

Cool Vendors in Integration, 2015

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Transformation of enterprises into digital businesses demands flexibility on how integration capabilities are achieved. Directors of integration can take advantage of innovative approaches from vendors to support emerging requirements.

Key Findings

- Phenomena such as cloud, mobile, social and the Internet of Things (IoT) are forcing directors of integration to rethink their strategies, which spurs attention to and experimentation with innovative technologies.
- The acquisition of established commercial integration tooling can be expensive. Open-source software (OSS) seeks to augment integration support for legacy mainframe and midrange environments.
- Businesses are seeking coordinated, yet flexible capabilities in integration tooling for linking data and processes to enable people and systems to interact seamlessly, as well as to overcome spreadsheet proliferation, which remains a largely unresolved integration hurdle.
- Easy-to-use, configurable technologies for consuming and building cloud-based, prepackaged integration flows (cloudstreams) are enabling consumers and business users to become citizen integrators in solving simple integration issues.

Recommendations

- Facilitate experimentation by making use of newer or alternative integration approaches and technologies, such as cloud-based tooling and open-source solutions.
- Focus on integration technologies that combine diverse types of data, applications and associated processes to allow easy access to data, regardless of its location.
- Give proactive support to the growing phenomenon of self-service integration efforts and adopt citizen integrator tooling that can address use cases that target end user productivity and emphasize rapid time to value.

- Gain experience in implementing cloudstreams for supporting user-driven integration tasks, as well as empowering IT teams to build cloudstreams that a wide range of projects can reuse. Evolve your integration capabilities accordingly.

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Analysis

This research does not constitute an exhaustive list of vendors in any given technology area, but rather is designed to highlight interesting, new and innovative vendors, products and services. Gartner disclaims all warranties, express or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

What You Need to Know

IT executives responsible for integration must enable their enterprises to adapt and rapidly interact with all aspects of business activities. But today's integration infrastructures often aren't up to the job. The Cool Vendors profiled in this analysis bring novel approaches to overcome traditional barriers in integration practices and technology capabilities. These vendors focus on:

- Providing simplified interaction with disparate and diverse applications, data stores, and cloud services, to enable business flexibility to work across systems and information landscape
- Addressing integration needs amid spreadsheet proliferation that remains largely unresolved in enterprises, and empowering business users to rapidly understand, model and link systems and operational flows
- Providing an open-source integration platform that enables the implementation of APIs to work with legacy mainframe-based (CICS and 3270) and AS/400-System i applications, reducing reliance on traditional closed-source enterprise service buses (ESBs) or legacy modernization tooling
- Offering technology capabilities to enable citizen integrators, which is an emerging role that attempts to perform do-it-yourself integration tasks without any support from IT departments or expert developers

Boardwalktech

Palo Alto, California (www.boardwalktech.com)

Analysis by Kimihiko Iijima

Why Cool: Boardwalktech Collaboration Platform (BCP) is a product for spreadsheet data management, making data in spreadsheets a part of enterprise data.

BCP has the unique capability to integrate data in spreadsheets in client devices (e.g., Windows PC and Mac), mobile devices (e.g., virtual machine for iOS and, in the future, Android), cloud (e.g., Google Apps) with on-premises back-end data sources (e.g., data warehouse) and applications (e.g., SAP). NoSQL types of data sources (such as Hadoop) can also be included as integration targets, as long as a ODBC/JDBC driver comes along. BCP synchronizes or propagates data from a cell (or range that represents a set of cells, either in series of columns or rows or both), not from a file or record.

Integration across spreadsheets and back-end data sources/applications is achieved in an event-driven real-time, bidirectional and online-/offline-enabled fashion, to support a single view. It allows individual spreadsheet users and application/data sources to change data (e.g., add, delete and update) independently, while it makes integration transparent to individual spreadsheet users or data sources.

The capability is enabled by the patented Boardwalktech App Engine, built on top of Microsoft SQL server as its enabling technology, which aims at eliminating check-in/check-out procedures and file exchanges, and keeping all cell change history for traceability or version management purposes. The SuperMerge functionality included in Boardwalktech App Engine enables visual (no programming), easy-to-use, rule-based integration configuration/execution, with features such as data transfer, validation, cleansing, transformation, aggregation/disaggregation, join, normalization/denormalization and building prepackaged adapters for data flow.

