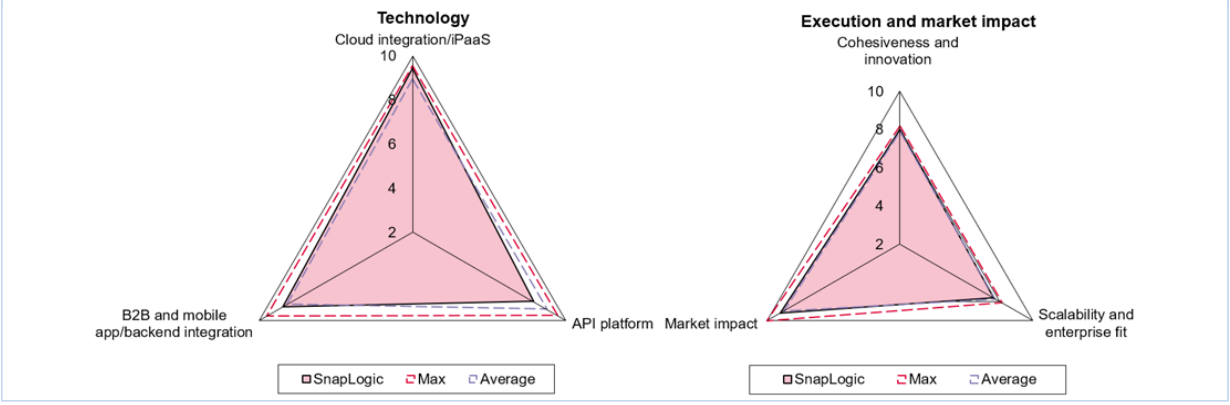
In the context of API platform capabilities, areas for improvement include support for GraphQL and gRPC standards, wider coverage via dashboard for tracking key metrics and performance monitoring reports on key metrics, built-in predictive analytics capability, and better support for Node.js framework. Seeburger must focus on filling these gaps to effectively compete with its nearest competitors.

Need to improve brand awareness in the cloud platforms for hybrid integration market

While Seeburger has been in the integration software business for a long time, it is a relatively new vendor in cloud platforms (PaaS) for the hybrid integration market. Over the last few years, Seeburger has used the capabilities of its BIS in the cloud to expand coverage of hybrid integration use cases, including SaaS integration and API-led integration (B2B/EDI integration was always a strong area for Seeburger). However, in comparison to leading iPaaS and API platform vendors, Seeburger has a lower brand awareness in this market. Seeburger has featured only sparsely in Ovum's conversations with enterprise IT leaders over the last couple of years. This is also reflected in the relatively small revenue and customer base Seeburger has for this product portfolio. This is not surprising because other vendors included in this ODM had entered this market segment well ahead of Seeburger. Seeburger must invest in marketing and evangelism to raise the visibility and profile of its cloud-based hybrid integration platform.

SnapLogic (Ovum recommendation: Leader)

Figure 11: SnapLogic radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Timely expansion from an iPaaS to a PaaS portfolio aimed at a range of hybrid integration use cases

SnapLogic Enterprise Integration Cloud, SnapLogic's iPaaS in its previous form, was a good product with strong credentials across both data and application integration use cases. SnapLogic Intelligent Integration Platform is a broader PaaS-style product aimed at a wider range of use cases, and not limited to only iPaaS and API-led integration. SnapLogic achieved the joint second highest score for the "cloud integration/iPaaS" criteria group under the technology assessment dimension. The hybrid integration platform marketed as an "Intelligent Integration Platform" offers AI-enabled workflows and self-service UX to simplify and accelerate time to value for application and data integration initiatives.

Moving beyond partnerships, SnapLogic has extended its integration platform to API lifecycle management, a good move at the right time. The extended integration platform offers a visual paradigm with a low code/no code approach for iPaaS and API lifecycle management use cases. The August 2019 release of the platform introduced a new API developer portal to expose API endpoints to external consumers. SnapLogic B2B solution integrates its Intelligent Integration Platform with a cloud-based B2B gateway to offer trading partner community management, support for a range of EDI standards, EDI message translation, and transaction monitoring with an audit trail. The combined SnapLogic integration product portfolio is functionally rich and compares well with the larger vendors in this market.

