Enterprises need systematic application integration functionality supporting robust messaging, multiple B2B protocols and cloud APIs. We examine vendors with products providing features addressing the needs of systematic application-to-application, B2B and cloud-based application integration.

**Market Definition/Description**

This document was revised on 25 October 2013. The document you are viewing is the corrected version. For more information, see the [ Corrections page on gartner.com](http://www.gartner.com/technology/reprints.do?id=1-1GH73NO&ct=130627&st=sb&mkt_id=3RkMMJ1).

Application integration is defined as giving applications that were designed independently the ability to work together. In 2008, Gartner republished a seminal paper identifying three integration patterns: data consistency, multistep process and composite application integration (see "Understanding the Three Patterns of Application Integration").

Data consistency integration is about making data across all applications consistent. For example, if a customer changes a billing address in a CRM application, that changed data is pushed out to other applications (such as accounting, billing and ERP) so that those applications can update their databases with the new data.

Multistep process integration entails orchestrating the execution of a sequence of business process activities, regardless of whether these activities are performed by software (applications or services), humans, or intelligent devices. Comprehensive support for multistep process integration entails supporting multiple styles of business integration, including system to system, collaborative, document-centric and administrative.

Composite application integration creates what appears to be a single application, purpose-built from the ground up to address user requirements. But if examining the deployment of the application, you will find components, both business logic and data, that are a part of existing production applications.

Initially, these integration patterns were applied for internal, application-to-application (A2A) integration and for integrating an organization's applications with those of its trading partners — that is, B2B integration. Today, the patterns are applied to a broader array of application integration projects:

- Synchronizing data in software as a service (SaaS) applications with on-premises applications (for example, synchronizing customer data in a cloud-based CRM application with customer information in an on-premises ERP system)
- Extending data in on-premises applications with data obtained from operational technologies to provide better and timelier data for operational business intelligence
- Supporting the incorporation of cloud services into new compositions — that is, support for cloud services integration
- Creating new compositions using mobile apps and on-premises back-end services in support of bring-your-own-device initiatives that increase employee productivity, regardless of the time of day or the employee's location
- Supporting the deployment of multienterprise processes that bring new efficiencies and cost savings upstream in supply chain management, and downstream to warehouse management and third-party logistics activities

There is a diverse set of providers with offerings that support application integration. Consolidation will occur; witness the three acquisitions of API management providers — Vordel (by Axway), Mashery (by Intel) and Layer 7 (by CA Technologies) — the last two occurring during the week of 21 April 2013.

Many users are looking to support their integration projects with an integrated suite provided by one vendor, thus eliminating the burden to act as a system integrator for application infrastructure. To address this, even market-leading vendors have more work to do to complete the modernization and consolidation of the technologies they offer to support integration projects.

In an economic environment that continues to drive organizations to implement extensive cost-cutting measures, enterprises may be attracted to open-source software (OSS)-based application infrastructure.
products, as well as cloud-based integration services. To combat this potential erosion of their customer base, vendors in the application integration market need to make further and ongoing investments in their product and service offerings, and must pay particular attention to their pricing and go-to-market strategies.

In addition to this Magic Quadrant for On-Premises Application Integration Suites, Gartner also offers a Magic Quadrant for On-Premises Application Platforms, which evaluates vendors offering technology that considers the modeling and design of service-oriented architecture (SOA) applications; the development, deployment and monitoring of service implementations; and the implementation of user-facing logic (which is often multichannel). Features supporting the orchestration of new and pre-existing services are key requirements (including some degree of integration and SOA governance). For more details, see "Magic Quadrant for Application Infrastructure for On-Premises Application Platforms."

**Magic Quadrant**

**Figure 1. Magic Quadrant for On-Premises Application Integration Suites**

As an application infrastructure vendor, Adeptia is not as widely known as the Leaders in this Magic Quadrant. However, its original product was brought to market in 2003. That offering, founded on an enterprise service bus (ESB), managed integration metadata using a repository and addressed Web-based design, data mapping, process design and execution (orchestration). It also provided mechanisms for initiating process execution, such as event triggers and a scheduler, all within a single package.

Adeptia has evolved its platform organically, maintaining a single-package concept in its current product, Enterprise Business Integration Management Suite (EBIMS) 6.0 (released in February 2013). Using a single repository with support for collaboration, EBIMS integrates feature sets for multiple integration project types, including A2A and SOA, B2B, business process management (BPM), and data management and integration into a package requiring only one installation. The feature sets are designed to support all integration patterns (data consistency, multistep process and composite application integration) found in the aforementioned project types, and are enabled via keys as the necessary licenses are procured.

The vendor offers these features in multiple consumption models, including commercial software licenses, hosted services and cloud-hosted integration services. To complement its base feature set, skills, expertise, technologies, services and the vendor’s underlying business proposition. 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 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.

2013 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. or its affiliates. This publication may not be reproduced or distributed in any form without Gartner’s prior written permission. If you are authorized to access this publication, your use of it is subject to the Usage Guidelines for Gartner Services posted on gartner.com.

The information contained in this publication has been obtained from sources believed to be reliable. Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information and shall have no liability for errors, omissions or inadequacies in such information. This publication consists of the opinions of Gartner’s research organization and should not be construed or used as statements of fact. The opinions expressed herein are subject to change without notice. Although Gartner research may include a discussion of related legal issues, Gartner does not provide legal advice or services and its research should not be construed or used as such. Gartner is a public company, and its shareholders may include firms and funds that have financial interests in entities covered in Gartner research. Gartner’s Board of Directors may include senior managers of these firms or funds. Gartner research is produced independently by its research organization without input or influence from these firms, funds or their managers. For further information on the independence and integrity of Gartner research, see “Guiding Principles on Independence and Objectivity.”
Adeptia offers multiple packaged integrating processes that range from the integration of SaaS applications to on-premises applications (for example, salesforce.com and NetSuite) to solutions targeted for the insurance and automotive vertical industries.

Strengths

- Adeptia provides a comprehensive, integrated (with a common development toolset, management environment, metadata services and runtime platform) and feature-rich application infrastructure offering that also provides leading technologies to support systematic application integration, SOA infrastructure requirements (such as those incorporated into EBIMS) and BPM technology.
- Adeptia employs dynamic class loading, which enables the updating of EBIMS without having to bring it down. To date, Adeptia has only partially addressed OSGi in EBIMS; full compliance is planned for the 6.1 release, scheduled for September 2013.
- The ESB suite market is at the stage where products have been adopted by more than 50% of the technology’s target audience. To gain traction, Adeptia effectively uses price as a weapon, making it attractive to the remaining target audience (increasingly conservative) and small or midsize businesses (SMBs).
- During the past year, Adeptia has experienced steady growth. While this is admittedly easier for enterprises with a small installed base, the growth occurred during a period in which leading vendors grew less than 5%.

Cautions

- Adeptia’s greatest challenge is in gaining visibility in a market where the incumbent Leaders have huge sales and marketing budgets.
- A second challenge, nearly equal to that of the first, is that Adeptia currently lacks functionality to address some upcoming types of integration projects, such as those generated by bring-your-own-device initiatives. Closely related is Adeptia’s lack of plans to support integration involving operational technology, such as programmable logic controllers, RFID sensors and smart meters. Adeptia plans to release its initial set of mobile integration features in EBIMS 6.1, scheduled for release in September 2013.
- Currently, EBIMS lacks the sophisticated clustering required to support interfaces that must process high volumes of interactions. While this may not be important to attract SMBs, large vendors in emerging markets (for example, Southeast Asia and the Middle East) will require the performance for which sophisticated clustering is used. Plans for the EBIMS 6.1 release include support for addition types of clustering, such as weighted round robin, and the ability to specify at design time the subnode or subcluster on which an integration flow will be processed.

Aurea

Aurea is a new software vendor funded and formed by Trilogy Holdings in December 2012. Aurea’s principle software assets are the products that previously made up the Progress Software middleware portfolio. Aurea's middleware platform evaluated for this Magic Quadrant is the 2013 version of the following products: Sonic ESB, SonicMQ (enterprise messaging), Actional (SOA management), Savvion (BPM) and DataXtend SI (common model-based data integration services).

