Why Read This Report

In our 32-criteria evaluation of providers of integration-platform-as-a-service (iPaaS) for dynamic integration, we identified the eight most significant — Adeptia, Dell Boomi, Flowgear, IBM, Jitterbit, Scribe Software, SnapLogic, and Workato — and researched, analyzed, and scored them. This Forrester Wave shows how each provider measures up and helps enterprise architecture (EA) professionals make the right choice for dynamic integration, connecting systems of engagement (SoEs) to systems of records.

Key Takeaways

Scribe, Workato, Dell Boomi, And IBM Lead The Pack

Forrester's research uncovered a market in which Dell Boomi, Workato, Scribe Software, and IBM lead the pack. Adeptia, Jitterbit, and SnapLogic offer competitive options. Flowgear lags behind.

Enterprise Architects Pros Are Looking For Dynamic Integration

The iPaaS market is growing because more EA professionals see dynamic integration as the best solution to integrate cloud-based systems of engagement, like Marketo or Salesforce, with their cloud or on-premises systems of records. In large part, this market growth is because EA pros increasingly see iPaaS offerings as mature, with fast time-to-value.

Templates And DevOps Are Key Differentiators

EA pros see complete enterprise service bus (ESB) infrastructure as complex. They perceive maintaining coded interfaces as inefficient and not sustainable because interfaces are continuously evolving. Precoded, wizard-driven configuration tools and DevOps support will determine which providers will lead the pack.
The Forrester Wave™: iPaaS For Dynamic Integration, Q3 2016
The Eight Providers That Matter Most And How They Stack Up

by Henry Peyret
with Alex Cullen, Alex Kramer, and Diane Lynch
July 20, 2016

Table Of Contents
2 Cloud And SaaS Bring New Integration Challenges For Enterprises
   The Integration Landscape Consists Of Two Distinct Segments
   A Diverse Range Of Vendors Targets The iPaaS Market
   Key Market Trends
4 iPaaS Evaluation Overview
   Evaluated Vendors And Inclusion Criteria
6 Vendor Profiles
   Leaders
   Strong Performers
   Contenders
10 Supplemental Material

Notes & Resources
Forrester conducted product evaluations in June, 2016, and interviewed eight vendor and user companies: Adeptia, Dell Boomi, Flowgear, IBM, Jitterbit, Scribe Software, SnapLogic, and Workato.

Related Research Documents
The Age Of The Customer Is Shaking Up Integration Technologies And Practices
TechRadar™: Integration Technologies, Q2 2015
Vendor Landscape: Integration-Platform-As-A-Service
Cloud And SaaS Bring New Integration Challenges For Enterprises

The success of software-as-a-service (SaaS)-based systems of engagement, as exemplified by Salesforce, forces enterprises to reevaluate their application integration strategies. They need to ease integration with cloud-based solutions, avoid custom code, and improve agility while reducing the need for specialized integration skills. iPaaS can address these needs. Three drivers propel the adoption of integration tooling in the cloud:

› **Systems of engagement require dynamic integration.** SoE vendors like Marketo and Salesforce must continuously adapt to changing requirements. As a consequence, the interfaces with these SoEs must also continuously evolve: changing from batch to near-real time because of an omnichannel strategy, introducing a new attribute in the data schema, or changing from one API to a new version. Forrester calls this dynamic integration, and it requires continuous delivery of changes.¹

› **The overlap of data and apps integration requires convergence of integration tooling.** Most enterprises manage two separate integration solutions: 1) extract, transform, and load (ETL) solutions for data integration, often managed by the data warehouse team, and 2) an ESB for application integration, managed by an integration competency center. SoE project developers must choose which to use when their requirements bridge both and they're tempted to avoid the debate by hand-coding their own interfaces.

› **Large enterprises require tactical solutions for cloud integration.** A majority of large enterprises have heavily and strategically invested in ESBs to support their service-oriented architecture (SOA). While this investment is valuable for on-premises systems-of-records integration, it too often doesn’t support applications in the cloud, convergence of data and applications (being application-oriented), and dynamic integration needs. These large enterprises have the choice of either renewing their strategic ESB investments or complementing their ESB strategic investments with an iPaaS for cloud integration.

The Integration Landscape Consists Of Two Distinct Segments

Forrester differentiates two categories of solutions to cover firms’ needs for integration in the cloud. This Forrester Wave evaluation targets the second segment.