BCP has been proven in complex use scenarios, such as supply and demand planning, and revenue forecasting/cash management.

Challenges: BCP's emphasized capability for integration of data stored in spreadsheets is also its main limitation. As business users deal with more data residing outside spreadsheets because of phenomena such as context-aware/cognitive computing and digital business, Boardwalktech's focus may keep the vendor at the fringes of these new use cases.

BCP does not have API management capability. As the demand grows for more data to be shared and exposed, more data is becoming API-driven or API-enabled, and more data to/from the IoT should be connected with enterprise data. This lack of API support may limit BCP adoption.

While BCP supports Internet Explorer and Chrome, it does not support the Firefox OS, which has growing importance in JavaScript/browser technology.

BCP has its WebView component to support a mobile Web interface in the future, but it will not support hybrid mobile application architecture.

Who Should Care: Individuals in LOBs that develop spreadsheet apps, especially those with a focus on developing models and what-if analysis should look at Boardwalktech. Also, roles related to business process and applications in the IT division, in enterprises that face increasing pressure in managing the proliferation of spreadsheets across many individuals, divisions, on-premises/off-premises and mobile scenarios — should consider this vendor.

OpenLegacy

Princeton, New Jersey (www.openlegacy.com)

Analysis by Massimo Pezzini

Why Cool: OpenLegacy is a U.S.-based vendor with its roots in Israel, where its technology development and most of its current installed base is located. The company was incorporated in 2013 and it is fully funded by RDSeed, an Israeli investment company focused on technology startups.

The vendor provides the OpenLegacy software platform, focused on the legacy integration and modernization market, by combining a lightweight ESB capability with rapid mobile and Web development tools (see Note 1). The platform is strongly focused on supporting legacy back-end environments, such as IBM mainframes (CICS and 3270) and AS/400-System i — hence, its positioning as a legacy modernization tool and the "Legacy" part of the product's (and company's) name.

What sets the vendor apart from similar legacy modernization platforms is the "open" aspect. Not only is the technology largely developed on open-source technologies (e.g., Apache Tomcat, Apache CXF, AspectJ, Eclipse, Drools, Dojo and Spring [Framework, MVC and Mobile]), but it also is available as an OSS product (OpenLegacy Community Edition).

OpenLegacy's business model is based on the classic professional open-source approach:

- The free and open-source OpenLegacy Community Edition is used to generate awareness, skills and adoption, and to collect technical improvements and third-party add-ons.
- The OpenLegacy Pro Edition is the upselling opportunity that provides, through a subscription model, additional features (such as security, role management, performance tracking, deployment options, automated API testing and remote procedure call [RPC] adapters into back-end systems) and technical support.

OpenLegacy is still in startup mode. It currently has about a dozen paid clients, primarily using the OpenLegacy tools to integrate/modernize AS/400-System i and, in fewer cases, mainframe applications.

The product roadmap for the next 12 months, includes a lightweight orchestration capability, workload manager for load balancing, security enhancements, and additional connectors for

Natural/Adabas and IMS on the mainframe, for popular relational database management systems (RDBMSs) and for SAP applications.

Challenges: The success of OSS technology is strictly related to the size and commitment of the associated community. With hundreds, if not thousands, of OSS projects in the market competing for developers' attention, it won't be easy for OpenLegacy to develop a sizable and active ecosystem, also considering that its target market (mainframe and AS/400-System i users) is rather conservative and not necessarily willing to commit resources in support of OSS projects.

Although OpenLegacy availability as OSS is a powerful and original differentiator against traditional legacy integration/modernization vendors (such as GT Software, HostBridge Technology, Rocket Software, IBM and others), those vendors have had veteran, very mature tools in the market for 10 to 15 years. Therefore, conservative and risk-averse clients may still prefer these well-established products, despite their closed-source nature, because of their greater technical maturity, established track record and proven longevity in the market.