Each of these products has an established footprint in the marketplace, and Aurea intends to extend the integration between them; it has offered new features, consumption models and services associated with integration and process management. The feature enhancements delivered this year include new tooling and ease of configuration for Sonic, increased automated detection with Actional, and extended monitoring and discovery capabilities in Savvion BPM. For this Magic Quadrant analysis, the timing of those new features and their release overlapped with the analysis period, so that not all the changes have had time to be validated in the marketplace and included in this analysis. Aurea's position may change as customers utilize the new products and services that the vendor has brought out in recent months.

There has been uncertainty around this product portfolio since Progress announced its intention to sell these businesses in April 2012. Much of that directional uncertainty has been removed with the founding of Aurea. The Aurea team has extended the road map of features and functions, and has discussed new deployment options, packaging and features for the portfolio of products. Some of these capabilities have been delivered in Aurea’s 2013 release in May. Aurea has chosen to place virtually all its focus on the existing customer base, because this group had been underserved when these products were under former ownership. To emphasize this, the vendor has chosen to use customer value measures as the basis for its ongoing customer relationships. In the future, Aurea intends to expand its marketing and sales reach to go after new customers.

Strengths

- Aurea offers a broad portfolio with leading capabilities in BPM technology, and an innovative approach to monitoring and SOA policy enforcement.
- Aurea provides integrated process visibility across the middleware stack, including discovery of activities within packaged and custom systems.
- The current focus on the existing customer base means that Aurea will not actively pursue new logo business in the short term. While this may mean a period of muted responsiveness to new opportunities, this will benefit its current customers, who have not been getting value from their relationships with the former owner of the products.
Cautions
- Aurea will be able to leverage its newfound financial stability after a lengthy period of uncertainty, and will accelerate the pace of new software delivery.
- The uneven maturity and customer acceptance of products needed as part of a complete integration solution may remain a competitive disadvantage as Aurea introduces vertically focused solutions.
- Marketing and sales are limited by poor brand visibility, limited geographic distribution, and limited recent investment. Aurea’s current “customer first” strategy means slower net new customer growth, which in turn will reduce market share and brand visibility.
- Aurea faces a challenge to reestablish momentum after a period of underinvestment and uncertainty under the products’ former owners.

Return to Top

Axway

Axway provides products and services that focus on helping customers connect, manage and optimize data flows across the enterprise, B2B communities, cloud and mobile devices. The Axway S Suite and Axway’s solutions based on that technology address B2B, integration and managed file transfers (MFTs). The vendor’s acquisition of Vordel moves it into the SOA governance/API management space, which provides timely support for organizations extending their approach for B2B interactions to include exposing services externally. Additionally, the Vordel functionality is being used to establish solutions that govern the flow of data within and beyond the edge of the enterprise.

Axway’s technology has been assembled through internal development and several successful acquisitions. Primary products for systematic application integration projects include: Axway B2Bi V 2.0, Axway API Server V 7.2 (released in March 2013), Axway ProcessManager V 2.3.1 (released in March 2012), Axway Secure Transport 5.2 (released in November 2012), Axway Transfer CFT V 3.0.1 (released in May 2012), Axway Passport V 4.6.0 (released in March 2013), Axway Sentinel V 3.6.0 (released in May 2012) and Axway Community Management (released in March 2012). These products have broad adoption in vertical industries such as automotive, pharmaceutical, manufacturing, transport, logistics, the public sector, financial services and healthcare.

Historically, Axway’s offerings have been most frequently used to support interactions through the management and integration of files. However, its offerings also can be (and were) used to support a spectrum of interaction types, including A2A, human-to-human, human-to-system, system-to-system, B2B integration and cloud services integration.

Strengths
- Axway has strong B2B gateway and MFT capabilities, which are available as both on-premises software and platform-as-a-service offerings. These have been extended by the acquisition of Vordel to provide API management and governance of the flow of data across enterprise, cloud and mobile deployments.
- The vendor offers mature technology for core file-based integration projects, a good range of offerings that support process implementation and business activity monitoring (BAM), and a well-established customer base worldwide (over 11,000 organizations in more than 100 countries).
- Axway is well-positioned to help organizations extend the types of integration that they support with external entities to include interactions based on Web services exposed via APIs.

Cautions
- The vendor’s products continue to be threatened by competing megavendors, proliferating integration platform as a service (iPaaS) offerings and smaller specialists (such as Extol International and Adeptia) pursuing point B2B use cases at a lower price point.
- While the acquisition of Vordel brings some ESB suite functionality, Axway does not position itself as an ESB provider. This puts it at a disadvantage when organizations are seeking a single infrastructure to support A2A, B2B and cloud-to-on-premises integration, as well as the deployment of SOA applications.
- There are limited third-party resources available outside Axway’s historical territories (France and the U.S.) and, although companies are familiar with Tumbleweed Communications and Cyclone Commerce (which Axway acquired), market awareness of the Axway brand outside these territories is limited.

Return to Top

Fiorano

Founded in 1995, Fiorano was one of the first vendors to offer an ESB product. Its application integration products include Fiorano SOA Platform 9.5.1 (released in January 2013), FioranoMQ 9.5.1 (released in January 2013), Fiorano BPM 9.5.1 (released in January 2013), Fiorano B2B Server (to ship in July 2013) and Fiorano Adapters.

Fiorano’s offering is architected to be deployed as a set of peer servers that are monitored and managed by a single Enterprise Server. Such an architecture allows services to communicate directly without going through a central hub. The result is an efficient, distributed bus architecture. Users of Fiorano technology for application and system integration projects have generally experienced the reliability and performance expected by its customers.
Strengths
- One of the earliest ESB vendors, Fiorano offers a unique and highly productive development process — what you see is what you get. That is, what is graphically specified during design time is exactly what is executed.
- The vendor has a proven, scalable and reliable message-based integration platform that can be used on-premises or as a cloud-based service (Fiorano Cloud Platform). As a cloud-based service, Fiorano Cloud Platform enables cloud services integration.
- Fiorano offers compatibility with diverse OSs and application servers. It requires only the availability of Java Runtime Environment (JRE) 1.6 or later.
- Fiorano can address a broad range of use cases, including integrating applications (simple to high-end) and sophisticated SOA (including event-driven architecture [EDA]), the integration of on-premises and cloud-based applications or services, and the integration of operational technologies (system integration).

Cautions
- The vendor has low market visibility and its marketing sometimes shifts the usage scenarios on which it focuses. This can confuse potential customers, especially those seeking basic application integration technology.
- Fiorano is a small vendor, with limited sales and support staff for the SOA and application integration market. This is likely to provide challenges in attracting smaller, risk-averse technology adopters.
- The product portfolio lacks offerings that support SOA governance and API management.
- Fiorano has limited functionality for supporting B2B interactions; however, a more comprehensive feature set is due in July 2013.

Fujitsu
Fujitsu is a large, comprehensive vendor offering application infrastructure middleware — the Interstage product family — as well as hardware, business applications (vertical-packaged and custom-developed applications) and various services (system integration, outsourcing, cloud). Fujitsu's Interstage product family has been a proven application platform for large, business-critical applications in large enterprises in a broad range of vertical industry segments.

The evaluation of Fujitsu's position on this Magic Quadrant is based on the functionality provided by the Interstage family of products. This includes Interstage Application Server V11 (providing a Java Platform, Enterprise Edition [Java-EE]-based back-end container) as well as Interstage Service Integrator V9, Interstage Business Process Manager V11 and Interstage Business Operations Platform V12 (addressing SOA requirements). The evaluation also includes Interstage Information Integrator V11 (providing data transfer over mobile and long-distance networks, both of which often offer narrow bandwidth and low network quality) and Interstage Mobile Application Server (for communicating with various server-side APIs to provide services such as authentication, asynchronous communications and push-based notification).