› **Hybrid integration is for all integration scenarios.** Hybrid integration offerings represent the strategic evolution of ESB, supporting both cloud and on-premises requirements and supplanting both ESB and ETL investments. These offerings form a single strategic vendor approach to an integrated integration landscape comprising API management, business-to-business (B2B), and internet-of-things (IoT) integration.

› **Integration-platform-as-a-service specializes for dynamic integration.** iPaaS is a simplified version of hybrid integration targeting two use cases: 1) allowing enterprises that have not invested in SOA infrastructure and that are moving to the cloud to adopt integration solutions rather than
coded interfaces and 2) allowing larger enterprises to complement their existing ESB on-premises investments with integration solutions for SaaS, delivering dynamic integration and making integration easier and faster to deploy.

**A Diverse Range Of Vendors Targets The iPaaS Market**

We have found iPaaS solutions from three distinct categories of vendors:

- **Large vendors like Dell Boomi or IBM with a broad offering suite.** These are firms that offer a full range of integration solutions, targeting the widest range of use cases, with just one iPaaS solution offering.

- **Small but long-established vendors like Adeptia, Flowgear, and Scribe.** These small vendors have had long experience, often more than 10 years, in the integration space in either B2B or data integration and are moving to the cloud to tap into a broader market, including small to medium-size businesses (SMBs), through independent software vendor (ISV) or OEM channels.

- **New, small, and innovative vendors like Jitterbit, SnapLogic, and Workato.** After 2010, integration veterans formed these vendors primarily for the cloud. They try to bring new concepts to ease integration, such as sharing templates and “recipes,” creating user communities, and targeting less-technical “citizen integrators.”

**Key Market Trends**

Through our research, we find that:

- **Integration technology has matured and customers are seeing the results.** Integration tooling technology is now mature. The few new entrants have senior, seasoned execs coming from previous generations of established on-premises vendors. Customer references reflect this maturity, although this may also be an outcome of cloud and as-a-service pricing. If customers aren’t satisfied, they tend to move on to another offering because they’ve invested little, even if a lack of portability from one vendor to another makes moving difficult.

- **“Citizen integrator” is more of a catchphrase than a reality.** Vendors are investing to democratize integration with visual programming for interface logic and graphical flow design. Despite these efforts, integration remains a complex domain that requires technology specialists, at least for preparation; testing; exception and error management; and deployment and administration. But the level of simplification achieved in current tooling does expand the integration market to smaller companies that are intimidated by ESB investments or are using external partners because they don’t have the right internal skills. The success of IFTTT and Zapier pushes existing integration vendors and new entrants to continue simplifying integration, but vendors always tend to add new features to deal with more-complex integration requirements, which actually increases complexity.
Vendors have very different offering strategies. There are huge capability differences among participants in this Forrester Wave. Dell Boomi and Jitterbit are seeking to address most use cases through an all-in-one product providing data and app integration, API management, B2B, and IoT integration scenarios. The need to train staff on a single platform provides advantages for customers, but this product strategy results in increased complexity and, typically, higher pricing. Other vendors, like Adeptia, Flowgear, and Scribe Software, orient more toward ISVs and systems integrators (SIs) that want to deliver additional managed services for their customers with simpler products and lower prices. SnapLogic and Workato provide powerful and innovative solutions while remaining simple enough to address citizen integrators with minimum training. The next release of Cast Iron from IBM represents another case; by sharing the same transformation engine between its App Connect low-end integration solution and its high-end iIB offering, IBM supports a range of complexity and developer skills.

iPaaS Evaluation Overview

To assess the state of the iPaaS market and see how the vendors stack up against each other, Forrester evaluated the strengths and weaknesses of top iPaaS vendors. After examining past research, user need assessments, and vendor and expert interviews, we developed a comprehensive set of evaluation criteria. We evaluated vendors against 32 criteria, which we grouped into three high-level buckets:

- **Current offering.** We evaluated each product against four primary capabilities: 1) integration scenarios supported; 2) management functions; 3) added capabilities for nonintegration specialists; and 4) platform characteristics. The assessment takes customer reference surveys into account. All evaluated products were publicly available before December 15, 2015.

- **Strategy.** In the strategy section, we analyzed vendors’ responses during their strategic briefings on our expectations for both midsize-market and larger enterprises. We specifically assessed the product strategy and the cost of products in light of their value-add and their direct and indirect market positioning.