Substantial strengths across application and data integration use cases and early mover in offering ML-based automation

While we have not looked extensively at data integration use cases in this ODM, it is worth highlighting that if application and data integration are considered together, there are very few vendors that can compete with SnapLogic. Until 2017, SnapLogic's product strategy tilted toward application and data integration use cases, but with the introduction of API lifecycle management and B2B integration capabilities, it has positioned itself as a capable cloud-based hybrid integration platform provider.

On an overall basis, SnapLogic is one of the few vendors offering ML-based automation capabilities across the integration lifecycle. SnapLogic's Iris AI uses AI/ML capabilities to automate highly repetitive, low-level development tasks. Its Integration Assistant provides step-level suggestions for developing an integration flow, as well as offering recommendations for pipeline optimization. Moreover, SnapLogic Data Science is offered as a self-service solution to accelerate ML development and deployment with minimal coding.

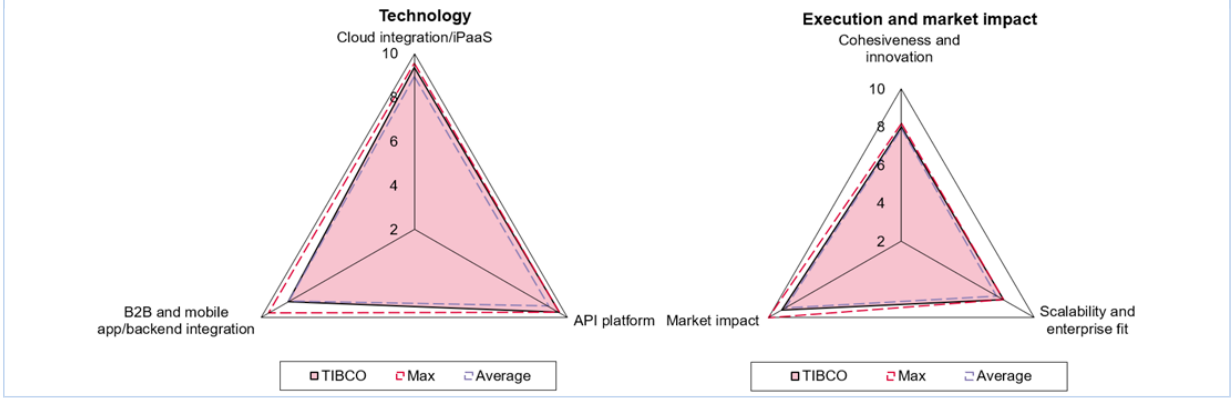
Weaknesses

Specific gaps in terms of API platform capabilities need to be addressed without much delay

Although SnapLogic has an ambitious product roadmap for API management as it pertains to iPaaS use cases, it still has significant ground to cover to successfully compete with some of its iPaaS competitors providing holistic rapid API creation/composition and end-to-end API management capabilities. Areas for improvement include support for GraphQL and gRPC standards, reuse of existing API definitions via Swagger representation import, better support for API deprecation and retirement processes, and support for the Node.js framework. We believe these gaps exist because this is new capability area for SnapLogic, where the product roadmap is driven by the most important requirements for its existing customer base. We understand that SnapLogic is not focusing on developing a best-of-breed, standalone cloud-based API platform. However, in the long run, it is critical to fill these gaps if SnapLogic wants to improve and retain its competitive positioning because application and data integration disciplines are converging anyway.

TIBCO (Ovum recommendation: Leader)

Figure 12: TIBCO radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Strong credentials, a robust platform, and well thought-out strategy have delivered a strong competitive positioning

TIBCO has long enjoyed strong credentials as an integration vendor and has a well-established footprint in the large enterprise segment. TIBCO Cloud Integration (TCI) has gradually evolved as a comprehensive iPaaS product for key hybrid integration use cases. TIBCO achieved consistently high scores across the various criteria groups under the "technology" and "execution and market impact" assessment dimensions. TIBCO Cloud Integration is a functionally rich platform, while the TIBCO

Cloud Integration Connect capability is for less skilled, non-technical users. The TIBCO Cloud Integration Develop and Integrate capabilities are aimed at developers and integration practitioners. The platform supports REST APIs, GraphQL, and event-driven integration, and when used as an API platform deployed on premises, it uses a cloud-native, container-based architecture. On the B2B/EDI integration side, integration with TIBCO BusinessConnect Trading Community Management enables rapid trading partner onboarding, while TIBCO Foresight BusinessConnect Insight supports B2B transaction monitoring. TIBCO has developed a compelling value proposition aimed at different user personas and across disparate deployment models, and has undertaken significant investment to drive an improved UX. As a result of a well thought-out business strategy and good execution in terms of product innovation and delivery, TIBCO has maintained a leading position in this market. This is in line with its competitive position in the pre-iPaaS middleware market.