The legacy modernization/integration market is as big as the legacy system installed base, which is contracting for all these products. Moreover, many mainframe or AS/400-System i clients also adopt packaged applications, custom Java or .NET applications, RDBMS-based applications, and a variety of other technology environments. Therefore, to respond to its clients' requests for more connectivity and to extend its addressable market, OpenLegacy will be forced to support — possibly with the help of the community — a growing number of back-end systems. This will risk diluting its current legacy integration/modernization focus, and will put it in more direct competition with open-source ESB providers (such as MuleSoft, Red Hat, Talend and WSO2), which already have significant market traction and established communities.

Who Should Care: Directors of integration or other IT leaders involved in legacy modernization or legacy integration initiatives and projects should look at open-source platforms such as OpenLegacy for their low cost of entry, flexibility and, potentially, available skills pool. These products are especially suitable for time-constrained and low-budget adaptive integration projects (for example, mobile app developments and API initiatives).

However, IT leaders should also be aware that traditional closed-source products may provide more mature and advanced functionality; therefore, their use cannot be ruled out, as the OSS alternatives may not currently meet all their requirements.

TechConnect IT Solutions

Queensland, Australia (www.universalplatform.com)

Analysis by Eric Thoo

Why Cool: Universal Platform is an integration platform as a service (iPaaS) offering of TechConnect IT Solutions, a company incorporated in Queensland, Australia. Universal Platform provides tooling for business-facing users to amass data of interest and to connect with application activities. This is done through a single integration environment where users can interact with business flows, such as ingesting data in SaaS applications and visualizing it on a Google map, or

creating flows of LinkedIn contacts that deliver content to Dropbox. Universal Platform supports workload scaling according to demand of integration activities where runtime executions can be shared across nodes, as well as contained to a set of specific nodes in cases where dedicated performance is required for different departments. Without technical development effort, users are aided in understanding, modeling and manipulating data and processes to achieve the system integration they seek.

For supporting flexibility of configuration and reuse, the development environment offers decoupled tiers of modeling capabilities for:

- Interface coverage, such as Web, mobile and desktop
- Integration artifacts, such as transformation, cloud service integration and data model
- Deployment on Amazon Web Services and Microsoft Azure

Extending the applicability of the technology, a focus on master data management relates Universal Platform to information management scenarios. Deployment of extraction, transformation and loading (ETL) tasks for delivering data to a master data model, along with the availability of logs and audit trails of information flows, contributes to data governance and support for compliance requirements.

Universal Platform is licensed at the same price, whether organizations choose to deploy the integration tooling on-premises or to consume the functionality as cloud services.

Challenges: While Universal Platform addresses the increasing demand for cloud-based deployment of integration capabilities, the vendor has limited market visibility. The vendor will need to educate buyers about the value of Universal Platform's business-user-oriented characteristics, and convey to organizations the opportunities of alternative integration tooling that is lightweight and plays a relevant complementary role to integration strategies and infrastructure in enterprises.

Who Should Care: Integration teams seeking to empower business roles with capabilities to model, ingest and share data, and augment business flows, despite the obstacles of different terminology and complexity that may exist across departments and systems, should consider this vendor. Universal Platform can support information architects and business analysts to interact and jointly anticipate integration requirements through understanding patterns and uncovering valuable information, and by optimizing activities rapidly according to business demands.

Zapier

Mountain View, California (www.zapier.com)

Analysis by Massimo Pezzini

Why Cool: Zapier is a privately owned, U.S.-based cloud service company incorporated in 2011 and funded by Y Combinator and Bessemer Venture Partners.

The vendor provides the Zapier cloud service targeting the emerging citizen integrator market. The Zapier service is iPaaS-equipped with a wide range of prepackaged, cloud-centric integration

content (cloudstreams) targeting a variety of use cases. Gartner calls such a combination "integration software-as-a-service (iSaaS)."