- **Market presence.** We assessed market presence in the cloud through five primary criteria: installed base, revenue, revenue growth, employees, and commercial partners.

**Evaluated Vendors And Inclusion Criteria**

Forrester included eight vendors in the assessment: Adeptia, Dell, Flowgear, IBM, Jitterbit, Scribe Software, SnapLogic, and Workato. Vendor inclusion criteria include (see Figure 1):

1. **Interface development.** Each vendor must provide simple and medium-complexity interface development features (connectors, mapping, transport, and orchestration) between solutions that are mainly SaaS.
2. **Cloud availability.** The platform must be available in the cloud.

3. **Ease of integration development.** The platform simplifies the integration development and administration for nonintegration specialists through a combination of at least two of the following subcriteria: 1) citizen integrator capabilities; 2) out-of-the box but customizable templates; 3) proposed managed services; and 4) community exchange or purchasing-based marketplace of predefined integration.

4. **Pricing models.** Each vendor must have a predictable, simple, and public pricing model.

5. **Target markets.** Each vendor should demonstrate the ability to target SMBs, midsize enterprises, and large enterprises.

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**FIGURE 1** Evaluated Vendors: Product Information And Selection Criteria

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Product evaluated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell Boomi</td>
<td>Dell Boomi AtomSphere</td>
</tr>
<tr>
<td>IBM</td>
<td>IBM WebSphere Cast Iron Live</td>
</tr>
<tr>
<td>Workato</td>
<td>Workato</td>
</tr>
<tr>
<td>Scribe Software</td>
<td>Scribe Online</td>
</tr>
<tr>
<td>Jitterbit</td>
<td>Jitterbit Harmony</td>
</tr>
<tr>
<td>SnapLogic</td>
<td>SnapLogic Elastic Integration Platform</td>
</tr>
<tr>
<td>Adeptia</td>
<td>Adeptia Connect</td>
</tr>
<tr>
<td>Flowgear</td>
<td>Flowgear</td>
</tr>
</tbody>
</table>

**Vendor inclusion criteria**

1. Each vendor must provide simple and medium-complexity interface development features (connectors, mapping, transport, and orchestration) between solutions that are mainly software-as-a-service (SaaS).

2. The platform must be available in the cloud.

3. The platform simplifies the integration development and administration for nonintegration specialists through a combination of at least two of the following subcriteria: 1) citizen integrator capabilities; 2) out-of-the box but customizable templates; 3) proposed managed services; and 4) community exchange or purchasing-based marketplace of predefined integration.

4. Each vendor must have a predictable, simple, and public pricing model.

5. Each vendor should demonstrate the ability to target SMBs, midsize enterprises, and large enterprises.
Vendor Profiles

Forrester intends this evaluation of the iPaaS for dynamic integration market to be a starting point only. We encourage clients to view detailed product evaluations and adapt criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool (see Figure 2).
The Eight Providers That Matter Most And How They Stack Up

**FIGURE 2** The Forrester Wave™: iPaaS For Dynamic Integration, Q3 ’16 (Cont.)

<table>
<thead>
<tr>
<th>CURRENT OFFERING</th>
<th>Forrester’s Weighting</th>
<th>Adeptia</th>
<th>Dell Boomi</th>
<th>Flowgear</th>
<th>IBM</th>
<th>Jitterbit</th>
<th>Scribe Software</th>
<th>SnapLogic</th>
<th>Workato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration scenarios supported</td>
<td>20%</td>
<td>3.30</td>
<td>5.00</td>
<td>2.60</td>
<td>4.35</td>
<td>4.25</td>
<td>3.50</td>
<td>3.90</td>
<td>4.00</td>
</tr>
<tr>
<td>Management functions</td>
<td>30%</td>
<td>3.40</td>
<td>4.40</td>
<td>1.40</td>
<td>3.60</td>
<td>4.40</td>
<td>4.60</td>
<td>3.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Added capabilities for non integration specialists</td>
<td>30%</td>
<td>3.50</td>
<td>4.40</td>
<td>1.40</td>
<td>4.40</td>
<td>3.25</td>
<td>3.90</td>
<td>3.50</td>
<td>4.15</td>
</tr>
<tr>
<td>Platform characteristics</td>
<td>20%</td>
<td>3.30</td>
<td>3.65</td>
<td>2.50</td>
<td>4.10</td>
<td>3.30</td>
<td>2.80</td>
<td>2.85</td>
<td>4.20</td>
</tr>
</tbody>
</table>