Disciplined and focused execution is the hallmark of TIBCO's strategy

While TIBCO does not invest as much in marketing as do some of its nearest competitors, over the past four years it has still managed to transition from an on-premises heavy middleware vendor to a leading vendor providing PaaS for hybrid integration. Functioning under the ownership of Vista Equity Partners, TIBCO has demonstrated disciplined and focused execution when it comes to filling gaps in its existing middleware portfolio (for example, overcoming the failure of TIBCO Cloud Bus, TIBCO's very first iPaaS offering) and driving innovation to emerge as a leading vendor in this market. TIBCO's revenue from PaaS for hybrid integration is lower than some of its nearest competitors, but we expect this gap to shrink because TIBCO is capable of achieving above-market average growth in the near future. At its core, TIBCO remains an engineering company delivering innovation to successfully compete with vendors already in this market.

Weaknesses

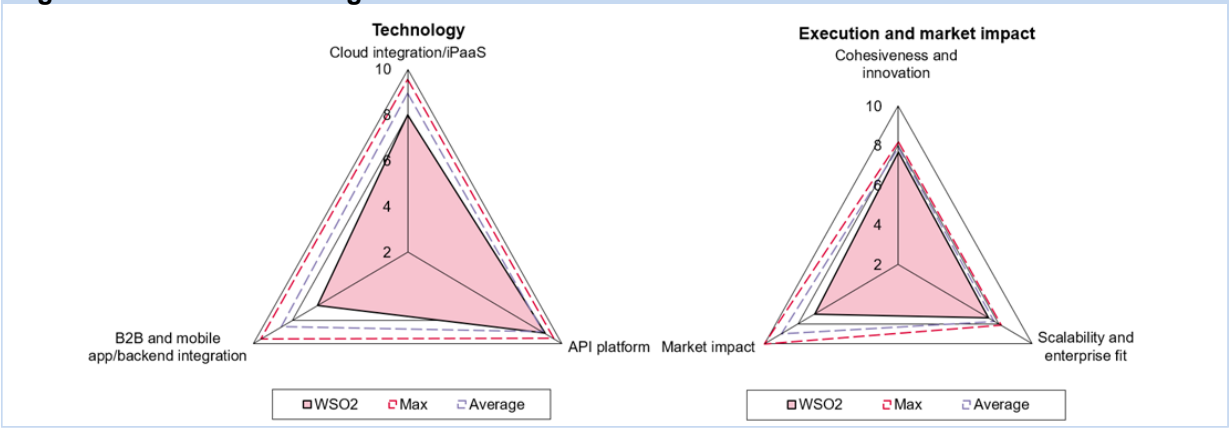
Scope for improvement in ML-based automation, PaaS-style product for B2B/EDI integration required for exploiting market opportunity

TIBCO Cloud Integration provides ML-enabled capabilities, such as smart mapping, automated discovery of connection metadata, a visual model of impact analysis, the ability to fix and address issues driven by changes in configuration, and heuristics-based mapping of data elements and event payloads. There are significant gaps in this set of capabilities when it comes to exploiting ML for automating different stages of integration projects, ranging from design and development to deployment and maintenance. Some of its nearest competitors are ahead in terms of ML-based automation capabilities in production environments. However, TIBCO is working on providing recommendation services at various stages of the integration lifecycle.

TIBCO would benefit from a lightweight, PaaS-style product aimed at B2B/EDI integration use cases, and should provide a simplified UX along the lines of TIBCO Cloud Integration. This is more about a PaaS product delivering B2B/EDI integration capabilities and not an extensive set of features and capabilities as provided by traditional, dedicated B2B/EDI integration platforms hosted on the cloud. This is a low-hanging market opportunity, because many enterprises are struggling with legacy EDI platforms that are a burden and expensive to maintain.

WSO2 (Ovum recommendation: Challenger)

Figure 13: WSO2 radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Open source integration cloud with significant SaaS integration and API lifecyle management capabilities

For developers and integration practitioners with the skills to exploit open source middleware, WSO2 provides substantial capabilities for SaaS integration, API-led integration, and API lifecycle management. WSO2 API Cloud is a hosted version of the open source WSO2 API Manager, and is a functionally rich offering. WSO2 API Cloud offers a developer portal, a scalable API gateway, and a powerful transformation engine with built-in security and throttling policies, reporting, and alerts. WSO2 achieved a high score for the “API platform” criteria group under the technology assessment dimension.