Zapier enables non-IT skilled business users and consumers — that is, citizen integrators — to develop simple point-to-point integration flows (called "Zaps"; see Note 2) between cloud-based applications. Zapier provides a rich collection of several hundred of predefined Zaps, but citizen integrators can also develop their own integration flows by customizing predefined Zaps or implementing new ones, linking the over 400 applications for which an application adapter (called an "App") is available in Zapbook (Zapier's marketplace). Professional enterprise integration developers, independent software vendors/SaaS providers and system integrators can use the free Zapier developer platform to create their own Apps. Actually, over 75% of the Apps currently in Zapbook are provided by third parties. A Web-based monitoring console is available to users so that they can track their activity.

The Zapier service is for free for users leveraging up to five Zaps and running up to 100 tasks (a task is a Zap execution). For greater numbers of Zaps and tasks, as well as to get customer support, users must subscribe to one of the Zapier plans, for which prices range from \$0 to \$150 per month.

Zapier adoption is growing rapidly. In 2014, Zapier processed more than 580 million tasks and the vendor claims over 500,000 users for the platform (although it doesn't disclose how many are paid clients), up from about 200,000 at the beginning of 2014. For the most part, these users are located in North America, but the company claims users worldwide. Zapier users are primarily individuals working for large organizations, as well as for small or midsize businesses.

Challenges: The citizen integrator phenomenon is in its early stages, but the market is already overcrowded with dozen of pure-play iSaaS providers that entered the market during the past 12 to 24 months. The traditional integration platform vendors and iPaaS providers have zeroed in on the opportunity and are developing (and, in some cases, have already released) Zapier-like tools. Zapier and some of its direct pure-play competitors have much more mature iSaaS offerings than the established integration players. However, these veteran integration providers know all too well how to deal with enterprise sales. Moreover, they can offer iSaaS addressing on-premises integration, which is a scenario that pure-play iSaaS providers have challenges supporting. Finally, traditional integration players may be more effective in plugging their citizen integrator tools into the established security and governance frameworks.

Therefore, Zapier will not only have to struggle to differentiate from other pure-play iSaaS providers, but increasingly also with traditional integration players looking at citizen integrators as natural extensions of their traditional markets.

Who Should Care: Directors of integration, or other IT leaders involved in implementing bimodal integration strategies and willing to delegate responsibility for simple point-to-point integration to citizen integrators, should look at offerings such as Zapier as reasonably proven and business-user-friendly tools. However ease of use, the wide availability of cloudstreams and prepackaged adapters should not be considered as the only evaluation criteria. Extensibility of the platform, availability of a professional integration developer toolkit, monitoring tools, and an ability to plug into the organization's security and governance frameworks should also be taken into consideration.

Gartner Recommended Reading

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

"New Integration Strategies and Technologies Target the Digital Business"

"The Integrator's Dilemma: Can a Bimodal Approach Balance Integration Agility and Control?"

"Embrace the Citizen Integrator Approach to Improve Business Users' Productivity and Agility"

"Aligning Application and Data Integration Delivers Synergy in Disciplines and Technologies"

Note 1 How OpenLegacy Works

OpenLegacy's ESB capability makes it possible for developers to map back-end applications and data into automatically generated front-end Java objects. Those objects can be consumed by Java custom-developed applications, but the vendor also provides a set of "accelerators." Those are tools that automatically map the autogenerated Java objects into RESTful or Web services APIs, or generate Web (HTML5) or mobile (AngularJS, jQuery-based) applications that developers can then customize and further extend through the Eclipse-based OpenLegacy integrated development environment (IDE). The IDE is also used to inspect the native interfaces of back-end applications', and to generate the associated Java objects. The analysis is performed via customizable Drools rules. The code generation process is also customizable.

Note 2 How Zapier's Zaps Work

A Zap is defined in the form of a trigger (an event detected in the source application) and an associated action (an operation invoked in the target application). Filters can be inserted in a Zap to condition the execution of actions. Each App comes with a predefined set of possible triggers and a specification of the object that can be inserted when the app is subject to an action. This object is populated by associating output fields of the trigger with the fields of the object itself.

This simple model proved quite effective at supporting a wide range of use cases. The most commonly used include saving new form submissions in Google Sheets, adding tasks to Google Calendar, getting notifications of updates to Google Sheets, adding tasks recorded in Evernote to other applications, updating MailChimp email lists from form entries and many other similar use cases.

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