| STRATEGY | | | | | | | | | |
| Product strategy | 50% | 3.32 | 4.68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cost | 40% | 3.80 | 4.20 | 3.80 | 3.00 | 2.60 | 3.80 | 0.60 | 5.00 |

| MARKET PRESENCE | | | | | | | | | |
| Installed base | 25% | 0.50 | 3.50 | 0.50 | 2.00 | 3.50 | 3.00 | 5.00 | 4.50 |
| Revenue | 10% | 0.00 | 5.00 | 1.00 | 3.00 | 3.00 | 3.00 | 3.00 | 1.00 |
| Revenue growth | 25% | 1.00 | 5.00 | 0.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Employees | 15% | 1.80 | 4.70 | 0.70 | 5.00 | 3.80 | 2.80 | 3.30 | 1.80 |
| Commercial partners | 25% | 1.00 | 5.00 | 1.00 | 4.00 | 3.00 | 4.00 | 1.00 | 4.50 |

All scores are based on a scale of 0 (weak) to 5 (strong).

**Leaders**

Dell Boomi. The Boomi division was founded in 2000, created its cloud iPaaS solution AtomSphere in 2007, and was purchased by Dell Software in 2010. Dell Boomi serves SMBs and large enterprises with a unified, multipurpose integration platform to address multiple use cases, master data management (MDM), electronic data interchange (EDI), and API management. Dell Boomi’s templates and crowdsourced data mapping suggestion capability enable it to support nonintegration specialists in a limited manner. Dell Boomi continues to innovate, introducing, for example, features like a new online community site and crowdsourced capabilities for support, suggestion, and error resolution. The vendor fits particularly well with SMBs looking for an all-purpose integration product to avoid investing in too many integration skills. Large enterprises can also adopt Dell Boomi as a tactical choice to complete their SOA strategic investments to cover cloud integration needs. Some large companies that are unhappy with their heavy SOA investments would benefit from turning to Dell Boomi as a strategic choice. Dell Boomi should guide integrators with governance and canonical formats to reduce the complexity of maintaining point-to-point interfaces.
› **Workato.** Workato, founded in 2013, delivers a powerful self-service application integration product with the goal of simplifying integration for both cloud and on-premises applications. Workato solves typical systems-of-engagement to systems-of-records workflow integration. It provides specific features for citizen integrators, such as recipes (templates); Smart Clone to copy/manage/deploy recipes; guided integration through Workbot for Slack; monitoring and administration of integration by consultants through its Aegis tool; and a concierge service to take care of operations. This product fits small and large companies that may or may not have all the skills necessary to administer integration operations.

› **Scribe Software.** Scribe was founded in 1995 with its on-premises integration product, Scribe Insight. It introduced Scribe Online, its online iPaaS, in 2011, and has grown its direct and indirect sales to SMBs and large enterprises; the iPaaS product provides less than 50% of this vendor’s revenue. Scribe is redeveloping its user interface under HTML5 and will release it in 2016, promising an easier-to-use environment, but it remains best suited for business analysts or integration specialists, either internal or external ISVs, or SI partners. Scribe fits particularly well with customers looking for front-office/back-office integration with CRM, enterprise resource planning (ERP), and marketing automation systems.

› **IBM.** IBM's iPaaS product Cast Iron belongs to a broader set of integration tools offered as part of the Application Integration Suite, which also includes IBM Integration Bus (IIB) and API Connect. Cast Iron is well known for on-premises uses and is now available in a cloud configuration in public, private, or hybrid mode. IBM has also released App Connect (not assessed in this Forrester Wave), which will address new business roles such as data scientists and business analysts to allow them develop their own interfaces without technology management help. Cast Iron is a good fit for IBM shops or companies that want to democratize integration to different stakeholders from citizen integrators, such as tech-savvy business users with App Connect, integration developers with Cast Iron, or integration competency centers with IIB.