WSO2 API lifecycle management and integration platforms are centrally managed through a common UI that supports various concerns, such as user and tenant management. WSO2 offers a drag-and-drop graphical development environment, a graphical data and type mapper, and graphical flow debugging to simplify the development of integrations. WSO2 Integration Cloud offers good feature-price performance. API back-end services hosted on WSO2 Integration Cloud can be exposed to the WSO2 API Cloud. In March 2017, WSO2 also introduced “Ballerina”, a programming language with both textual and graphical syntaxes to enable users to develop integration flows by describing them as sequence diagrams. Ballerina forms the basis for WSO2’s new code-driven integration approach.

Weaknesses

Does not cater to B2B/EDI integration requirements

WSO2 is the only vendor in this ODM that does not provide a minimal set of capabilities for B2B/EDI integration use cases. While the cloud platforms for hybrid integration market is tilted toward iPaaS and API lifecycle management capabilities, several vendors have gradually expanded to provide support for less complex B2B/EDI integration use cases. The WSO2 Integration Cloud does not provide a tailor-made UX and self-service integration capabilities for less skilled, non-technical users. This is an area in the iPaaS market in which almost all other vendors have invested to better support

less skilled, non-technical users. WSO2 is, however, planning to offer low-code, graphical integration based on Ballerina integrator runtime to enable ad hoc integrators to develop integrations.

WSO2 does not offer ML-based automation across different stages of integration projects, ranging from design and development to deployment and maintenance. This is largely due to its preference to focus on capabilities that are critical for developers and integration practitioners. Other areas for improvement include support for different IaaS clouds, the availability of iPaaS via a regional data center, pre-built connectors for blockchain integration, integration with RPA tools, and centralized management via a web-based console (or other suitable means) for creating, deploying, monitoring, and managing integrations.

Significant scope for improvement in product marketing

Compared to some of its competitors, WSO2 engages in relatively few marketing activities, which hinders its improvement in terms of its brand recognition and competitive market positioning, particularly in regions where it does not have a significant direct presence. Because it mainly targets enterprise/integration architects and hands-on technologists, WSO2's product marketing activities have a technology-centric flavor. However, it would benefit from including a business-centric approaches to sales and marketing to target a wider range of users and decision-makers, such as business leaders funding a LOB-led digital business initiative involving hybrid integration.

Appendix

Methodology

An invitation followed by the ODM evaluation criteria spreadsheet comprising questions across two evaluation dimensions were sent to all vendors meeting the inclusion criteria, with nine vendors opting to participate. Ovum had thorough briefings with the final nine vendors to discuss and validate their responses to the ODM questionnaire and understand their latest product developments, strategies, and roadmaps.

This ODM includes observations and input from Ovum's conversations (including those conducted based on customer references) with IT leaders, enterprise architects, digital transformation initiative leaders, and enterprise developers and integration practitioners using cloud platforms for hybrid integration.

Technology assessment

Ovum identified the features and capabilities that would differentiate the leading cloud platforms for hybrid integration vendors. The criteria groups and associated percentage weightings are as follows.

- Cloud integration/iPaaS (weighting assigned = 40%)
- API platform (weighting assigned = 45%)
- B2B and mobile application/backend integration (weighting assigned = 15%)

Execution and market impact assessment

For this dimension, Ovum assessed the capabilities of a cloud platform for hybrid integration and the associated vendor across the following key areas:

- Cohesiveness and innovation (weighting assigned =40%)
- Scalability and enterprise fit (weighting assigned =45%)
- Market impact (weighting assigned =15%)

Author

Saurabh Sharma, Principal Analyst, Infrastructure Solutions

saurabh.sharma@ovum.com

Ovum Consulting

We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum's consulting team may be able to help you. For more information about Ovum's consulting capabilities, please contact us directly at consulting@ovum.com.

Copyright notice and disclaimer

CONTACT US

ovum.informa.com
askananalyst@ovum.com

INTERNATIONAL OFFICES

Beijing
Boston
Chicago
Dubai
Hong Kong
Hyderabad
Johannesburg
London
Melbourne
New York
Paris
San Francisco
Sao Paulo
Shanghai
Singapore
Sydney
Tokyo