Strengths
- The Fujitsu Interstage application integration product family generates a substantial revenue stream, one that positions Fujitsu as one of the top 10 application infrastructure middleware vendors in the market, according to Gartner's 2012 market share data. Fujitsu Interstage application infrastructure products have been deployed by several thousand enterprises.
- Fujitsu provides a comprehensive, integrated and proven set of application infrastructure offerings, as well as robust and upward-compatible application integration technologies, such as Interstage Service Integrator and Interstage Business Operation Platform (repackaged from Cordys) for more opportunistic integration projects. Interstage Service Integrator supports all three kinds of integration styles and provides Business Process Execution Language (BPEL)-based orchestration and rich mediation features with reliable messaging, along with a graphical user interface (GUI)-based integration modeling and simulation environment. Interstage Service Integrator enables separate maintenance for each business process or application, without disrupting the operation of any other application.
- Fujitsu recently enhanced Interstage Information Integrator, Fujitsu's data integration tool, which enables high-speed data transfer and high-performance data transformation (patent pending) with GUI-based data flow processing and mapping definition.

Cautions
- Fujitsu has not been successful in effectively conveying its capabilities to the broad application integration market. The vast majority of application integration product evaluation efforts around the world proceed without significant awareness of Fujitsu's presence in this market.
- Fujitsu's product portfolio does not include high-performance messaging technology and API management capabilities.
- Fujitsu Interstage business revenue mostly comes from Japanese enterprises inside and outside Japan, and heavily relies on the vendor's system integration business (ESP) and hardware business. Fujitsu must improve its ability to sell to non-Japanese enterprises if it wishes to grow market share outside of Japan.

Return to Top
IBM

IBM has been a player in the application integration middleware market since the early 1990s, when it introduced IBM MQSeries (now WebSphere MQ) message-oriented middleware (MOM). Since then, the vendor has been expanding its offerings in this market, through acquisitions (for example, Cast Iron Systems and Sterling Commerce) and by internal development, including Java-based technology such as WebSphere Application Server, IBM Integration Bus (formerly WebSphere Message Broker), WebSphere Registry and Repository, and several other products — some through internal development and some via acquisitions.

During 2012, IBM expanded its product line with the objective of supporting an increasing volume of transactions taking place on mobile devices and in the cloud, and providing deeper insights with offerings that can be assembled into a platform for intelligent business operations.

The primary offerings considered in assessing IBM's position in this Magic Quadrant include WebSphere Application Server v.8.5 (released in June 2012); WebSphere Registry and Repository v.8.0 (released in June 2012); WebSphere DataPower Service Gateway XG45, X152, XB62, hardware and virtual editions 5.0.0.5 (released in February 2013); IBM Integration Bus v.9.0 (released in 2Q13); WebSphere MQ v.7.5 (released in 3Q12); IBM Workload Deployer v.3.1 (released in December 2011); WebSphere Cast Iron Cloud Integration (cloud services, virtual appliance and hardware appliance) v.6.3 (released in December 2012); WebSphere Transformation Extender v.8.4 (released in December 2011); Sterling Connect:Direct v.5.1.0 (released in July 2011); Sterling B2B Integrator v.5.2.4 (released in May 2012); IBM Rational Asset Manager v.7.5.1.1 (released in March 2012); and IBM Business Monitor v.8.0.1 (released in December 2012).

Strengths

- IBM has brand recognition, global reach and market share in key application infrastructure middleware segments. It also has mind share, and a large and loyal installed base of hardware and software products leveraged for IBM sales to support application integration projects.
- The vendor has a comprehensive product line that addresses application integration requirements, including market-leading offerings such as WebSphere MQ, IBM Integration Bus, WebSphere DataPower appliances, Sterling B2B Integrator and Connect:Direct, WebSphere Cast Iron, and fit-for-purpose offerings addressing specific requirements (such as cloud integration) and vertical B2B solutions (such as Sterling Order Management and Sterling Configure, Price, Quote). These offerings are sustained through massive partner programs and are complemented by a range of consulting and professional services options. Over the years, IBM has accumulated significant deployment successes for large and business-critical application integration projects in multiple vertical sectors and in virtually all geographical areas, especially in the IBM mainframe installed base.
- There is a wealth of marketing initiatives and vertical and horizontal solutions (for example, Smarter Cities, Smarter Commerce, Smarter Oil and Gas, and Smarter Banking) containing process templates and integration frameworks that are driving adoption of IBM's application infrastructure products within a variety of use cases, including application integration projects.
- At the IBM Impact annual user conference, the vendor left no doubt that an emphasis will be placed on the offerings provided for the integration of operational technology in general, and specifically on bring-your-own-device initiatives that require support of mobile app development, mobile app deployment and management, and the integration of mobile apps with on-premises-based business logic and data.

Cautions

- The implementation of large-scale application integration projects may require the acquisition and deployment of many IBM products (13 products were considered during the assessment of IBM for this Magic Quadrant). The total cost of the set necessary for a client's projects can be very expensive, and may create the need for a significant amount of professional services to get multiple products up and running, configured, and working together to address the user organization's requirements.
- The pace of IBM's acquisitions in the application infrastructure space continuously challenges the vendor with product rationalization and positioning issues; this could expose users to product discontinuity or migration problems.
- Despite plans to rationalize and simplify the product portfolio (for example, in the ESB space), the fine-grained differences, functional overlaps and product integration challenges among products — such as choosing from among IBM Integration Bus, WebSphere Cast Iron and the WebSphere DataPower Service Gateway X152/XB62 appliances to address integration requirements — make it difficult for potential users to determine the best fit for their requirements.

InterSystems

InterSystems is a privately owned vendor of application infrastructure and business solutions, and a leader in the healthcare application integration market, where it demonstrates market-leading vision and execution. Its application and data integration capabilities are provided by InterSystems Ensemble, its collection of prebuilt integration adapters and its adapter development framework. InterSystems Ensemble is an integrated application development, deployment, composition and integration platform built on the vendor's Cache object and relational database. Ensemble is also available as a hosted service on Amazon Web Services (AWS). InterSystems HealthShare builds on Ensemble, and provides...
specialized application integration capabilities for the healthcare industry. The privately held company claims over 1,500 customers.

Strengths

- InterSystems has an advanced, well-integrated technology suite, including a dual-mode (object-oriented and relational) database (Cache), internal support for event processing in the Ensemble platform, a large collection of application and protocol adapters (especially rich for the healthcare industry), multilayer business process orchestration tools, increasingly sophisticated business analytics, and other platform functionality.

- A leading presence and name recognition in the healthcare industry as an integration technology provider (Ensemble), as well as advanced support of healthcare industry integration standards and protocols, allows the vendor to effectively compete in this market against the software industry megavendors, such as IBM, Oracle and Microsoft.

- A profitable private business with no debt, a growing worldwide presence and a large number of partners establish InterSystems as a formidable presence in the healthcare industry. Its offerings for electronic health record exchange — InterSystems HealthShare and InterSystems TrakCare — maintain the vendor’s vertical industry leadership as the worldwide healthcare industry undergoes continuous strategic changes.

Cautions

- Despite a multiyear effort, InterSystems remains largely unknown as an application integration platform provider outside the healthcare market. This, combined with a minimal presence in and influence on industry trends, consortia and standards initiatives (outside healthcare), has limited the vendor to being a Niche Player in the overall application infrastructure market.

- Minimal support for specialized B2B integration scenarios (such as trading partner management) has forced customers to select alternative vendors and to take on the consequent additional cost of system integration.

- There are no publicly committed plans to respond to the growing demands for mobile and social computing or other new integration industry trends (although a recent and continuing investment in big data business analytics is a notable exception).

### Microsoft

Microsoft's primary integration offerings include BizTalk 2010 (released in August 2010) for on-premises integration, and BizTalk Services and Windows Azure Service Bus for integration hosted in the Windows Azure cloud platform.