**Strong Performers**

› **Adeptia.** Adeptia is a Chicago-based company founded in 2000 with a focus on the B2B integration business through its Adeptia Connect offering. It provides a cloud environment for fast partner data onboarding and an optional on-premises environment for more comprehensive integration scenarios. Adeptia Connect provides business process orchestration, connectors, and mapping for transformation. Although Adeptia aims to be a citizen integrator's B2B tool, the platform also allows technical users to deploy complex last-mile integration to internal systems that include publishing APIs and real-time data correction. Adeptia's strategy is to focus on companies that need to onboard customers and partners quickly and on those that fit particularly well with typical B2B integration service providers.
The Eight Providers That Matter Most And How They Stack Up

› **Jitterbit.** The Jitterbit Harmony platform addresses multiple integration requirements, including data, process, hybrid, B2B, real-time API management, and IoT integrations via a single, comprehensive platform. Jitterbit is available through direct sales teams in North America, Europe, and Asia and includes a free 30-day trial available from the website. It has a differentiated partner program with more than 200 resellers, technology companies, and independent software vendors, including Autodesk, Microsoft, NetSuite, Salesforce, and SAP, to deliver prebuilt integration solutions and templates for specific business and industry processes that enable business users and technologists to quickly connect applications, data, and business processes across on-premises and cloud environments. Jitterbit’s single, multitenant cloud platform fits particularly well with companies that are strategically moving to the cloud but need to connect with on-premises systems and databases. Jitterbit has 12 years of integration expertise, has 40,000 freemium and paid customers, and is based in the San Francisco Bay area.

› **SnapLogic.** Integration specialists founded SnapLogic to provide data and app integration for both expert and nonexpert, self-service integrators. Its SnapLogic Elastic Integration Platform can run on Amazon Web Services (AWS) or on its own cloud (Cloudplex) as well as within the firewall on Linux (Groundplex) or Windows or on a Hadoop cluster (Hadooplex). The most frequent configuration is a hybrid environment that combines cloud and on-premises execution (Cloudplex plus Groundplex). The platform works particularly well for building data lake architecture, generating MapReduce code, and using Spark language in a Hadoop environment.

**Contenders**

› **Flowgear.** Flowgear is a subsidiary of Global Micro Solutions, a South African marketing service provider (MSP) with a presence in the UK. It delivers a cloud integration platform to ease the development of application and data interfaces. Flowgear’s product primarily targets developers, who benefit from visual code, test, debug, and run interfaces in a production environment that they can transform into packaged products for their customers. Flowgear first developed its console for MS Silverlight and has now substantially migrated it to HTML5 while deploying the back-end workflow engine onto Microsoft Azure. Flowgear’s solution provides connectors, transformation, and scheduling capabilities and the ability to expose APIs by binding integrations to RESTful endpoints. The platform is particularly well suited to SaaS vendors, systems integrators, and ISVs as a solution for their SMB customers.

We invited Actian, E2EBridge, Microsoft, Terrasky, and Zapier to participate in this Forrester Wave, but they declined.
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Supplemental Material

**Online Resource**

The online version of Figure 2 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

**Data Sources Used In This Forrester Wave**

Forrester used a combination of three data sources to assess the strengths and weaknesses of each solution. We evaluated the vendors participating in this Forrester Wave, in part, using materials that they provided to us by May 1, 2016.

› **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.

› **Product demos.** We asked vendors to conduct demonstrations of their products’ functionality. We used findings from these product demos to validate details of each vendor’s product capabilities.

› **Customer reference survey.** To validate product and vendor qualifications, Forrester also conducted reference surveys with three of each vendor’s current customers.
The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don’t fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave evaluation — and then score the vendors based on a clearly defined scale. We intend these default weightings to serve only as a starting point and encourage readers to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve. For more information on the methodology that every Forrester Wave follows, go to http://www.forrester.com/marketing/policies/forrester-wave-methodology.html.

Integrity Policy

We conduct all our research, including Forrester Wave evaluations, in accordance with our Integrity Policy. For more information, go to http://www.forrester.com/marketing/policies/integrity-policy.html.

Endnotes

1 The dynamic nature of business in the age of the customer is forcing firms to partition their application landscape into systems of engagement and systems of records and glue them together using integration technologies that provide agility and context. New business requirements for agile, scalable, dynamic business ecosystems and the increasing need to implement cloud, process increasing data volumes, refresh data in real time supporting omnichannel, and provide end-to-end security mean that firms must renew their integration architecture. See the “The Age Of The Customer Is Shaking Up Integration Technologies And Practices” Forrester report.
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