In "Magic Quadrant for Application Infrastructure for Systematic Application Integration Projects," Gartner documented Microsoft's intentions to provide only two additional releases beyond BizTalk Server 2013. However, the vendor dramatically altered those plans, committing to supporting and enhancing BizTalk Server "as long as organizations use it for integration within the enterprise." The current release is tightly integrated with Visual Studio, Team Foundation Server and the Windows Azure Service Bus offering. BizTalk Server 2013 incorporates Microsoft's BizTalk ESB Toolkit, which previously has been provided as a separate, but free offering. In previous versions of BizTalk Server, integration developers were required to manually integrate BizTalk ESB Toolkit with BizTalk Server to effectively create their own ESB. In addition to its on-premises offerings, BizTalk Server 2013 is also available hosted on Windows Azure.

BizTalk Server enjoys the largest customer base of any commercial or OSS offering. However, Microsoft is investing heavily in cloud integration capabilities and, as this evolves to include capabilities comparable with BizTalk Server, existing customers will need to choose the right time, integration patterns and use cases to adopt BizTalk Services for new interfaces.

Strengths

- BizTalk Server has an installed base of more than 12,000 customers — two-thirds of whom are estimated by Microsoft to be using BizTalk Server 2006 Enterprise Edition or newer versions. This huge installed base has resulted in the broad availability of service providers and consultants with BizTalk Server skills, as well as a thriving market for BizTalk Server add-ins such as those from Art2link and Tallan.

- .NET developers are quickly able to adapt to Microsoft's approach to developing interfaces. This results in a huge pool of relatively inexpensive resources (compared with Java developers) from which organizations can draw to support the development, operations and maintenance of BizTalk Server interfaces.

- Microsoft uses price as a weapon for its SOA infrastructure offerings, including BizTalk Server and BizTalk Server on Windows Azure. The .NET Framework and AppFabric are provided at no additional cost as part of Windows OSes. BizTalk is the least expensive licensed integration offering from a leading vendor.

- Microsoft now plans to provide, to the greatest extent possible, portability of BizTalk Server interfaces to BizTalk Services.

Cautions

- Microsoft is now offering (as of June 2013) a public preview of BizTalk Services. However, it is not meant to be used for production deployments, and there is no guarantee that the version of Azure Service Bus and BizTalk Services used for the on-premises product will look like the technical preview.
MuleSoft

MuleSoft is a venture-capital-funded OSS company that provides software subscriptions and cloud services built on the open source Mule technology. The current unified release of the Mule Enterprise suite of products for on-premises integration is at version 3.4 (released April 2013), and includes Mule ESB, CloudHub, Mule Studio, Mule Anypoint DataMapper, Anypoint Connectors (adapters), Mule Enterprise Management, Mule Business Event Analyzer, Anypoint Enterprise Security, Anypoint Service Registry (one of its modules provides policy enforcement), Mule BPM (orchestration functionality), Mule API Kit and Mule Rules Engine.

The market for application integration technology continues to consolidate and vendors offering products requiring software licenses continue to extend their portfolios, resulting in growing IT costs. In response to this state of affairs, MuleSoft pursues an open-core, commercial open-source model. The core ESB is an open-source-community product. MuleSoft sells license subscriptions to its Mule Enterprise suite of products.

One of the early OSS ESB providers, MuleSoft has evolved its offerings with a focus on supporting integration regardless of whether the applications are hosted on-premises or in the cloud. However, many offerings (for example, adapters) are oriented toward supporting integration involving cloud-based resources.

Strengths

- The vendor has over 2 million downloads, production deployments in 3,200 organizations and 578 supported customers, with a growing number of references using Mule ESB in mission-critical deployments.
- MuleSoft is building a portfolio of packaged integrating processes ("iApps," in the MuleSoft vernacular) for cloud-to-cloud and cloud-to-on-premises integration. The existence of CloudHub and its integration with Mule ESB is foundational to this support.
- Mule Studio, MuleSoft's integrated development environment (IDE), offers graphical and code-level views of integration logic that remain synchronized, regardless of where changes are made.
- Most of the vendors offer classically licensed commercial software products that are expensive. Based on an increasing number of Gartner client inquiries, this opens the door for vendors offering subscriptions to an open-core, commercial open-source product set.

Cautions

- MuleSoft's offerings are in competition with other vendors' open-core, commercial products with feature sets that include MFT capabilities, more comprehensive BPM technology and master data management offerings (for example, provided by Red Hat JBoss and Talend).
- MuleSoft relies on partners, such as SaaS vendors, that lack integration technology to leverage and extend Mule ESB and Mule Data Integrator (the vendor's data transformation feature) to support B2B integration, creating the problem that the integrated set of technology (MuleSoft and the partner offering) has not yet experienced the production testing of a large installed base.
- Because of its pricing, MuleSoft (and other OSS providers) has success selling into organizations that have other ESB technologies deployed. However, it does not promote the capability nor does it actively demonstrate how to integrate its technology with what's already in place.
- A relatively narrow portfolio of offerings does not yet address the integration of operational technology or integrating mobile apps with on-premises resources. It also doesn't address a vision for MuleSoft's offerings' roles within an operational business intelligence platform.

Oracle

Over the past 10 years, Oracle’s application infrastructure middleware offering — Oracle Fusion Middleware (OFM) — has been evolving through internal development and acquisitions, including the key purchase of BEA Systems. Since the acquisition of Sun Microsystems in 2010, Oracle owns the intellectual property of the key Java technology set. Oracle sells OFM as a set of stand-alone products and product suites, but elements of the stack are also leveraged as enablers for its packaged application business, its public cloud initiative (Oracle Cloud) and the Oracle Engineered Systems offerings.

The evaluation of Oracle’s position in this Magic Quadrant is based on the functionality provided by the OFM 11g family of products, which includes Oracle SOA Suite (Oracle Service Bus, Oracle BPEL Process Manager, Oracle Business Rules, Oracle B2B, Oracle Business Activity Monitoring [BAM] and other components) supporting ESB and orchestration requirements; Oracle JDeveloper modeling and development toolset; Oracle Service Registry and Oracle Enterprise Repository for application service...
governance; and Oracle Enterprise Manager for administration, monitoring, management and
governance. Other Oracle products that may be relevant for application integration include Oracle BPM,
as well as Oracle WebLogic Suite (Oracle WebLogic Server, Oracle Coherence, Oracle TopLink, Oracle
Web Tier and other components) providing Java-EE-based back-end container, in-memory data grid,
object-relational mapping and load balancing capabilities.

Strengths
- OFM is a multibillion dollar business that positions Oracle as the second-largest application
  infrastructure middleware vendor in the market, according to Gartner's 2012 market share data.
The technology is supported by a vast network of partners. Thousands of organizations in virtually
every geography and in multiple vertical industries have successfully deployed combinations of
OFM products, in a large number of cases to support large and business-critical application
integration and SOA scenarios. At times, these projects involve Oracle's packaged applications;
however, just as often, OFM is used in non-Oracle-centric application scenarios.
- OFM provides a comprehensive, integrated (common development toolset, management
  environment, metadata services and runtime platform) and feature-rich application infrastructure
  offering, complemented by Oracle's data integration technology. OFM provides leading
technologies to support systematic application integration and SOA infrastructure requirements,
such as those incorporated in the widely adopted Oracle SOA Suite.
- Oracle's vision for the evolution of OFM addresses key application integration technologies (for
  example, Oracle SOA Suite optimization for Oracle Exalogic hardware, enhanced mapping
  [improved XML to non-XML, XML to JSON, and REST to WSDL mapping], MFT, WebSockets and
ebXML Messaging Services v.3, and Applicability Statement 3 [AS3] and Applicability Statement 4
  [AS4] support), emerging requirements (for example, cloud services integration via support for
  popular Oracle [Oracle RightNow and Oracle Taleo] and non-Oracle [salesforce.com and Workday]
  SaaS applications) and delivery models (public cloud and vertically integrated systems).

Cautions
- In 2012, Oracle's revenue in the key ESB suite segment grew 0.8% versus 2011, while the
  segment itself grew 4.6%. This slow growth reflects increased competition from nimble emerging
  open-source and iPaaS players providing mature, low-cost integration and SOA platforms, but also
  reflects Oracle's "business as usual" marketing activity in this market and may also indicate sales
  execution problems in some geographies.
- Some large and loyal OFM users, especially those accustomed to BEA Systems' support, continue
to report dissatisfaction with Oracle's support.
- The vendor hasn't yet fully articulated a vision regarding emerging integration requirements, such
  as cloud services integration, mobile application integration and the Internet of Things. Although
Oracle B2B Integration (part of Oracle SOA Suite) is a legitimate B2B gateway, it misses key
features (supplier scorecard, campaign management and trading partner self-provisioning) that
are typically supported by leading products. Oracle has minimal strategic focus on e-commerce
B2B integration, and its track record in this market is limited, compared with that of B2B
specialists or other application integration middleware providers.

Red Hat
While it offered the JBoss ESB as a component of the JBoss Enterprise SOA Platform, Red Hat was not
previously evaluated for the application integration Magic Quadrant because it positioned JBoss ESB in
support of SOA projects, rather than application integration projects. In June 2012, Red Hat announced
its intent to acquire FuseSource, an OSS ESB provider, from Progress Software. Red Hat's intent is to
continue to support the spectrum of Apache OSS technologies that comprise FuseSource, including
ServiceMix, ActiveMQ, Camel and CXF, as well as Fuse ESB Enterprise (the integration platform) and
Fuse MQ Enterprise (the messaging platform component of Fuse ESB Enterprise).

While the acquisition certainly moves Red Hat and JBoss forward in the application integration space,
it also presents two significant challenges. First, Red Hat/JSBost must smoothly transition the customers
SOA Platform v.6, which includes JBoss Fuse along with additional capabilities in BPEL, SOA governance
and a service component architecture (SCA)-based service framework called SwitchYard. The second
and greater challenge is for the vendor to make a name for itself in the application integration market.
While the FuseSource customer base provides a starting point, JBoss will be challenged to establish the
same acceptance that has been built for its application platform offerings.

Strengths
- JBoss Fuse offers a solid foundation of OSS application integration components (including
  ServiceMix, ActiveMQ, Camel and CXF) which are extended with management and monitoring
  capabilities and an IDE.
- The broad acceptance of the JBoss Enterprise Application Platform across most verticals and
  geographies, as well as its commitment to be fully open source (which has a strong and growing
  appeal in many IT organizations, including government and others) will accelerate the adoption of
  JBoss Fuse.
- There is an additional staff of Red Hat engineers who are prolific contributors to Apache
  communities that create and extend integration offerings (for example, Camel, Karaf, CXF and
  ActiveMQ). This will extend the vendor's former engineering staff with previously described
  Apache projects, enabling it to provide better customer support.
Red Hat has a broad array of complementary offerings, including the JBoss Data Grid, JBoss Portal Platform, JBoss Enterprise Business Rules Management System (BRMS), and JBoss Enterprise Data Services Platform.

Cautions
- JBoss has the challenge of smoothly transitioning Enterprise SOA Platform users to the FuseSource platform, which will improve Red Hat's focus once there is only one ESB that needs support.
- The initial JBoss Fuse offerings are targeted toward technical developers and are more difficult to use than HTML5-based offerings from competing providers.
- The adapters offered by Red Hat are primarily technical in nature (for example, database management systems [DBMSs], message-oriented middleware [MOM] and protocols), although it partners with GT Software and iWay Software for packaged application adapters. This could leave Red Hat in the lurch if a new, popular packaged or SaaS application is released, and GT Software and iWay decide not to create an adapter.

SAP

The SAP integration platform is part of its NetWeaver brand. The platform consists of SAP NetWeaver Process Orchestration (combining the previously separate SAP NetWeaver Process Integration and SAP NetWeaver BPM), SAP NetWeaver Application Server ABAP/Application Server Java, SAP NetWeaver Portal, SAP NetWeaver Gateway, and portions of SAP Solution Manager.

SAP's on-premises integration technology has evolved during the past several releases, and its performance and scalability have improved significantly during that time. However, this market is relatively mature and organizations often own several integration technologies (including SAP's) and make the choice to use one or the other based on the skills of the personnel doing the work. This has led to the current situation in which the vast majority of SAP NetWeaver implementations are used to connect SAP applications. SAP has not created a substantial base outside its application customers, but that is a large target.

While NetWeaver Process Orchestration's capabilities for A2A integration are comparable to those of other leading integration technologies, SAP's current B2B capabilities lag the leaders in that area. SAP's vision for B2B integration assumes a great deal of capability offered as a cloud service, as evidenced by its purchase of Ariba. However, since this Magic Quadrant is for customers seeking on-premises solutions, SAP's investment in Ariba does not contribute significantly to its Completeness of Vision rating in this Magic Quadrant.

Several aspects of SAP's vision also focus on a hybrid cloud strategy, with some integration capabilities on-premises and some in the cloud. For example, cloud versions of SAP's integration platform technologies based on new code lines have been released as SAP Hana Cloud Integration. While SAP's vision of hybrid cloud deployments is an attractive one, most customers are not deploying in this fashion today.

Also, while the cloud and on-premises versions of SAP integration technologies share some capabilities and metadata, having a separate code line for these capabilities creates some longer-term questions about SAP's product road map and possible transition or convergence issues among SAP's integration products. SAP has said that the capabilities introduced into SAP Hana Cloud Integration will be released as enhancements to NetWeaver, where appropriate.

Strengths
- SAP's portfolio of technology is broad, and is used extensively by SAP customers to integrate SAP applications and other systems.
- SAP NetWeaver products offer robust support for on-premises A2A integration and process management, including support for integrating with applications based on SAP Hana.
- A developing portfolio of content and configurations specific to SAP applications enhances the value of the solution when used in conjunction with SAP applications, and begins to differentiate them from other integration platforms offering integration of SAP applications.

Cautions
- While popular with SAP customer and users familiar with SAP technology, SAP's integration middleware has not established a significant footprint outside the SAP application base.
- Despite recent investments, SAP's on-premises B2B integration solutions are seen to be insufficient for many of the vendor's customers with complex supply chain integration challenges. SAP has made a significant investment in integration with B2B partners as a cloud service by purchasing Ariba and its network. A lack of API management features hinders Web API integration.
- SAP's innovative technology is an advantage for the vendor overall, but the juxtaposition of NetWeaver Process Orchestration, SAP Hana Cloud Integration, SAP Gateway and Dell Boomi AtomSphere (embedded in SuccessFactors and Ariba), offer multiple overlapping integration products.
Seeburger

Seeburger, one of the major European integration vendors, has established itself as a strong international player, mainly based on the quality of its technology. Seeburger has provided sustained, reliable servicing of customers worldwide for over 27 years. The vendor's Business Integration Server (BIS) 6.5.1 (released in June 2013) is founded on a service bus, has inbuilt orchestration functionality and contains a high-performance, any-to-any transformation engine that is very capable at transforming XML, but is also especially well-suited to transforming EDI. This also makes it well-suited for supporting A2A, B2B, MFT and cloud-to-on-premises integration projects.

While Seeburger's BIS (available for on-premises deployment and as a managed service) is best-known for its support of B2B integration, it can also support A2A and cloud-to-on-premises integration projects.

Strengths

- Seeburger remains renowned for multienterprise B2B projects because of its technology, which is entirely internally developed and well-integrated.
- BIS has been extended by the addition of MFT technology, which also extends the A2A and B2B interaction styles it supports.
- Seeburger’s customer base continues to expand in several geographies, including Japan and the Asia/Pacific region, China and Eastern Europe, and its financials look healthy.
- The vendor’s cloud strategy, which addresses B2B, MFT and A2A, is well-executed, well on its way to being implemented, and valid for both B2B and A2A.

Cautions

- Seeburger’s exclusive focus on internally developed technology excellence has limited its capability to grow through technology acquisition.
- While BIS contains an ESB, it is relatively new and not widely adopted as a stand-alone offering.
- Seeburger’s future as an independent company continues to be the subject of speculation. Good technologies typically survive acquisitions, but there is a higher-than-average risk of a change in ownership.
- Seeburger faces growing competition from IBM (Sterling B2B Integrator), Axway (Vordel acquisition) and SAP. A significant portion of Seeburger revenue comes from being the B2B partner for SAP applications. In the past, SAP has promoted Seeburger as a partner in the field. While this still happens for SAP customers wanting to deploy a B2B gateway on-premises, SAP is now heavily promoting the combination of technologies obtained from its Crossgate and Ariba acquisitions for its managed service offering.

Software AG

Software AG emerged as a notable application infrastructure middleware vendor through a combination of internal development and acquisitions, with webMethods in 2007, IDS Scheer in 2009, Terracotta in 2011 and my-Channels in 2012 being the most notable. Currently, application infrastructure is the main business for Software AG, generating more than 50% of its product revenue. The application integration and SOA project markets have been strategic for Software AG since its early days as a middleware vendor.

The evaluation of Software AG’s position in this Magic Quadrant is based on the functionality provided by the webMethods Suite 9.0 family of products (announced in October 2012 and released in May 2013). This includes webMethods Integration Server, supporting ESB and orchestration requirements; webMethods CloudStreams for cloud services integration; webMethods Broker and webMethods Nirvana Messaging for MOM; webMethods Active Transfer for MFT; webMethods Business Process Management Suite (BPMS), providing process orchestration capabilities (along with other BPMS features); webMethods Trading Networks for B2B integration; webMethods Adapters; webMethods EntireX and ApplinX for mainframe integration; CentraSite for metadata management and application service governance; webMethods Mediator and webMethods Insight for application service governance; webMethods Designer for integration logic modeling and development; and webMethods Command Central for centralized administration and management. Other Software AG products relevant to application integration and SOA infrastructure include the Aris Platform for enterprise modeling, process performance monitoring and dashboard design; Terracotta BigMemory in-memory data grid technology; and webMethods Business Events for complex-event processing (CEP).

On 13 June 2013, Software AG announced the acquisition of the Apama complex-event processing technology from Progress Software. The acquisition took place while this Magic Quadrant was already in its final stages; therefore, the Apama technology was not taken into account in the Software AG evaluation.

Strengths

- The webMethods Suite provides a large and growing application infrastructure platform with a large installed base of approximately 3,800 clients leveraging the technology in the context of multiple usage scenarios, including numerous large-scale and business-critical application integration and SOA deployments in multiple vertical markets and geographies.
- The webMethods Suite is a comprehensive, advanced and proven application infrastructure product set for A2A (including mainframe), B2B integration and, most recently, cloud services integration projects. It is well-integrated on a coherent, OSGi-based foundation (for example, a common runtime container, unified design and development tool, unified metadata management,
common management platform, and integrated business process/technical modeling through Business Process Model and Notation (BPMN) 2.0), and incorporates leading technologies (universal messaging, event processing platform, in-memory data grid and mobile device support).

Software AG’s vision for the evolution of webMethods Suite addresses key application integration standards (for example, AS4), technologies (for example, universal messaging architecture, social collaboration integration, and integration with in-memory data grid for scale and performance), deployment models (platform as a service) and emerging requirements (for example, cloud services, mobile applications and big data integration; in-memory computing, and the Internet of Things).

Cautions

- In the course of 2012, Software AG experienced a reduction in its overall revenue, due to a decline in its legacy Adabas/Natural mainframe software business and a growth and profitability issue in its consulting business deriving from the IDS Scheer acquisition. The latter culminated with the divestiture of the North American IDS Scheer portion of the consulting operation. Fixing these challenges may distract top management from driving evolution and growth of the core application infrastructure market.

- Although Software AG grew faster than most of its large competitors in the ESB and B2B gateway software segments, the vendor is facing increased competition from nimbler, emerging OSS and iPaaS players providing mature, low-cost integration and SOA platforms.

- Some of the components of the webMethods Suite (for example, webMethods Nirvana Messaging, Terracotta BigMemory and webMethods Business Events) are not yet integrated in the new webMethods Command Central, thus increasing the IT operations cost and complexity for the most advanced configurations.

---

Talend

Talend’s foundational product for application integration is Talend Enterprise ESB v.5.2 (released in November 2012). During 2012, Talend incorporated its integration technology into the Talend Platform for Enterprise Integration, an offering that addresses application and data integration, data quality, and support for BPM. This set of OSS features is complemented by Talend Platform for Big Data, Talend Platform for Data Management and Talend Platform for Master Data Management, which support near-neighbor capabilities. The entire set of Talend Platforms is integrated and the metadata is managed in a single repository.

Talend pursues an open-core, commercial open-source model providing mission-critical features, support and maintenance via subscriptions. The vendor offers BPMS functionality via a partnership with Bonitasoft.

Although a relative newcomer to the ESB suite market, Talend is the first vendor to offer a platform that integrates a suite for application integration with data integration and BPM technologies through a common repository/environment.

Strengths

- Talend Open Studio for ESB is a robust suite founded on the broadly adopted Apache CXF, Camel, Karaf and ActiveMQ open-source offerings, to which its engineers are active contributors.

- Talend uses a graphical approach to implementing Apache Camel Enterprise Integration Patterns, which includes an all-in-one feature for testing the implementation of these enterprise integration patterns.

- Talend’s go-to-market approach of five platform offerings (Big Data, Data Management, Data Services, Enterprise Integration and Master Data Management), with all the platforms integrated via a single repository, is unique.

Cautions

- Talend is a relatively young company, founded in 2005 and dual-headquartered in Los Altos, California, and Suresnes, France. It is methodically expanding into its established markets (that is, the U.S. and EMEA) and is opening up its Asia/Pacific efforts with offices in Tokyo and Beijing. However, its products do not have a worldwide installed base comparable with the leading integration vendors.

- B2B support is limited to the most common B2B file formats (for example, ANSI EDI and Electronic Data Interchange for Administration, Commerce and Transportation [EDIFACT]) and protocols (for example, RosettaNet, HL7, FTP and S/FTP, and SWIFT), and lacks support for widely used industry-specific exchange protocols (for example, PIDX/CIDX and ACORD) and horizontal exchange protocols (for example, OAGIS). However, these can be configured into the product.

- Talend looks to Apache projects and its R&D staff to provide adapters, some of which are also contributed by community members. While Talend provides adapters to SAP, Microsoft CRM and salesforce.com, it only offers a limited set of application integration adapters for widely deployed commercial packaged applications, such as PeopleSoft and Siebel.
WSO2

WSO2 is an open-source platform that contains a broad range of capabilities, and is commonly used as an integration platform by enterprises. This impressively broad portfolio contains components that are intentionally streamlined and somewhat minimalist in terms of its functionality, eliminating infrequently used features and focusing on the needs of enterprise integration and the deployment of newer applications and architectures.

WSO2 has achieved this to a large extent, and its integration capabilities are used by hundreds of organizations, and in some high-scale situations and by some cloud services providers. Integration is an area where WSO2 competes very strongly against other open-source and commercial competitors. The vendor has been expanding, particularly in North America, and has its roots in the U.K. and Sri Lanka, where it maintains offshore development and support.

Its offerings include WSO2 Application Server 5.0.1, WSO2 API Manager 1.3.1, WSO2 Identity Server 4.0.0, WSO2 Business Process Server 2.0.0, WSO2 Business Rules Server 2.0.0, WSO2 Enterprise Service Bus 4.6.0, WSO2 Message Broker 2.0.1, WSO2 Governance Registry 4.5.3, WSO2 Data Services Server 3.0.1, WSO2 Business Activity Monitor 2.2.0, WSO2 Complex Event Processor 2.0.1 and WSO2 Elastic Load Balancer 2.0.1. The integration products are largely based on Apache projects, and all the components of the WSO2 solution are available under an open-source license, which means that a percentage of users are operating without support agreements.
Strengths

- WSO2's broad portfolio of technology, including capabilities to support private cloud and other deployment options, positions them favorably versus other OSS options.
- Substantial proof points for integration, including high-volume and high-scale environments, add credibility for a relatively small company.
- A combination of simplified functions, various deployment options and complete open source makes it easy for customers to consume WSO2 products, even when compared with other open-source middleware.

Cautions

- Simplicity of technology is achieved by eliminating various functions and features, which may be missed in certain circumstances.
- The open-source integration market has the potential for realignment if Red Hat improves its integration capabilities, which would represent a substantial challenge for all open-source integration vendors, including WSO2.
- Local knowledge and skills are very scarce outside of the U.S. and U.K., so organizations wishing to use this technology may have to maintain skills around it in-house.

Vendors Added or Dropped

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

Added

- Adeptia was added to this Magic Quadrant because it qualified on both required functionality and revenue.
- Aurea was added after it was established to take on the application integration products that were previously owned and marketed by Progress Software.
- Red Hat was evaluated for one of the 2012 Magic Quadrants that was conflated to form this one — it was on the 2012 Magic Quadrant for Application Infrastructure for Systematic SOA Infrastructure Projects. The vendor was not, however, on the 2012 Magic Quadrant for Application Infrastructure for Systematic Application Integration Projects.

Dropped

- iWay was not included in this Magic Quadrant because Information Builders has refocused its integration technologies to target the data integration, data quality and master data management markets.
- Magic Software was not included in this Magic Quadrant because Gartner has raised the criteria for revenue from application integration and back-end SOA infrastructure middleware, and the vendor’s relevant revenues were insufficient to qualify this year.

Inclusion and Exclusion Criteria

Vendors that are included in this Magic Quadrant must have sufficient technology and expertise in their portfolio (regardless of packaging) to be sole application infrastructure providers for all types of systematic application integration projects. Following are the key technical characteristics that are essential to such offerings.

Communications

Vendor offerings must implement an interoperability layer that supports interactions among application and system components via a variety of protocols — HTTP/plain old XML (POX), REST, SOAP, Internet Inter-ORB Protocol (IIOP), .NET remoting MOM, file transfer and others. Vendor offerings must also enable a broad array of interaction styles — such as request/reply, conversational, publish and subscribe, and asynchronous messaging. Finally, vendor offerings should provide support for the idempotent delivery of messages — that is, the ability to (1) guarantee the delivery of each message, (2) to deliver each message only once and (3) to deliver messages in the order sent by the source program(s).

Data Transformation

Vendor offerings should support the translation of data from the format, structure and semantics native to the source application to that required by the target applications. Offerings are assessed on the basis...
of support for vertical protocol standards (for example SWIFT, HL7, ACORD and NCPDP) and communications protocol standards (for example, AS1, AS2, AS3, ebMS and RNIF).

Orchestration

Vendors should provide technology that hosts the execution of process logic spanning interactions with multiple back-end services or applications with the aim of implementing composite services or automated system-to-system processes. Typically, these orchestrations enable short-term processes (i.e., processes that complete within seconds or minutes). However, in some cases, these processes may run for hours, days or even weeks. Process state should be maintained for the duration of the logical unit of work (for example, for an entire RosettaNet partner interface process). This technology usually provides only basic support for human-based activities, primarily aimed at exception handling and error recovery.

Application Connectivity

Vendors should provide an array of adapters or wrappers — that is, technology that combines design tools and runtime software to implement programs that act as “glue,” bridging protocol differences and connecting to databases, as well as most popular packaged applications and SaaS offerings.

Development Environment

Each vendor must provide a software application that provides comprehensive facilities to enable integration staff to efficiently design, implement, test and deploy integration interfaces and service interfaces.

B2B Interactions

Vendors should provide connection provisioning capabilities for B2B protocols, such as AS2, EDI and ebXML Messaging Service. Vendors should also support Web services-based connections with external business partners. Support for trading partner management and partner self-provisioning is also expected.

Governance

Governance is the assignment of decision rights to ensure desirable behavior. Vendor support is expected for managing the life cycle of integration solutions during design time and to manage qualities of service at runtime. Expected functionality includes a registry/repository, policy definition and management, and API management.

Security

Vendors should enable implementation of effective security support to enable capabilities such as authentication of endpoints, authorization of service or interface access, message/document encryption/decryption, digital signature processing, message/service invocation logging, and token/certificate management.

Administration and Monitoring

Vendors should provide technology that enables visibility into and effective management of the solutions that are created through the integration of programs and services.

This Magic Quadrant considers only those products that are available for implementation on user-controlled infrastructures. This could be traditional data center infrastructure or private cloud deployments, as well as hosted (and possibly public) infrastructure as a service (IaaS) environments. This Magic Quadrant does not consider platforms that are available only as cloud services offerings.

Vendors that limit themselves to serving a single vertical market may be suitable for organizations in those industries, but are not covered in this Magic Quadrant. Qualifying vendors must have significant revenue from multiple vertical markets.

Each vendor’s entire set of product offerings is considered, without regard to product packaging. All of the above capabilities must be delivered and supported by the vendor being assessed. Some of the technology in the evaluated portfolio might be repackaged from a third party. This is acceptable as long as the user’s primary support experience is with the vendor being assessed. Delegating Level 3 support is acceptable.

There must be evidence of production success (at least 30 paying production customers) by the vendor as a sole provider of technology for this project type.

Vendors with annual product license and maintenance revenue of more than $15 million from application infrastructure deployments may be considered. In the case of vendors pursuing a subscription-based, open-source business model, the threshold for consideration is $10 million in annual product subscription revenue.

Vendors must also realize substantial revenue from at least two of the five global regions: North America; Latin America; Europe; Africa and the Middle East; and the Asia/Pacific region.

This Magic Quadrant will be limited to the 17 vendors that offer the greatest and broadest market penetration and meet all of the functional inclusion criteria noted above.
Evaluation Criteria

Ability to Execute

Gartner analysts evaluate technology providers on the quality and efficacy of the processes, systems, methods and/or procedures that enable IT provider performance to be competitive, efficient and effective, and to positively impact revenue, retention and reputation. Ultimately, technology providers are judged on their ability and success in capitalizing on their vision.

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product/Service</td>
<td>High</td>
</tr>
<tr>
<td>Overall Viability (Business Unit, Financial, Strategy, Organization)</td>
<td>Low</td>
</tr>
<tr>
<td>Sales Execution/Pricing</td>
<td>Standard</td>
</tr>
<tr>
<td>Market Responsiveness and Track Record</td>
<td>High</td>
</tr>
<tr>
<td>Marketing Execution</td>
<td>Standard</td>
</tr>
<tr>
<td>Customer Experience</td>
<td>High</td>
</tr>
<tr>
<td>Operations</td>
<td>Standard</td>
</tr>
</tbody>
</table>

Source: Gartner (June 2013)

Completeness of Vision

Gartner analysts evaluate technology providers on their ability to convincingly articulate logical statements about current and future market direction, innovation, customer needs, and competitive forces, and how well these statements map to the relevant Gartner position. Ultimately, technology providers are rated on their understanding of how market forces can be exploited to create opportunities for the provider.

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Understanding</td>
<td>High</td>
</tr>
<tr>
<td>Marketing Strategy</td>
<td>Standard</td>
</tr>
<tr>
<td>Sales Strategy</td>
<td>Standard</td>
</tr>
<tr>
<td>Offering (Product) Strategy</td>
<td>High</td>
</tr>
<tr>
<td>Business Model</td>
<td>Low</td>
</tr>
<tr>
<td>Vertical/Industry Strategy</td>
<td>Standard</td>
</tr>
<tr>
<td>Innovation</td>
<td>High</td>
</tr>
<tr>
<td>Geographic Strategy</td>
<td>Standard</td>
</tr>
</tbody>
</table>

Source: Gartner (June 2013)

Quadrant Descriptions

Leaders

Leaders in the Magic Quadrant for On-Premises Application Integration Suites are vendors with a proven, comprehensive and integrated set of products that address and are used by their customers for use cases that include A2A, B2B and cloud-to-on-premises integration projects. They have an ample installed base of products to which to cross-sell their integration solutions, and have demonstrated their ability to anticipate technology and market trends over the years by extending their offerings to support the data consistency, multistep process and composite application integration styles that occur in systematic integration projects. They also have a sizable installed base of international clients, many of which demonstrate their satisfaction by periodically upgrading to new product versions.

Leaders in infrastructure that supports systematic application integration provide a comprehensive ESB suite offering as well as the ability to integrate that offering with other relevant technologies (including community management, data integration, SOA and integration governance, and BPM). This is combined with a strong commitment to this market, which is expressed through focused value propositions and go-to-market strategies (for example, by packaging platforms and/or by providing integrated product and service offerings specific for this market). Leaders must provide support for the most relevant industry standards — for example, SOAP-based and RESTful Web services, BPEL, BPMN and OSGi — and they must offer a well-defined product road map addressing most of the emerging requirements, such as cloud/SaaS integration.
Established leadership (achieved through organic growth or via acquisitions) in the adjacent application platform infrastructure market is a common trait among application integration Leaders. This, in part, reflects some commonality in the technology required in these two usage scenarios and, in part, it is a consequence of the logical progression, on the part of the most advanced users, from having adopted a systematic approach to application integration to selecting a shared approach to SOA infrastructure. Consequently, organizations that endorsed one of the leaders’ platforms to support their systematic application integration projects also find it natural and nondisruptive to adopt the same platform (or some extensions and/or variants) to also support their SOA infrastructure requirements.

The offerings of the Leaders are rich and mature. However, in some cases, they're biased toward the vendor's packaged application portfolio. Despite the efforts of most of the Leaders to devise "entry-level" versions of their technologies they are, at times, considered too complex or too expensive for organizations with minimal experience in systematic application integration or for businesses that are budget-constrained or that are looking for a focused, fast-to-deploy and easy-to-use platform.

### Challengers

Challengers are vendors that have demonstrated that their technology can support the implementation of numerous large business integration projects and have built platforms capable of effectively competing against, and often besting, those of the Leaders. However, these vendors are followers, rather than leaders, in providing innovative features, or their innovation is limited to a specific problem space. In some cases, their vision is not manifested through focused marketing messages and value propositions. In other cases, their vision is not manifested through comprehensive geographic coverage. Challengers have the opportunity to become Leaders through greater product innovation, combined with a marketing and sales focus on all aspects of application integration (A2A, B2B and integration of cloud-based applications).

### Visionaries

Visionaries demonstrate innovation from a product and technology perspective. They have significant investments in integration technology, and their prospects for survival and growth depend on their ability to establish a strong presence in the market for application infrastructure for application integration. However, the products of some larger Visionaries have relatively small installed bases, and, in some cases, their production readiness is not yet proven by a full spectrum of mission-critical deployments.

Through diligent and focused execution, it is possible for some Visionaries to have the opportunity to become Leaders. However, for smaller Visionaries, limited sales, marketing, engineering and support resources create enormous obstacles for such ambitions. Many of these vendors are likely to merge or be acquired by larger companies, but some offer excellent and highly innovative products that, at times (often, in particular use-case scenarios), will outperform large vendors' offerings.

Often, products from vendors in the Visionaries quadrant can be used together with point products from other vendors to create a comprehensive middleware infrastructure that has all the features offered by the "one-stop shopping" suites of the larger vendors in the Leaders quadrant.

### Niche Players

A Niche Player often offers good and, in some cases, excellent integration technology. However, sometimes the focus of that Niche Player on a specific vertical market has resulted in products that are less useful in integration problems outside that domain. Alternatively, a vendor may lack focus on this problem space, which, for it, is a marginal business. Other reasons for vendors to be positioned in this quadrant are that they have limited sales, marketing and support resources, or are committed to only one geography or installed base.

Nevertheless, application integration technology from a Niche Player can be an optimal choice for specific classes of users (for example, users in a particular vertical market where the vendor's integration technology is focused, or users in the same geography where the vendor is located). Additionally, Leaders' and Challengers' products are often too complex and expensive for SMBs, or users whose requirements are not overly demanding. Users with less-stringent requirements may find suitable products from Niche Players and Visionaries.

A vendor in this quadrant could emerge as a Visionary through a greater commitment to innovation and focus on this market.

### Context

Most everyone in IT understands the challenges and limitations presented by stand-alone, stovepiped applications. Consequently, virtually every software project that deploys a new application involves application integration tasks.

There is a diverse set of providers with offerings that support application integration. Consolidation will occur (witness the three acquisitions of API management providers that occurred during the week of 21 April 2013). Many users are looking to support their integration projects with an integrated suite
provided by one vendor, thus eliminating the burden to act as a system integrator for application infrastructure. To address this, even market-leading vendors have more work to do to complete the modernization and consolidation of the technologies they offer to support integration projects.

In an economic environment that is driving organizations to implement extensive cost-cutting measures, enterprises may be attracted to OSS-based application infrastructure products as well as cloud-based integration services. To combat this potential erosion of their customer base, vendors in the application integration market need to make further and ongoing investments in their product and service offerings, and they need to pay particular attention to their pricing and go-to-market strategies.

In addition to this Magic Quadrant for application integration vendors, Gartner also offers a Magic Quadrant for application platform infrastructure. That Magic Quadrant addresses vendors offering technology that considers the modeling and design of an SOA application, and the development of service implementations and user-facing logic (which is often multichannel). Features supporting the orchestration of new and pre-existing services is a key requirement (including some degree of integration and SOA governance). See "Magic Quadrant for Application Infrastructure for On-Premises Application Platforms" for more details.

Return to Top

Market Overview

Application integration technology burst into the middleware market in the mid-1990s. At that time, sophisticated integration products were offered exclusively by specialists — vendors that provided application integration technology. Initially termed "message brokers," the products from these vendors focused on providing a graphical approach to specifying the business logic required to transform and intelligently route data among applications to achieve data consistency.

From 1999 to 2001, IBM and Microsoft entered the application integration market, where they have since been joined by Oracle, SAP and Fujitsu. These vendors are often referred to as megavendors. The term is used to characterize large vendors that provide products and services with applicability that extends well beyond application infrastructure.

Gradually, both specialists and megavendors expanded the features provided in conjunction with the message broker, to the point of where they could deliver a suite of products that could address a broad range of application development and integration requirements. During this time, the popularity of SOA applications began to grow, and ESB technology was introduced to mediate interactions between clients and services. The products offered by ESB vendors evolved in the same manner — adding features (in the form of services) that resulted in a comprehensive suite. Due to changing consumer buying practices and the increasing functional overlap that resulted as ESB and integration suite products moved toward one another in terms of features, the markets merged (see "The Integration Suite and ESB Markets Have Merged").

Today, megavendors' offerings have reached feature parity with specialists' offerings. Therefore, although specialists can sometimes outmaneuver megavendors through innovations such as BPM tools, BAM features and CEP capabilities, megavendors are countering by sowing fear, uncertainty and doubt about the viability of smaller vendors, by matching the innovation of specialists through internal development or acquisition, and by expanding sales to include one-stop shopping for a broad set of assets that is complementary to application infrastructure (such as solutions, services, patterns and templates) and that add significant value to organizations involved in SOA, BPM and CEP initiatives.

Meanwhile, as the popularity of application integration rose, so did interest in B2B collaboration. Companies disenchanted with the cost of private, proprietary EDI value-added network (VAN) services began seeking software alternatives that provide community management and secure, message-based transport over TCP/IP networks and the Internet, and, most recently, that expose services that allow trading partners to transact business in a more timely and efficient manner.

Until the past few years, IT users tended to implement integration projects for A2A and B2B projects separately; however, users are increasingly looking for a consolidated integration solution to both problems. Thus, three important trends have driven the consolidation of both internal and external integration project styles onto this version of the application integration Magic Quadrant:

- Application infrastructure vendors have extended their portfolios to include products that support integration with external endpoints.
- Vendors of B2B products are extending their portfolios to include products that support A2A integration.
- Enterprises are consolidating disparate B2B integration and application integration initiatives. This includes the consolidation of technologies, best practices and governance.

Looking forward, the hype around application integration and SOA is moving on to initiatives that have gained popularity and marketing hype, including business process improvement, the creation of multienterprise processes, operational business intelligence, and the creation and deployment of mobile applications that support the needs of an enterprise. However, the technologies assessed in the Magic Quadrant will be foundational for these new endeavors.